Aegean - Egyptian relations
c 1900 - 1400 BC
Volume 1
Marsia Bealby
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Respice, adspice, prospice
This thesis explores the mechanisms of relations between the Aegean (focusing on Crete and Aegean islands such as Thera) and Egypt (including the Hyksos) from 1900 to 1400 BC. A fundamental tool has been the creation of a searchable database of the portable finds (at the moment, a unique resource) classified as Aegean, Egyptian, Aegeanising, Egyptianising, etc. In addition, the Avaris frescoes and the Aegean processional scenes in Thebes were examined in detail.

Two approaches were applied to this evidence of Aegean-Egyptian interactions: World Systems Theory, applied here consistently and in depth (as opposed to earlier, broader discussions of Eastern Mediterranean interactions) and, for the first time in this field, Game Theory. The principles of this approach have been tested and found valid for this data. In contrast to World Systems Theory, Game Theory highlights the role of individuals in Aegean-Egyptian interactions, and not solely the roles of states. It has also enabled the exploration of the causes behind historical events and the mutual benefits of contact, as well as emphasising the factors that promoted mutual stability in the Eastern Mediterranean.

As a result it has been possible to show that the Aegeans were key players in Eastern Mediterranean relations.
To Martin who is always beside me along my path
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A
Aegeaca, Aegeanising, Aegyptiaca, Anathema, Antique artefacts (or heirlooms),
Archipelago, Artefacts of foreign inspiration, Assimilation, Autarky

B
Barter economy, Brotherhood, Buon fresco (or: al fresco)

C
Capital (economic term), Capitalism, Cliodynamics, Colonialism, Colonisation,
Command or mobilisation economy, Comparandum, Conflict Theory, Crafts-worker,
Cultic, Cyclades

D
Daemon or Demon, Decision Theory, Diaspora, Diplomacy, Disturbed archaeological
deposit

E
Egyptianising, Egyptomania, Elite, Emporium, Entrepreneurship, Equilibrium (=Nash
Equilibrium), Evolutionary Game Theory, Exotica

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Flying gallop

Game, Game Theory, Gateway, Gift exchange or 'greeting gifts', Genius, Gravidenflasche.

Hellenorientalia, Historic recurrence, History of Game Theory, Horror vacui, Hotelling's model of spatial competition.

Imitations of foreign items, Imperialism, Innovation, Integration, Intonaco

no terms

Kantharos, Koine

Levant, Locally produced, made of foreign material artefacts, Luxury goods

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\( M \)
Magazine, Market, Market economy, Mercandilism, Middleman / intermediary, Minoica, Minoanising, Mixed economy, Modified exotica, Monetisation, Multiculturalism

\( N \)
Network Theory, Networking

\( O \)
Orientalia

\( P \)
Parturient, Pharaoh, Player, Private accumulation, Protocapitalism, Public accumulation

\( Q \)
nos terms

\( R \)
Rationality and learning process in games, Reciprocal or customary economy, Replicas of foreign artefacts, Repoussé, Revenue or redistribution economy, Rivalry

\( S \)
xI
Schnabelkanne, Secco (or: al secco), Seals and sealings, Sedentism, Seriation, Sinopia, Sociocultural evolution, Souvenir, Sphinx, Staple goods, Stela, Strategic form games, Surplus, Sympathetic magic.

\[ T \]
Taxation, Thalassocracy, Theme, Theoretical approaches of ancient economy, Theory of moves, Trade, Trader -and other professional - 'guilds', Traders, Traders' class, Traders' multiple careers, Transculturalism, Travelling professionals (artisans / craftsmen, traders, etc.), 'Treaty' trade, Tribute

\[ U \]
Upper and Lower Egypt

\[ V \]
no terms

\[ W \]
Wealth accumulation → prestige, 'Western String', World economy

\[ X \]
Xenomania

\[ Y \]
LIST OF COMMON ABBREVIATIONS USED IN THIS THESIS

In alphabetical order:

A: Aegean (in chapter Four: discussion of the Kom el-Hetan list only)
A-E: Aegean - Egyptian
A-H: Aegean - Hyksos
AD: Anno Domino
a.k.a: also known as
Akr: Akrotiri
BC: Before Christ
BD: Book of the Dead
BCE: Before common era
c: circa
C-E: Cretan - Egyptian
C-H: Cretan - Hyksos
cm: centimetres
CMLS: Cultural Multilevel Selection
Abbreviations on the list of publications and internet resources

An attempt has been made to provide all most common abbreviations. For any undefined abbreviations, the thesis follows the list of abbreviations provided by the American Journal of Archaeology, accessed on http://www.ajaonline.org/pdfs/111.1/AJA1111_Editorial_Policy.pdf, the Egyptologists Electronic Forum (EEF) on http://www.egyptologyforum.org/EEFrefs.html and the Journal of Egyptian Archaeology on http://www.ees.ac.uk/userfiles/file/JEA-abbrev2-1.pdf. For any undefined sources related to sociology, the world systems theory, game theory, politics and economics see the journal abbreviations on http://www.aqualight.info/journal_abbrevs/abbreva.htm.

A.A.A. = Athens Annals of Archaeology

(A) BSA = Annual of the British School at Athens

AD = Archaeological Dialogues

AfO = Archiv für Orientforschung

AJA = American Journal of archaeology

Ä&L = Ägypten und Levante

Am. Sociol. Rev. = American Sociological Review

ANES = Ancient Near Eastern Studies journal.


ANNU REV SOCIOL = Annual Review of Sociology

ArchEph = Αρχαιολογική Εφημερίδα / Αρχαιολογική Εταιρεία

AS = Anatolian Studies

ASAtene = Annuario della Scuola archeologica di Atene e delle Missioni italiane in Oriente.

AWE = Ancient West and East

BAR = British Archaeological Reports, International Series
JPR = Journal of Prehistoric Religion
JPS = Journal of Peasant Studies
JRSM = Journal of the Royal Society of Medicine
JSSEA = Journal of the Society for the Study of Egyptian Antiquities
JWCI = Journal of the Warburg and Courtauld Institute
ICE = International Congress of Egyptologists
ICS = International Congress Series
(M)IFAO = (Mémoires publiés par les Membres de l'I) Institut français d’archéologie orientale
IJNH = International Journal of Nautical History
INT SOC SCI J = International Social Science Journal
KrChron = Κρητικά Χρονικά (Kretikà Chronikà)
LÄ = Lexikon der Ägyptologie
MAA = Mediterranean Archaeology and Archaeometry
Mar Mirror = The Mariner’s Mirror
MDAIK = Mitteilungen des Deutschen Archäologischen Instituts, Abteilung Kairo
Medizinhist J = Medizinhistorisches Journal
MedMusB = Medelhavsmuseet Bulletin
Misc. Wilbouriana = Miscellanea Wilbouriana
OAth = Opuscula Atheniensia
OJA = Oxford Journal of Archaeology
ÖJh = Jahreshefte des Österreichischen archäologischen Instituts in Wien
OLA = Orientalia Lovaniensia Analecta
OpArch = Opuscula Archaeologica
PEQ = Palestine Exploration Quarterly
PLoS ONE = Public Library of Science
PM = Palace of Minos (Evans, A.)
PNAS = Proceedings of the National Academy of Sciences of the United States of America
PZ = Prähistorische Zeitschrift
ΠΑΕ = Πρακτικά Αρχαιολογικής Εταιρείας
Q J ECON = Quarterly Journal of Economics
RDAC = Report of the Department of Antiquities, Cyprus
RdE = Revue d' Égyptologie
RIHAO = Revista del Instituto de Historia Antigua Oriental
SAGA = Studien zur Archäologie und Geschichte Altägyptens
SAK = Studien zur Altägyptischen Kultur
SCIEM = Synchronization of Civilizations in the Eastern Mediterranean in the Second Millennium Before Christ
SAK = Studien zur Altägyptischen Kultur
SIMA = Studies in Mediterranean Archaeology
SMEA = Studies in Mediterranean Archaeology
SSEA = Society for the Study of Egyptian Antiquities
TAW = Thera and the Aegean World (Thera Foundation)
Third World Q = Third World Quarterly
Urk. = Urkunden des aegyptischen Altertums
(V)ÖAW = Verlag der Österreichischen Akademie der Wissenschaften
Wb: Berlin-Brandenburgische Akademie Der Wissenschaften

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In the thesis proper and in the appendices, the initials of the scholars who studied the finds are placed straight after the number of the entry in the references. For example, Karetsou et al. 2000a: 181 [168] (Π.Σ.) where Π.Σ. is the name of the scholar who studied item [168], i.e. in this case, Π. Σαπουνά.

P.B. Ph. Betancourt B.Z. B. Ζωγραφάκη
M.B. M. Bietak Ελ.Κ. Ε. Καβουλάκη
G.C. G. Cadogan Α.Κ. Α. Κάντα
J.N.C. J.N. Coldstream N.K. N. Καραμαλίκη
D.E. D. Evely B.N. Β. Νινιού-Κινδέλη
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E.V. E. Vassilikα M.N.-Κ. Μ. Νικολακάκη-Κέντρου
J.W. J. Weingarten Μ.Π. Μ. Παναγιωτάκη
T.W. T. Whitelaw N.Π. N. Παπαδάκης
B.A. B. Αποστολάκου Δ.Π.-Μ. Δ. Παπάγου-Μανιούδάκη
K.G. K. Καλανάκη Δ.Π. Δ. Πλάτων
N.Δ. N. Δημοπούλου Σ.Π. Σ. Πρέβε
M.E. M. Εγγλέζου Π.Σ. Π. Σαπουνά
**SOURCES OF MATERIAL**

**Software used for the making of this thesis:** Linux Operating System and particularly the Open-Office software.

**Tables:** All tables are made by the author, apart from (tables 8, 16). The sources of information for the making of these tables and charts are specified in the caption of each table.

**Maps:** All maps, apart from (map II), are drawn by the author. The primary or secondary sources of these maps are mentioned in the map captions.

**Texts / written sources:** *JSESH* ([http://jsesh.qenherkhopeshef.org/](http://jsesh.qenherkhopeshef.org/) for Linux) has been used for Egyptian texts. Some hieroglyphic texts are taken by Thesaurus Linguae Aegyptiae ([http://aaew2.bbaw.de/tla/servlet/TlaLogin](http://aaew2.bbaw.de/tla/servlet/TlaLogin)), an online resource that offered significant support to the author with respect to linguistic needs. The online Perseus Project (*Liddell-Scott-Jones*) ([http://www.perseus.tufts.edu/hopper/search?redirect=true](http://www.perseus.tufts.edu/hopper/search?redirect=true)) assisted with the needs of the Ancient Greek texts.

**Clip-art:** Black and white 'clip-art' in the main body of the thesis: these are taken by [http://etc.usf.edu/clipart/](http://etc.usf.edu/clipart/)

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TABLE OF CONTENTS OF SPREADSHEET AND DETAILS OF INDIVIDUAL SHEETS (sheets are named and numbered from left to right)

A copy of this document is also provided on the spreadsheet (sheet: 'manual')

Appendix of chapter 4

- **Manual**: Table of contents, instructions and permission. This menu is also provided on the spreadsheet.

- **Table 1**: World systems chronological links

- **'Crete (Phillips)'**: This catalogue contains a large number of Aegyptiaca from Crete, as presented in the publication of Phillips 2008. Phillips' catalogue numbers are used. Many of these items have been examined in other publications (e.g. Lambrou-Phillipson 1990; Cline 1994, Karetsou et al. 2000,
etc.). Therefore, further references are provided, together with sources presenting the items with a picture or drawing.

- 'Crete (Karetsou)':[The list contains a number of Aegyptiaca from Crete, discussed in Karetsou et al. 2000 but not included in Phillips 2008. The 'Karetsou catalogue' numbers are used.]

- 'Off-island (Phillips)': This is a list of some of the so-named 'off-island' Aegyptiaca of Phillips 2008. Phillips' 'off-island' group contains items found away from Crete, in the Aegean islands or in Mainland Greece, but have a special connection to Crete. Phillips' catalogue numbers are used by the current author.

- 'Thera (Karetsou)': This sheet contains a list of Theran Aegyptiaca presented in Karetsou et al. 2000. Phillips 2008 does not mention these items, therefore they had to be listed separately on the spreadsheet. The catalogue numbers of the 'Karetsou catalogue' were maintained by the current author.

- 'Thera (Warren)': The sheet presents an Egyptian vase from Thera, discussed in Warren 2006. This item is listed separately, owing to its value for the Aegean – Egyptian synchronisms.

- 'Rhodes (Cline)': Only two examples of Aegyptiaca are listed from Rhodes – and these are presented as in Cline 1994. The author has maintained Cline's catalogue numbers and provides further references.

- 'Egypt (Kemp & Merrillees)': This list mentions a number of Aegean and Aegeanising items and iconographic elements from Egyptian sites. The vast majority of the information derives from Kemp and Merrillees 1980, and the items are presented exactly as they were presented in this publication: with their individual excavation number or their museum number or other individual titles
(e.g. dolphin vase'). Some 'fresher' references with 'updated' views are also provided, along with the sources of pictures.

- 'Egypt (other)': This list discusses nine Aegean and Aegeanising items and iconographic elements from Egyptian sites. The information derives from various publications, excluding Kemp and Merrillees 1980, as these researchers have not discussed these particular items in their publication. For convenience, and to differentiate them from items from other publications on this spreadsheet, the author has given these entries an individual number (M+number). These nine items – contrarily to all other items presented in this spreadsheet - were the only items that received an individual number by the author of this thesis.

- 'Texts': This list includes a number of Egyptian and Aegean texts enlightening the nature of Aegean - Egyptian relations. Only the date and translation of these texts is provided, as the author does not aim at their linguistic and semantic analysis. However, further references are provided should the reader wish to study the texts in depth and in the original.

**Appendix of chapter 5**

- 'Avaris frescoes': This searchable catalogue is a 'bite-size' overview of the Aegean frescoes at Tell el-Dab'a, based on previously-published material that has examined these wall-paintings (e.g. Bietak et al. 2007; Marinatos 2010b; Morgan 2010a,b, etc.). The information is divided into 5 groups, according to iconographic elements: I) scenes depicting bulls and acrobats, II) landscapes (including flora), III) fauna and hunt scenes, IV) human representations and V) emblems and patterns. References and sources of images are also provided.

**Appendix of chapter 6**

- 'Aegean processional scenes – Thebes': presentation: This catalogue, which is a
synoptic overview of the work of Wachsmann (1987), is provided for reference only. It contains a brief discussion of the items brought to the Egyptian Court by Aegean and 'quasi-Aegean' men in the Aegean processional scenes in Thebes, and investigates the depicted items' origin, occasionally comparing them with archaeological finds from the Aegean and beyond. A brief discussion of the physical characteristics and clothes of the bearers is also undertaken. Where the names of the nobles are used, the tombs are implied (e.g. 'in Rekhmire' = in the tomb of Rekhmire). The information – which is read sideways - is grouped by item type (e.g. jars or jugs), and the catalogue is fully searchable. Further references and sources of images are provided.

**HOW TO USE AND SEARCH THE SPREADSHEET**

**Groups of evidence / material culture:** The evidence is grouped into individual sheets: 8 sheets on artefacts, 1 sheet with inscriptions, 1 sheet presenting the Avaris frescoes and one sheet presenting the Aegean processional scenes. Apart from material culture, there is also 1 sheet with EM chronological links.

**Sheets of artefacts:** The artefacts are presented on the basis of a) where they were found (e.g. Crete or Egypt) and b) their publication in a catalogue (e.g. Phillips 2008 or Karetsou et al. 2000). Most sheets are based on one single publication (see the names and regions of the different sheets), apart from 'Egypt (other)'. The 8 sheets that list archaeological artefacts provide – on account of the individual catalogues – the following information about the items:

1) the item's identity (e.g. statuette);
2) where the item is / was stored and what museum catalogue number it has received;
3) where the item was found (wider region);
4) the exact area where the item was found (archaeological site and location);
5) the suggested date for the item;
6) major disagreements concerning the suggested date;
7) the date/s of the archaeological context in which the item was found;
8) type of context (e.g. domestic);
9) the item's suggested original provenance (e.g. Egyptian);
10) major disagreements concerning the original provenance and who has expressed these disagreements (e.g. Syrian – Lilyquist 1996: 116);
11) any distinctive artistic motifs and / or a keyword (e.g. Minoan Genius);
12) if the item is reworked and / or an antique in its archaeological context;
13) where the reader can see a good quality picture or drawing of the item, and
14) any correspondence to other major publications.

For specific items only, which are mentioned as examples in this thesis, the following information is also provided at the far end of the spreadsheet (the titles of these additional columns with data are given on a light orange background):
14) if the item was handled by the author of this thesis;
15) comparanda and iconographic parallels;
16) further references; 17) author's comments, emphasis and any additions and 18) a drawing or picture in this thesis (if applicable).

**Texts**: Texts are given in translation, for reference only. A date for the texts is also provided. A list of bibliographical sources with further information accompanies every text.

**Avaris frescoes**: these are discussed individually in the penultimate sheet. The catalogue is not complete. Rather, the sheet provides an overview of the frescoes' iconography, often mentioning selective fragments as examples. The discussion is divided into iconographic groups (e.g. taureador scenes).

**Aegean processional scenes**: Again, the final sheet presents an overview of these scenes. Physique, attire and items are briefly examined.
• **Item identification**: For convenience, the author has maintained the catalogue numbers of the items, exactly as these are presented in major publications. For example, if Phillips 2008 uses a specific catalogue number for an item (e.g. number 4, for alabastron type C, HM Λ 343 from Haghia Triadha), the same catalogue number is used by the current author throughout the thesis. The reason that this is done is simple: it is easier for the reader to access the detailed information about an item in a major catalogue, if the catalogue numbers used by the current author and the author of the major publication are the same. All authors have listed the artefacts with a current number; for instance Phillips 2008 lists 596 items, giving them a number from 1 to 596. Only Kemp and Merrillees 1980 have presented their Aegeaca with an excavation number and / or museum number, instead of giving them a current number – but these numbers are also used by the current author for convenience. The item on the sheet 'Thera (Warren)' is also identified with the excavation number as Warren 2006 is not a catalogue but a study researching Aegean – Egyptian chronological links. However, for the sheet 'Egypt (other)' the current author had to identify the items with her own current numbers (M1001 to M1009) as these came from various catalogues, and it was easier and clearer 'renumbering them' than to provide their museum catalogue number when referring to them. For the identification of the items with respect to the individual catalogue one or two initial letters of the authors or editors accompany each catalogue number. For instance 'K6' corresponds to the catalogue of Karetsou (K = Karetsou et al. 2000) and the item with the catalogue number 6, i.e. the anthropomorphic figurine from Platanos. The key for the identification of the catalogues is provided in the yellow background, on the top of this page and on the top of each individual sheet of artefacts.

• **Location and site identification: distinguishing between sheets**: Every sheet lists items from the same region (e.g. Crete), apart from 'off-island (Crete)' which lists items from various Aegean regions. The sheets 'Egypt (Kemp and Merrillees)' and 'Egypt (other)' cover the whole of Egypt. Some catalogues deal
with more than one region, therefore the data are spread into several sheets, but the 'key' for their identification (see yellow background on top of this page) is maintained. For instance, P4 from Crete is on 'Crete (Phillips)' whereas P584, also from Phillips, being from Kythera, is listed on the 'off-island (Phillips)' sheet. The thesis always specifies the site on which an item was found, thus directing the reader to the right spreadsheet, so that confusion is avoided between e.g. searching a 'P' item on 'Crete (Phillips)' or on 'off-island (Phillips)'. For Phillips 2008 in particular, there is a 'trick' to distinguish if an item was found on Crete or at a region listed as 'off-island'. Her 'off-island' items (volume II, 2008), take a number greater than catalogue number 576, with P577 from the 'Aegina treasure' being the first item to be listed on the 'off-island' group; and P596 from Pylos being the last artefact listed in the same group. To sum up: if P577 or greater, the item was found off-island. If P576 or lower, the item was found on Crete.

- **Understanding the catalogues:**

  **The columns with a heading on a light orange background:** all the data of this spreadsheet are based on the catalogues of previous researchers (see individual names of sheets), but anything that is in columns with a light orange background includes the personal contribution or view of the author and / or adds to the discussion of the items that are used in this thesis as examples. As such, all items used as examples in this dissertation (whether handled by the author or not) are given additional references and comparanda.

  **Brackets on the description of the items:** occasionally Phillips and other catalogue authors provide various names to identify the objects (e.g. P5 on Crete (Phillips') is named 'Jar (spheroid jar)'). The author of this thesis has kept the descriptions of items exactly as these are presented in major catalogues.

  **Brackets on dates:** these are maintained exactly as the authors of the catalogues
provide them.

**Stored at / catalogue numbers**: all Greek letters have been maintained in the museum catalogue numbers.

**Abbreviations**: Abbreviations of Museums or excavation numbers: the author has tried to use a standard list of abbreviations in the thesis or avoid abbreviations when these become confusing, but the reader is advised to look at the individual publications for the preferred abbreviations of the catalogue authors, as these are maintained on this spreadsheet. For instance, in Phillips, the museum, excavation number and bibliographical abbreviations are provided in 2008: vol. 1: 246-247 and vol. 2: concordances, e.g. HM for Herakleion Museum. Abbreviations of dates: as in Phillips 2008: vol. 2: 417 and the list of abbreviations in the thesis.

**Spelling of sites**: spelling varies for the names of foreign regions (e.g. Aghia Triada / Haghia Triadha), as different authors favour different spelling. Including multiple spellings makes the database easier to search.

**Problematic site, location and context**: when site, location and context are problematic (e.g. the site or the archaeological context is unknown) the corresponding cells provide information about the problem.

'n/a': If something is not applicable, 'n/a' is used. 'n/a' is also used instead of the cell being left blank.

**Suggested date and disagreements in date**: these often cover a wide chronological period, or vary. The views of individual authors are maintained exactly as they are in the catalogues.

**Type of context**: this is based on the description of the authors in the catalogues.
Sometimes this information is missing or unknown, and the current author states so.

**Artistic motif /keyword**: these cells do not provide a detailed description of the items but rather, the 'keywords' and 'individual characteristics' that would identify them and link them to similar items (e.g. Minoan Genius'). No details are given about the shape of vessels, as, because of the individuality of vessels, grouping them together might be speculative.

**Hieroglyphic inscriptions / signs**: these are not provided in detail in the 'artistic motif / keyword' column. Please see the relevant publications for details.

**Provenance**: only original provenance is given. If the item was reworked in a new environment (e.g. it is Egyptian with Minoan alterations), the column of 'antiques / reworked' and the column of suggested date specifies so. There, the item is marked as 'reworked'.

**Reworked or antique**: this column only specifies if the items are reworked and / or antiques, on the basis of the catalogues and the comparison of the archaeological context and the suggested date for the items.

**Drawings and pictures**: these direct the reader to the major publications on which the information is based, and where a good drawing or (preferably) a coloured picture can be seen. Occasionally the author provides her own pictures for the finds (column 'picture or drawing in this thesis').

**Handled items**: Some items have been handled by the author of this thesis, or even seen in museums. The author often adds her own views and thoughts about these items, or other items that she has not handled, but are used in this thesis as examples.
**Question-marks:** The use of question-marks signifies that the various authors are not certain about something, e.g. a region, a date or a status. For instance, when 'antique?' is used, the status of an item as an antique in its content is possible but uncertain.

- **Viewing the catalogues:** The top (header) of each sheet is 'locked' and 'frozen' so that the 'key' and column titles are permanently in view. Click on the bar with the sheet titles (on the very bottom of the spreadsheet) to navigate between the different sheets and types of evidence. The use of the zoom feature can sometimes offer a better view of the document.

- **Searching the catalogues:**

  *Searching the libre office spreadsheet: (.ods)*

  'Edit' (top bar)+select option 'Find', or cntrl+F for a quick search on a specific sheet. After 'Edit' (top bar) and the selection of option 'Find', the reader can navigate from one result to the next using 'Find', or highlight all matching cells at once using 'Find All'. By zooming out, you can see all the highlighted cells. By default, Open Office Calc searches the current sheet. To search through all sheets of the document, click Edit (top bar), Find and Replace, More Options, then select 'Search in all sheets' option. To search in selected columns or rows, highlight the column(s) in which you wish to search (e.g. by material), do 'edit', 'find and replace', select option 'find all' with your search term after making sure that box 'current selection only' (under 'more options' is ticked – all cells with the term are highlighted. All columns of the sheets are searchable but searching by date may be a problem, as long chronological periods are often covered and a dash is used (this is something that the current author may improve in the future). However, one can search by name of item, catalogue number, excavation number, museum number, context type, etc. The reader may also wish to search for specific typical characteristics of items (e.g. items labelled with the keyword lxii
'Minoan Genius' or 'seals'. When searching, please use the singular form or of words ('bird' instead of 'birds') as the key often provides the word in singular number. Notice that a dot is placed on the first 60 entries of 'Phillips (Crete)'. This is done as searching for P50 would occasionally take the reader to entry P501, P102, etc, but searching for P50. (with a dot) would provide the right entry straight away.

*Searching the microsoft file (.xls)*

Searching as above (.ods file). The only difference is: Search: 1) control +F. 2) options, 3) select (choose sheet or workbook). Sheet searches the sheet that is currently open, whereas workbook searches all sheets. Boxes with the search term are highlighted.

**ADVANTAGES OF USING A SPREADSHEET FOR THE PRESENTATION OF THE DATA**

Searchability is the most important advantage of using the spreadsheet as a platform for the data. Moreover, the data can be 'fed' into other file formats, such as databases (e.g. Open Office Base) or even published on the internet as a fully searchable file. A searchable spreadsheet also allows for fresh conclusions to be raised, e.g. the creation of charts with percentages of Aegyptiaca from Crete that were reworked.

**DISADVANTAGES OF USING A SPREADSHEET FOR THE PRESENTATION OF THE DATA**

The main disadvantage of using Open Office Calc or any similar program (including Microsoft Excel) is the fact that images of artefacts are not displayed on the database. It
is possible to paste an image on a sheet, but images cannot be 'locked' or 'wrapped' in a cell. They 'anchor' all over the sheet surface, therefore it is difficult linking them with particular items in specific rows and cells. The attempt to use hyperlinks to particular images on the spreadsheet or another file, was also not fruitful, as the hyper-links linked to the whole sheet or file, and not to individual images. Moreover, if the files were copied (e.g. from the author's laptop to a CD), the hyperlinks would not function. Placing images in comment boxes was also not an option as it reduces their quality and size. The problem was solved by simply referencing the publications where the reader can go and see a good quality image of an artefact.

**FUTURE PROSPECTS**

The author estimates that the database contains 80% of the catalogue of Phillips (2008), but only selective artefacts from other catalogues are included (for the criteria of selection see the introduction of the thesis and 'chapter 4 'Material culture: selection criteria'). The author has plans to improve the searchability function and complete the database of Phillips 2008 (i.e. include all artefacts in volume 2 which is the most recent catalogue of Aegyptiaca) and possibly share it with her colleagues in the future, after discussing the matter and any copyright issues with Phillips. The artefacts from other catalogues (from Karetsou et al. 2000, Cline 1994 etc.) are offered as examples, because they are discussed in the thesis. In general, the Aegean is better represented than Egypt, as far as the artefacts are concerned, but imputing the data of entire catalogues was not possible, as this was done manually, artefact by artefact, and is very time consuming. The texts are only a basic list of written sources; yet they assist the reader who is not familiar with (or is not interested in linguistics) to understand the nature of Aegean – Egyptian interactions. The sheets of the 'Avaris frescoes' and 'Aegean processional scenes – Thebes' offer a bite-size searchable database of other publications that might be appropriate for a reader who is interested in an overview, but does not wish to expand his/her knowledge on the subject.
PROGRAM SPECIFICATIONS

This spreadsheet was created with 'Open Office Calc' and is copyrighted. No copying or distribution is allowed without the author's written permission. As an open office document, it can be read by most operating systems. The author can provide alternative software formats of this database upon request.
...but my spirit urged me on to sail to Egypt with my godlike friends as soon as I could fit out ships with care. I fitted out nine ships. The crews were quick to gather. For six days they banqueted: I did not stint; I offered many beasts for sacrifices to the gods and feasts. And on the seventh day we went aboard and sailed away from spacious Crete; as if downstream we ran at ease, a fine north wind behind us. All our ships sped on, intact; and none of us fell sick. All safe we sat; the wind and helmsmen kept our fleet on track. In five days' time we reached the river Nile's majestic waters; in that flow I moored my agile ships...'

I. Preface

From prehistory to modern times, Hellenic - Egyptian relations have always been particularly intimate at a social, political and economic level. Cultural similarities between Greece and Egypt have often been considerable in many aspects of life. Moreover, cultural transition has been accompanied by population exchange. Until the mid-twentieth century, the Greek community in Egypt numbered 120,000 individuals. Figures have dropped dramatically in recent years, and currently this community numbers about 2,000. Besides, at present there are about 40,000 Egyptians living in Greece, to seek a better future.

Motivated by current amicable Hellenic - Egyptian relations, the author decided to study the historical background of exchange between the two countries. While at school, she was fascinated by the Homeric references to the Egyptians and by Herodotus' 'Historiae' second book, 'Ἰστοριῶν Εὐτέρπη', which was 'An account of Egypt'. Her enthusiasm over Aegean - Egyptian (or, rather, Hellenic - Egyptian) interactions intensified in her undergraduate years, when, for her dissertation, she chose to examine the Greek colony of Naucratis in Egypt. Naucratis, founded in the seventh century BC,

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1 “Και τραγουδώ την Αίγυπτο, γιατί με τρέφει και με σκέπει σα μητέρα, γιατί πονάει σα μητέρα, και γιατί ελπίζει σα μητέρα”: Stratis Tsirkas, in the poem 'Τραγουδώ την Αίγυπτο' (song of Egypt). English translation: ‘...and I sing of Egypt, because it nourishes and wraps me like a mother, because it hurts like a mother and hopes like a mother’. The Greek in origin author and poet Stratis Tsirkas was born in Egypt in 1911, and loved Egypt passionately.
2 Gialourakis 2006
3 Personal communication with the Egyptian embassy in Athens, 19 February 2011.
is archaeologically confirmed to be a crossroads of Egyptian and Aegean elements. Nevertheless, this study looks even further back in time, since Aegean - Egyptian relations date from the Third Millennium BC onwards, if not earlier. Thus, this thesis follows a transcultural path and provides an up-to-date profile of Aegean - Egyptian interactions in the second Millennium, and, in particular, the period from c 1900 to 1400 BC.

Passion for archaeology was the main reason that motivated the author to produce this thesis. For the purposes of this study, the author visited Greek and Egyptian archaeological sites and a number of museums, where she had the opportunity to see the finds on display, and even handle a limited number of artefacts. Yet, when this work was first submitted for examination, the subject of Aegean - Egyptian relations was, archaeologically-speaking, already 'well-researched'. The need to introduce some novelty to the topic encouraged the author to combine ancient history and archaeology with her interest in the mechanisms of international diplomacy incorporating sociology, economics and mathematics. This is how World Systems Theory and eventually Game Theory were incorporated into this work.

4 See Leonard 1977; Leonard and Coulson 1979; 1982
5 These museums include the National Archaeology Museum of Athens, Chania Museum, Herakleion Museum, Hagios Nikolaos Museum, Cairo Museum, Luxor Museum, the British Museum.
6 Since 2006, the author has been visiting Egypt regularly and certainly feels 'at home' when there. She has also paid several visits to Crete.
7 July 2011
II. How this thesis works

The main body of the thesis (Volume One) often refers to material in Volume Two and on the compact disk (appendices). Occasionally, the text is linked to the 'general terminology' which, along with thesis abbreviations, is provided in Volume Two and for electronic access, also on the CD. The following system of references is used throughout:

Ancient written sources: {text number}.

Artefacts: [author's / editor's initial + catalogue number].

General terminology: [§ term].

Cross-references to maps and tables: (map + number), (table + number).

8 The material on the CD (particularly the spreadsheet) is for reference purposes only. A thorough iconographic and archaeological examination of the artefacts, texts and wall-paintings is not provided, but the main points are summarised and further references are provided. However, certain parts on the spreadsheet and the Annex do include the personal views of the author (see the Annex and the manual of the Spreadsheet for details).

9 With respect to citations the work of other researchers, the following applies throughout the thesis: if page numbers are not given in citations (e.g. 'Moeller and Marouard 2011' instead of Moeller and Marouard 2011: p. 89) the author refers to the whole document (often cited as 'passim').

10 For the finds, the author primarily uses the catalogue numbers provided in major publications. All catalogue numbers presented in the following format are included in the appendices: i) P + Phillips' catalogue number corresponds to Phillips 2008. ii) K + Karetsou et al. catalogue number corresponds to Karetsou et al. 2000; iii) C + Cline's catalogue number corresponds to Cline 1994, iv) W + excavation number corresponds to Warren 2006; KM + excavation number or museum catalogue number corresponds to Kemp and Merrillees 1980; v) M + number given by the author corresponds to miscellaneous. If the full reference of an item is provided instead of a shortened version (e.g. Cline 2014: 148, [132] instead of [C132]), then the item is not included on the spreadsheet. For further details, see the manual of the spreadsheet.
III. **Synopsis**

*Volume One*

- The introduction addresses practical issues and presents the focus, objective, methodology and research questions of this work.

- In Chapter One, Egypt and the Aegean are seen in space and time. Some factors that make Aegean - Egyptian chronological links 'unsafe' are critically reviewed.

- Chapter Two sets the 'theoretical foundations' of World Systems Theory and Game Theory, and describes the models of ancient economy, politics and diplomatic networking, drawing examples from Egypt, the Aegean and the Eastern Mediterranean as a whole.

- Chapter Three provides an historical overview of the interrelations and connectivity between the Aegean and Egypt, with Game Theory and World Systems Theory in mind.

- Chapter Four tracks the evidence: texts and archaeological finds illustrating the nature and mechanisms of Aegean - Egyptian relations.

- Chapters Five and Six discuss the Aegean presence in Avaris through the Avaris frescoes and the Aegean processional scenes in the tombs of the nobles at Thebes. These case studies further highlight some of the protagonists of Aegean
- Egyptian interactions.

• Chapter Seven links together all topics discussed in previous chapters and addresses certain disputed issues individually (e.g. possible Aegean 'settlement' in Egypt).

• The research questions (presented in the Introduction) are answered in the Conclusions.

Volume Two

Volume Two includes the following in print:

• A copy of the preliminaries in print

• The terminology of the thesis

• The annex of finds

• The extended abstract

• Tables and maps

Compact Disc

This includes:

• a searchable spreadsheet with a list of artefacts

11 for convenience, the same document is also given in Volume One and on the CD.

12 Some of these artefacts were handled (or, at least, seen on display) by the author, but not all. For the ones that have not been examined, the author had to rely on previous scholarship. By handling the
• a list of written sources,
• and further details about the Avaris frescoes and the Aegean processional scenes in Thebes;
• the 'Annex' of the evidence (electronic, searchable file of the printed material),
• tables and maps (electronic, searchable file of the printed material)
• coloured pictures
• extras: an electronic copy of the bibliography, extended abstract, etc.13

IV. Some clarifications on terminology

1. Theoretical approach

Regarding theoretical terminology, World Systems Theory - occasionally stated as World Systems (WS) approach - and Game Theory are abbreviated to WST and GT respectively. 'Cultural Multilevel Selection' is often stated as CMLS.14

finds and comparing them to their description in previously-published catalogues, the author was ready to express her own view about their traits, and evaluate how close or distant these items were to their comparanda. She also photographed some items that were inadequately photographed in the past, and photographically updated the post-conservation and post-restoration progress of items such as Khyan's lid (pictures 40-41). Since archaeologists keep unearthing new material, updating the catalogue of artefacts once every five to ten years is essential.

13 An electronic copy of the bibliography is also included, as the author encourages the readers to copy-paste these resources to their own work.
14 See chapter Two for the terms.
2. Space

The Eastern Mediterranean is abbreviated as EM. Apart from the term 'Cretan - Egyptian (C-E) interrelations', occasionally 'Aegean - Egyptian' (A-E) interrelations' are also used. The second term is considered by the author to be more comprehensive compared to the first one. When used, it includes both Crete and the list of Aegean locations mentioned above (i.e. Thera, Keos, Melos, the Kythera, etc.), usually excluding the Greek Mainland, the Peloponnesse and Asia Minor, unless otherwise specified. The term 'Minoan' is associated with Crete itself, and particularly Crete before the presence of Mycenaean elements on the island (table 10); otherwise, 'Mycenaean Crete' is used. Nevertheless, Cretans were beyond Crete. Therefore, the Minoan civilisation, and Minoan cultural influence in general, affected a wide geographical area, from the Cyclades to Cyprus, and from Canaan to Egypt. The term Cretan - Egyptian (C-E) interconnections is generic; it specifies that it is Crete and Egypt the author is writing about, either before or after the fall of the palaces.

15 The abbreviation corresponds to ancient Eastern Mediterranean relations.
16 A list of abbreviations used in this thesis is provided in the preliminaries (a searchable copy can be found on the CD). Note that 'Minoan - Egyptian' and 'Mycenaean - Egyptian' are not abbreviated, to avoid confusion.
17 Note also that A-E is an 'umbrella term' to cover the Aegean and Egypt in general, as geographical regions.
18 Even so, once the Mycenaens settled on the island the Minoan civilisation did not end and therefore, one can still refer to it as 'Minoan'. After all, the chronology is based on the term 'Minoan'. A detail needs to be specified here: some scholars argue that the Mycenaean period on Crete started straight after LM I. Others are uncertain about what happened on Crete between LM II and LM IIIA2 early, and argue that the Mycenaean period on Crete started after the LM IIIA2 destruction of the palace of Knossos and therefore they use the term 'intermediate' period (e.g. Niemeier 1984) (table 10).
19 The reader may notice that the term C-E relations is preferred, rather than Minoan - Egyptian relations. The first term appears clearer to the author as it is purely geographical: it has to do with Crete and its inhabitants, no matter what their ethnic identity (Minoans / Mycenaens) and / or the
Similarly, when necessary to specify the links of one of the islands to Egypt, mention is made of the name of the island; for instance, Theran - Egyptian correlations. When referring to the islands above, excluding Crete, 'the Islanders' may be used. The term 'Minoan - Hyksos' (M-H) or Cretan - Hyksos' (C-H) interrelations is also mentioned. Further clarification follows in the main body of the thesis, when introducing the terms 'Keftiu' and the 'Isles in the Midst of the Sea / the Great Green'.

Likewise, when referring to direct or indirect relations, the thesis investigates both Cretan - Egyptian (C-E) interactions and those between the Archipelago and Egypt. Moreover, the discussion of Avaris (west of modern Tell el-Dab'a in Egypt), demands that the Aegean - Hyksos (A-H) liaison with respect to the citadel, is also briefly considered.

3. Direct and indirect interactions

This is how the author understands the terms:

- Direct: Explicit and forthright (diplomatic, political, economic, cultural, technological, etc.) Aegean ↔ Egyptian interaction without the interference of third parties - third party being another state, institution, people, gateway identity of their rulers.

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20 chapter Four.
21 chapter Five.
community, etc. outside the geographical borders of Egypt and the Aegean.  

- Indirect: Aegean ↔ Egyptian interaction via third parties, e.g. via a foreign state, institution, people, or a diaspora / gateway community (when a diaspora or gateway community can be Aegean, Egyptian, or other).

Direct and indirect relations are discussed in terms of the mechanisms of exchange and the seafaring routes.

4. Terms: Egyptians, Thebans, Hyksos and Minoans / Mycenaeans

Some caution is required when dealing with the history of Egypt 1900-1400 BC and specifically with the Hyksos and the Thebans – especially in the Nile Delta. This is not a case of 'Egyptians ► followed by the Hyksos, and then ► back to the Egyptians'. As the tables demonstrate, firstly, the Hyksos were not an interlude in Egyptian history with the Egyptians going 'back to normal' and back to 'business as usual' (i.e. in Middle Kingdom mode) when the Hyksos were 'expelled' and the eighteenth dynasty was founded over the whole of Egypt. The New Kingdom, mainly in the Delta but also all

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22 [§ diaspora, § gateway].
23 Chapters Three, Four and Conclusions.
24 (tables 28-33, 40b) with further references.
25 Warfare of Ahmose I against the Hyksos was not straightforward. It must have lasted several years, until he captured Memphis. When Avaris was also finally captured, the remaining Hyksos were expelled from Egypt and retreated to Sharuhen, near Gaza. On the destruction of Avaris see Urk. IV, 4: 10; Redford 1992 contra Bietak 2011. Bietak (2011b:23-35) sees some, but not complete destruction in Avaris, and argues that the citadel was not fully abandoned by the Hyksos after the capture of Avaris: a small Hyksos community remained in Avaris in the early eighteenth dynasty.
over Egypt, was 'built upon' societal, cultural, political and economic development that took place in the Second Intermediate Period.\textsuperscript{26} Also, the Hyksos culture did not cease to exist overnight in the Delta.\textsuperscript{27} Additionally, it should be borne in mind that the Hyksos were multiracial Asiatics, albeit highly Egyptianised. The previously-mentioned notions suggest that the mere labelling of the Hyksos as 'different' to the Egyptians is somehow justified (as the Hyksos were non-Egyptians), but also essentially biased (as not only were the Hyksos Egyptianised but they also influenced Egyptian culture). The same applies to the Minoans and Mycenaean on Crete after the hypothetical Mycenaean takeover of the island: Mycenaean culture did not eradicate Minoan culture, and the two cultures co-existed.\textsuperscript{28} Yet, if in this thesis Hyksos and Egyptians, and Minoans and Mycenaean are often examined as separate groups, this is because researchers have often discussed them as such; e.g. on matters of chronology and political negotiations.\textsuperscript{29} Also, in the author's opinion, the differentiation among these terms is occasionally dictated by the need to highlight the exact profile, motives and strategies of GT players.\textsuperscript{30} After all, with respect to administration and the official trajectories of international relations, there were notable differences between Hyksos and Thebans,

\textsuperscript{26} This development occurred across the land of Egypt, from north to south and it was generated by both local and foreign populations: the thirteenth, fourteenth, fifteenth, sixteenth and seventeenth dynasty (see \textbf{tables 28-33, 40b} with further details). In other words, over time, the Egyptians of the Middle Kingdom and the Second Intermediate Period differed significantly to Egyptians of the New Kingdom.

\textsuperscript{27} See also note 25. It is difficult to believe that the Hyksos culture ceased to exist altogether in the Delta after the Hyksos 'expulsion'; even after a possible ethnic cleansing: what about the offspring of Hyksos-Egyptian intermarriages? The Thebans incorporated part of the Hyksos culture into their own culture. To quote Bietak, 'the presence of several ten thousands people of Western Asiatic people in north-eastern Egypt over a period of over 300 years (c.1830–1530 BCE) must have had an impact on the successive New Kingdom culture' (Bietak 2011b: 21).

\textsuperscript{28} \textbf{tables 28, 34, 35, 41b} with further references.

\textsuperscript{29} e.g. Bietak et al. 2007; Marinatos 2011 on the date and the raison d'être of the Avaris frescoes and MacGillivray 2009 discussing A-E alliances and who was politically dealing with whom.

\textsuperscript{30} on Game Theory see chapter Two.
Minoans and Mycenaeans.\textsuperscript{31}

5. Terms: Aegyptiaca, Aegeaca and Minoica / Egyptianising, Aegeanising and Minoanising

In major bibliographical studies the term 'Aegyptiaca' defines genuine Egyptian and Egyptianising finds.\textsuperscript{32} The latter term, in academic scholarship and in this thesis, incorporates a variety of items, ranging from replicas and imitations of Egyptian finds, to items that are very distantly connected to Egypt (for instance, because of their technology, style or ideological background). Similarly, the author of this thesis uses the terms 'Aegeaca' and 'Minoica' in order to describe both original and Aegeanising / Minoanising objects. Still, when the purely Aegean / Minoan origin and identity cannot be confirmed, the terms 'Aegeanising' or 'Minoanising' can be used instead.

Nonetheless, the author sees various degrees of Aegeanisation or Minoanisation when discussing Aegeanising or Minoanising objects. Although, in theory, originals and imitations can be easily distinguished because of the items' individual traits, some of these items are remarkably similar to Aegean / Minoan archaeological finds, to the point that telling them apart would not be easy. Indeed, the degree of similarity of these '-ising' items to original objects from Crete and the Aegean can vary extensively. The

\textsuperscript{31} (tables 28-41b).
\textsuperscript{32} e.g. in Phillips 2008.
extreme of the '-ising' group is Aegeanising and Minoanising items with very distant connections to actual, genuine Aegean and Minoan finds (for instance, a distant connection in symbolism, or a typical Minoan item made from Egyptian material). To conclude, in many cases, whether and how Aegeanising and Minoanising an item is, becomes a matter of personal interpretation.

For instance, take the 'so-called Minoanising', or 'Aegeanising frescoes' outside the Aegean. There, the beholder sees various grades of Minoan / Aegean influence and style, and in truth, the aim is to investigate how Minoan or Aegean these frescoes are. Because of the cornucopia of ideas with regard to how, and by whom, these frescoes were painted; and the various degrees of stylistic and technological similarities to genuine Aegean / Minoan comparanda; it is obvious that the degree of Aegeanisation / Minoanisation of these frescoes is diverse and not unanimously defined. Naturally, the term 'Aegean' / 'Minoan' to describe some of these frescoes (e.g. the frescoes at Tell el-Dab'a) raises ground for debate; yet, the terms 'Aegeanising' and 'Minoanising' are equally versatile and inconsistent in research. Therefore, the only way to avoid misunderstandings when using these terms is simply by listing the exact traits and reasons that allow researchers to call them 'Aegean / Minoan' or 'Aegeanising' / 'Minoanising'.

Another example is the frescoes from Malqata. How close to Aegean prototypes are

33 see chapter Six: 'Aegean and Aegeanising frescoes outside the Aegean'.
34 Yoshimura 1995
these frescoes? Kemp has insisted in calling them 'Aegeanising' or 'Minoanising',\textsuperscript{35} e.g. because of the patterns of the rosettes in combination with the bucrania.\textsuperscript{36} But is a list of certain traits enough to call these frescoes 'Aegeanising'? Calling them 'Aegeanising' would only be convenient, but would not please everyone. Therefore, to the author's mind, it is safer labelling the Malqata paintings as frescoes with probable connections to the Aegean and influences from Aegean art.

To conclude, in this thesis, the term 'Aegeanising' is often used for convenience: it signifies artefacts that are not purely Aegean. These items can be compared to Aegean comparanda. They could be made by non-Aegeans but bear Aegean-inspired artistic influences, some Aegean traits, or a certain connection to the Aegean. For every individual case, the author discusses why an artefact is called as such.

\textsuperscript{35} Kemp 2000, in Karetsou et al. 2000b.
\textsuperscript{36} The connection of these frescoes with the Aegean is also noticed by e.g. Barber 1991; Duhoux 2003, Bietak 2007c; Barnes 2008. The painting with the bucrania and rosettes is the ceiling painting from the palace of Amenhotep III, Metropolitan Museum of New York 11.215.451.
V. **Objective**

In examining A-E relations, a major objective has been the investigation of what research can gain by applying modern theoretical schemes such as WST and GT, in addition to traditional approaches, with the aim of understanding:

- the mechanisms of trade, exchange and diplomatic relations between the Aegean and Egypt.\(^{37}\)
- the incentives and nature of A-E relations and the role that the palaces and extra-palatial individuals played in them.
- The continuity, persistent patterns and raison d'être of A-E relations.
- and in general, the operation of EM networking.

VI. **Limitations**

This report is transcultural and interdisciplinary. Since the thesis topic is an object of study for both Aegeanists and Egyptologists, the intention is to avoid either an Aegeocentric or Egyptocentric approach. Therefore, A-E relations are examined from both points of view as objectively as possible.

However, because of space restrictions, the following limitations apply:

\(^{37}\) 'Trade' is occasionally used for convenience. The term 'trade' is used in this thesis to describe the exchange process and it is not related to any activity involving money. Trade in the Bronze Age Mediterranean was reciprocal and it was based on the exchange of goods or services.
First, a geographical limit has been set. The Greek Mainland, along with the Peloponnese, is only briefly 'touched upon'. This is because this thesis examines a particular geographical area of the Aegean Archipelago: Crete, Thera, Melos, Keos, the Kythera, Aigina and briefly, the island of Rhodes, and how these places interacted with Lower and Upper Egypt. Special emphasis is however placed on Crete.

The second restriction is a chronological one. Even today, the precise nature of A-E chronological links is still problematic. In calendar years, this thesis examines evidence which dates from c 1900 to c 1400 BC. This is, to say, the era in Crete between the mature Pre-palatial Period and the very beginning of the Final Palatial Period. When 'earlier' material is discussed (and - in particular - artefacts from the Third Millennium BC) it will be for the purposes of enlightening the evidence only; or, because these earlier examples can assist the reader to comprehend the motives and mechanisms of A-E liaison and how these have evolved over the course of time. Moreover, some of these earlier artefacts need to be examined since they are heirlooms in their archaeological context; even so, their study is relevant to this thesis since their archaeological context.

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38 When, for example, the Mycenaean civilisation is considered, this will be seen under the Cretan geographical limits and only for comparative purposes.
39 For the debate on A-E chronology see the following discussion in chapter One: 'Chronological considerations'.
40 See chapter One for chronology.
41 [§ antiques].
context dates within the chronological frame of this research. Examples from later contexts are also included, under similar reasoning; e.g. artefacts dating to Amenhotep III. However, as this thesis mainly targets the years between mid twelfth dynasty and the reign of Thutmose IV in the eighteenth dynasty, references to artefacts and textual material dating to Amenhotep III are only occasional.

- Restrictions also apply to the context of this thesis. Regions such as Cyprus, Byblos, Kabri and other EM mercantile stations, and the involvement of the Asiatics in the A-E liaison, will be considered but not thoroughly discussed. Additionally, since this research concentrates on A-E trade, exchange and diplomacy; a detailed iconographic, artistic, architectural, linguistic, mythological and cultural study of inter-influences between the two regions will be strictly limited.

42 See also (tables 36-39).
VII. Methodology and research questions

To meet the objective, the author comparatively applied the WST and GT to the same data sets:

• items exchanged between the Aegean and Egypt,

• the Avaris frescoes,

• and the Aegean processional scenes in Thebes,

with the purpose of addressing the following research questions:

• How secure are Aegean - Egyptian chronological interlinkages?

• What were the mechanisms of cultural transition, networking, trade and exchange between the Aegean and Egypt?

• What mechanisms of economic relationship operated in Aegean - Egyptian transactions? What reasons made Aegeans and Egyptians interact with each other?

• Were there Aegeans settled permanently in Egypt and Egyptians settled permanently in the Aegean? If there were Aegeans / Minoans in Egypt, why does the archaeological evidence not reveal their presence there? Was there a political, economic, diplomatic or other alliance between the Aegean and Egypt? Does the theory of dynastic marriages and that of the official embassy visits
between the two locations have any validity?

• Can one envisage a Bronze Age Egyptomania in the Aegean? Or, even, an Egyptian Aegeomania? What do archaeological finds and texts suggest?

• Who 'pulled the strings' in Aegean - Egyptian relations? The palaces and institutions? Or extra-institutional individuals?

• Between c 1900-1400 BC, were Aegean - Egyptian relations direct or indirect?

• In a world system of core-periphery interactions, what role did the Aegean and Egypt play? Who was in the orbit of whom?

• What were the mutual benefits of contact, and the factors that promoted mutual stability in the Eastern Mediterranean?

• What has been gained by using Game Theory and Cultural Multilevel Selection in the field of Aegean - Egyptian relations?

These questions will be answered in the Conclusions of this thesis.

VIII. Previous Scholarship

Research on A-E relations has been undertaken by numerous researchers. Nevertheless, due to lack of space, only a few studies will be mentioned here, with further citations provided in the following chapters of the thesis.

Pendlebury's Aegyptiaca (1930) was a catalogue of Egyptian artefacts discovered on
Mainland Greece, Crete and the Aegean Islands. Despite being quite concise in format, and in perpetual need of updating and re-evaluation of its material, this significant pioneering work inspired generations of researchers.

It was in the early sixties that Gerald Cadogan compiled a catalogue of Egyptian artefacts found at Knossos. However, his thesis on Cretan foreign relations was never finished. An academic study of specific artefacts - Peter Warren's thesis on Minoan stone vessels - was published in 1969. In this work, Warren examined imported Egyptian vessels on Crete, along with Minoan vessels produced on the island.

Merrillees and Winter (1972) produced a study of Minoan and Mycenaean pottery discovered in Egypt and exhibited at the Brooklyn Museum. It was Brown who first attempted to update Pendlebury's catalogue in his Ph.D thesis, submitted in 1975. His unpublished work, which examined Bronze Age and Geometric / Archaic Egyptian and Egyptianising artefacts found on Greek sites, firmly excluded Crete and Rhodes.


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43 The catalogue examined items dating to dynasty twenty-six and earlier.
44 Before Pendlebury the topic was studied by Evans (1921-35) and Matz (1928). After Pendlebury's catalogue, major works on the topic were those of Kantor (1947), Furumark (1950), Groenewegen-Frankfort (1951), Vercoutter (1956), Stevenson-Smith (1965), Helck (1979), Ward (1971), etc.
later published her major work of 'Aegyptiaca in the Island of Crete', which was circulated at the end of 2008. Lambrou-Phillipson's thesis, on Aegyptiaca and Orientalia from Crete, was submitted in 1987 and published in 1990; Perikles Kourachanes, staff Egyptologist at the National Archaeological Museum of Athens, never managed to finish his very promising catalogue of Aegyptiaca from Greece.\textsuperscript{45} Cline submitted his thesis in 1991, to re-assess international trade in Bronze Age Aegean and published a complete catalogue of all known Aegyptiaca and Orientalia from Greece in 1994.\textsuperscript{46} His work has been a step further in the study of Aegean relations abroad.

Lilyquist (1996) studied Egyptian stone vessels abroad, categorising them as Egyptian, Egyptianising or non Egyptian.\textsuperscript{47} Soon after, Quirke and Fitton (1997) discussed differences between imported and indigenous scarabs in the Aegean. Scarabs were also debated by Pini (2000), who differentiated between Egyptian and Minoan material. The doctoral thesis of Judas (2010), on Aegean ceramics in Egypt, is still unpublished.

The temporary exhibition titled 'Crete - Egypt: 3 Millennia of Cultural Interactions', inaugurated in November 1999 at Herakleion Archaeological Museum on Crete, included 727 Aegyptiaca from Greek and international museum collections (the British Museum, the Louvre, the Metropolitan Museum of New York, etc.).\textsuperscript{48} The exhibition catalogue was published in 2000 and shortly after was accompanied by a special volume

\textsuperscript{45} Kourachanes passed away in July 1988 when his study was near completion.
\textsuperscript{46} \textsuperscript{\textsection} Aegyptiaca, orientalia. This book was re-circulated in early 2009 with minor changes.
\textsuperscript{47} \textsuperscript{\textsection} Egyptianising.
\textsuperscript{48} The Greek title of this temporary exhibition is Κρήτη-Αίγυπτος. Πολιτισμικοί δεσμοί τριών χιλιετιών.
with papers referring to C-E relations\textsuperscript{49}. Gillis and Sjober's 'Crossing Borders' was published at the end of 2008. It touches upon transcultural relations of both Minoan and Mycenaean worlds.

With regard to other forms of interaction between Egypt and the Aegean, the influence of Aegean art on Egyptian art, iconography and theme, was investigated very early by Hall (1914) and later by Kantor (1947) and Stevenson-Smith (1965). The same topic was also approached by Helck (1983). Artistic influence was re-assessed by Crowley (1989) and later by Leclant (1996) and Vercoutter (1997). Vercoutter had also published, back in 1956, an exceptional work titled 'L'Egypte et le Monde Égéen préhellénique' which first brought into focus the Egyptian textual and pictorial material dating from the seventeenth to the nineteenth dynasty and associated with the Aegeans.

With respect to iconographic studies, major work on Aegean animal iconography and motifs has been undertaken by Rhyne (1970) and Morgan (e.g. 1995, 2004). Weingarten (1991, 2000), various authors in Karetsou (2000a,b) and Phillips (2008) have commented on the transformation of Taweret into the Minoan Genius and general iconographic transition.\textsuperscript{50} Egyptian influences on Minoan architecture and wall painting are discussed in the theses of Maria Shaw (submitted in 1967) and Jarkiewicz (submitted in 1982), both unpublished. The Egyptian tomb representations of the

\textsuperscript{49} The catalogue was published in English in 2000. Only the Greek version is cited in this thesis. These two books are a joint work of numerous researchers, presented in Karetsou et al. 2000a: i. The researchers sign with their initials after the examination of individual finds in the Karetsou catalogue. For the initials of the authors in the catalogue of the Herakleion Museum see the very end of the Bibliography.

\textsuperscript{50} §§ theme, § Genius}.

The discovery of Minoan-style fresco fragments at Tell el-Dab'a, in the early nineties, initiated a new phase of interest in A-E relations. Ägypten und Levante (Ä&L) continues to be the major source of academic information for this site and the Minoan-style murals. Manfred Bietak, the excavator of Avaris, has published much material on the murals. Bietak et al. (2007) has shed new light on A-E relations of the early and mid eighteenth dynasty. Other researchers who have recently examined the frescoes are Morgan (e.g. 2010a,b), Aslanidou (2007; 2012), Marinatos (2010a,b; 2012) and Von Rüden (forthcoming).\(^{51}\)

The various trade routes between the Aegean and Egypt have been examined, among others, by Vercoutter (1954), Schachermeyr (1952-1953), Helck (1983) and Wachsmann (1998). A great number of researchers from both Aegean and Egyptological backgrounds have been engaged in the investigation of chronological links between Egypt and the Aegean in comparison with the chronology of neighbouring regions. Previous scholarship on chronology will be given in more detail in the following pages.\(^{52}\)

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\(^{51}\) Only examples are provided here. See the bibliography for a list of works of these researchers.  
\(^{52}\) See chapter One: esp. 'Chronological Considerations'.

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Lastly, with respect to methodology, Frank (1993), Andrew Sherratt and Susan Sherratt (e.g. 1991, 1998) have contributed significantly to the understanding of the Mediterranean Bronze and Iron Age trade systems and WST.\(^{53}\) No major work has yet exclusively debated A-E interactions (1900 -1400 BC) within this concept.

Moreover, so far, no research has thoroughly ever linked A-E interactions to GT and the Nash equilibrium.\(^{54}\) In fact, GT has been scarcely used in the study of international relations in the ancient world.\(^{55}\) Nonetheless, antiquity has been examined via Conflict and Decision Theory - two concepts related to GT,\(^{56}\) and lately, Knappett has used another alternative methodology, Network Theory, in archaeology and macro-scale transcultural relations, with examples from the Bronze Age Aegean.\(^{57}\) The few publications examining antiquity in GT terms concentrate on Greece and Rome and focus on domestic affairs; for instance, Quillin (2002) on Roman Republican politics and Kaiser (2007) on Classic Athenian democracy and economy. Recently, Brams' publication (2011) has eventually 'bridged' GT with the humanities but has not focused on ancient history, and only provides a few notions about Ancient Egypt, particularly concerning biblical history.\(^{58}\) However, Kemp (2006) has very briefly discussed this

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\(^{53}\) See the relevant bibliographical entries for further publications by these authors.

\(^{54}\) [§ equilibrium]. Terms 'Nash equilibrium' and 'equilibrium' are synonymous in this work. See chapter Two.

\(^{55}\) [§ Game Theory, § history of Game Theory]. For GT and modern international relations see the publication of Allan and Schmidt 1994.

\(^{56}\) See e.g. Kohler 2010 for an example discussing Ancient Egypt.

\(^{57}\) Social Network Analysis and Actor-Network Theory have been used by Knappett (2011) (for the terms see Wasserman and Faust 1994 and [§ Network Theory]). These concepts, although noteworthy, will not be discussed in detail in this thesis because of space limitations. The same applies to Decision and Conflict Theory concerning the Bronze Age EM relations. The latest work about Network Theory (Social Network Analysis) in archaeology is Knappett 2013.

\(^{58}\) Brams 2011: 42, 50, 89, 120.
theory as a way of understanding Ancient Egyptian state formation.\footnote{Kemp 2006: 32, 34, 35.} Lastly, an attempt has been made by Kantner (2003) to incorporate the biological, Evolutionary (Game) Theory to the field of archaeology (or, rather, anthropology) from the view of adaptionism, selectionism and human behavioural ecology, but otherwise, the application of GT is pioneering in archaeology.

IX. **Originality**

This thesis is the first ever attempt to apply both GT and the WST to A-E relations and test the validity of GT in archaeology in an extensive work. It is hoped that this work will encourage future researchers to follow a similar path. Specifically, the author:

- provides a searchable and easy-to-use excel document cataloguing ~80% of the Aegyptiaca discovered on Crete on the basis of Phillips 2008, with some additional recent finds. This database is currently a unique resource.\footnote{Material from other catalogues is also included. See the spreadsheet on the CD for details.}
- re-discusses A-E interactions macro-politically and macro-economically, via the WS approach, while she introduces, for the first time ever in this context, GT as a study-tool of early Mediterranean history (also applicable to later periods).
- focuses, via the GT model, on the human factor: the role of individuals in A-E interactions (and not solely the roles of the state and the nation as a whole, favoured by WST) while also discussing the mechanisms and nature of A-E
• advances the understanding of A-E relations, in particular due to the innovative searchable database resource and application of GT in the field.

• provides a taster of the newly-established CMLS with respect to EM relations, and examines the future potential of this model in the field of Greek - Egyptian relations.61

• critically evaluates earlier and current literature while placing personal perspectives into crucial debates in A-E relations.

• studies the comparisons for crucial key evidence in A-E relations, such as the Avaris frescoes and the Aegean processional scenes.

• debates controversial issues such as the possible Aegean colonialism to Egypt, the theory of a A-E dynastic marriage and the Aegean ethnic identity in foreign lands.

• on the basis of her personal observation, highlights the difficulties in grouping Aegyptiaca in the Aegean and Aegeaca in Egypt, and re-groups archaeological finds after taking into account their individual traits and archaeological context.62

• When appropriate, expresses personal views about the significance of artefacts, especially those that she has handled herself.

• explores the level of 'Egyptomania' in the Bronze Age Aegean and the EM as a whole.

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61 Chapter Two.
62 Annex of finds (appendices)
CHAPTER ONE

EGYPT AND THE AEGEAN: NATURAL GEOGRAPHY AND CHRONOLOGY

'Βουλεύου χρόνω'
'Give a timely counsel'
Delphic Maxim

1.1 Natural geography

A detailed description of the natural geography of the Aegean, Egypt, and, in general, the EM, is not feasible. Only basic information is provided here. The reader will find it useful to consult the maps in the appendices.

The Mediterranean Sea is enclosed by land: on the north by Anatolia and Europe, on the south by Africa, and on the east by the Levant. Nowadays, the EM includes Syria, Lebanon, Palestine, Israel, Jordan and Cyprus. Bronze Age Mediterranean cultures interacted between each other and exchanged information, technology, culture and

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63 This is done because geography assists in the investigation of maritime routes (chapter Three).
64 (maps I-V).
65 The following description of natural geography is based on the observation of modern maps of Greece, Egypt and the Eastern Mediterranean. See also the recent publication of Adams 2007.
knowledge.66

The Aegean basin, with the numerous islands of the Archipelago, is surrounded by a mainland of mountain ranges, plains, plateaus and coasts.67 It is situated between the Balkan and the Anatolian peninsula and it is connected to the Sea of Marmara and the Black Sea by the Dardanelles and the Bosphorus. Kythera, Antikythera, Crete, Kasos, Karpathos and Rhodes are located on the southern borders of the Aegean. Kythera will be acknowledged later in this study. Kythera and Antikythera are located opposite the eastern tip of the Peloponnese. Aigina, also mentioned in the proceeding chapters of this thesis, belongs to the group of Islands of the Saronic Gulf, which defines the Eastern part of the modern isthmus of Corinth.

The Cyclades, among which is Thera, or Santorini, are situated in the centre of the Aegean Sea.68 This group of islands is the cradle of the so-called Cycladic civilisation which flourished in the Early Bronze Age.69 Later the Cyclades were absorbed in the Minoan and Mycenaean cultural orbit.70 Thera is of particular interest to this study. This is because the analysis of pumice from the volcanic eruption which occurred in this island is a key-point of understanding of the problematic EM chronology.71 The effects

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66 For recent work in cultural interactions in Europe and the EM see Wyszomirska-Werbart 2001 and Duistermaat and Regulski 2011.
67 [§ Archipelago].
68 [§ Cyclades].
69 For the Cycladic civilisation see Yeroulanou and Stamatopoulou 2004.
70 See (tables 28, 34-36).
71 (table 2).
of this eruption are seen in the peculiar shape of this island. The eruption left a large caldera surrounded by volcanic ash deposits hundreds of feet deep.\(^\text{72}\)

The mountainous island of Crete, which is the focus of attention in this thesis, is the largest of the Greek Islands and the cradle of Minoan civilisation. The Aegean stands to the north, to the south the Libyan Sea; to the west the Myrtoan Sea, and to the east the Carpathian Sea.\(^\text{73}\)

Egypt is a vast country, world-known for its history and archaeology. Since antiquity, due to the aridity of Egypt's climate, population centres have been concentrated along the narrow Nile Valley and Delta.\(^\text{74}\) The valley skirting the Nile river is the source of maintenance and evolution of Egyptian life and history. The Nile with its annual inundation; which was so precious for the Ancient Egyptians - to the point that it was deified by them; is navigable and connects the African north with the heart of the continent, facilitating the transition of commodities and culture.\(^\text{75}\) In effect, the Nile valley has always formed a natural geographic and economic unit, bounded to the east and west by deserts, to the north by the sea, and to the south by the Cataracts. The need

\(^{72}\) For the Thera eruption see chapter One: 'Chronological considerations' and 'Analysis'. A relatively recent book discussing the geography, geology, natural history and mythology of Thera, along with the volcanic eruption, is Friedrich 2009. For the geography and geology of Thera see Friedrich 2009: 7-73. For the effects of the Thera eruption see ibid 80-97; Friedrich and Sigalas 2009: 91-100; Friedrich and Heinemeier 2009: 57-63 (effects, date and stages of the eruption). For the effects on the north-east coast of Crete (Papadiokambos) see Brogan and Sofianou 2009: 117-124. The decline, or not, of the Minoan palace system due to the Thera eruption is briefly discussed in (table 28).

\(^{73}\) For the geography, landscape and chronology of Crete see Fitton 2002.

\(^{74}\) See Hendrickx and Vermeersk 2003

\(^{75}\) (picture 175). Much has been written about the deification of the Nile. See, for example, the god's name 'Hapi' in Hart 1986: 57 or Wilkinson 2003: 105-108 and Wb 3, 43.5-12.
of a single authority to manage the waters of the Nile led to the unification of Upper and Lower Egypt under the sceptre of a single ruler, around 3,000 BC.\textsuperscript{76} The extraordinary development of the Egyptian civilisation can be explained by the fact that Egypt's peculiar geography and climate made it a country against which it was difficult and inconvenient to attack. As a result, Pharaonic Egypt was a geographically self-contained state, with the exception of the Hyksos Period.\textsuperscript{77}

\subsection{1.2 Chronological considerations}

The issue of time has always been among the major topics occupying the minds of both Aegeanists and Egyptologists.\textsuperscript{78} Presently, relative and absolute Aegean and Egyptian chronologies are still under debate. Numerous chronological schemes have been suggested by researchers for the dating of the Aegean and Egyptian past and as a result, Aegean - Egyptian chronological links are rather problematic.\textsuperscript{79} The climate of uncertainty in Aegean and Egyptian chronology and A-E chronological interlinkages perplexes the chronological schemes of other EM and Anatolian cultures.\textsuperscript{80} This is because the reconstruction of chronology of the Late Bronze Age in the Mediterranean depends on the absolute chronology of the LM I-II periods and the absolute dating of

\begin{thebibliography}{99}

\bibitem{76} [§ Upper and Lower Egypt]. Bard 2003
\bibitem{77} Bourriau 2003, (tables 28-33, 40).
\bibitem{78} The author wishes to thank Sturt Manning, Robert Porter, Malcolm Wiener, David Aston, and Felix Höflmayer, for their valuable advice on chronology (via EEF and personal communication in March 2010).
\bibitem{79} Some suggested chronological schemes are seen in (tables 1, 4-10, 13-20). For the latest news about the issue see this chapter 'An update in Chronology', with further references.
\bibitem{80} (tables 1, 2)
\end{thebibliography}
the Thera eruption, as associated with the Egyptian, Cypriot and other Near Eastern relative chronologies.81

1.2.1 Aegean and Egyptian chronology based on non-radiometric methods

1.2.1a Egyptian chronology

Researchers of Egyptian chronology82 distinguish between 'relative' and 'absolute' dating. Non-radiometric relative Egyptian chronology is based on the following systems:83

a) 'Dead-reckoning', i.e. the establishment of a minimum number of years for each Egyptian ruler on the basis of counting regnal years, the reference of which is documented in Ancient Egyptian written sources.84

b) Manetho's history; the so-called king-lists, such as the Ramesside Turin Canon; and textual and artistic sources (e.g. reliefs, stelae, etc.) which refer to major historical events.85

81 See the following pages for the Thera eruption. In this work the author will only discuss the Egyptian and Aegean chronological considerations, setting aside the various chronological schemes suggested for other EM civilisations.
82 Egyptian chronology corresponds to (tables 1-8, 13-18).
83 See Krauss and Warburton 2009. Relative Egyptian chronology is also based on radiocarbon. This will be discussed in the following pages. For generic aspects of Egyptian chronology see Shaw 2003a: 14; Kitchen 1991: 203; Beckerath 1997 and Hornung et al. 2006. For the term 'relative' dating, see Renfrew and Bahn 2000: 571 (glossary) and 118-128.
84 (table 6). See Krauss and Warburton 2009: 125; 126-130. For the application of dead reckoning in Egyptian chronology see Hornung et al. 2006a, 2006b, 2006c.
85 [§ stela]. See Krauss and Warburton 2009: 125, 131. Manetho's history has survived in three versions.
c) The examination of textual and artistic sources that provide genealogical information and demonstrate a link between private families and specific rulers.\(^6\)

d) Synchronisms of Egypt with Mesopotamia, Syria, Anatolia, etc. These are based on the Egyptian royal correspondence with foreign rulers, e.g. Amarna Letters.\(^7\) Other sources are inscriptions from abroad, such as the Assyrian kings-lists and the documents of Mari;\(^8\) also, the cultural / material synchronisms in the second and first millennium BC, as seen through international relations between the Egyptians and their neighbouring countries.\(^9\)

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\(^6\) See Bierbrier 2006: 37-44 with examples of written and artistic sources. For instance, the private tombs of nobles in Thebes demonstrate wall-paintings and inscriptions which manifest that the deceased lived in the reign of specific rulers (table 53).

\(^7\) The Amarna Letters / tablets were the correspondence between Egyptian and foreign administrations. They are always given a special number following EA, for example, EA 08 (King Burnaburiash to Akhenaten complaining about the treatment of his traders). There is plenty of scholarship about this correspondence. See e.g. Moran 1992; also Cohen and Westbrook 2000. For the battle of Kadesh, between the army of Ramesses II and the Hittite Empire under Muwatalli II see Van Dijk 2003: 288-294. For instance, the Amarna Letters (EA 6 to EA 14) manifest that Burna-Burias II corresponded with both Akhenaten and Tutankhamun.


\(^9\) Kitchen 1991: 204; Phillips 2008: 25; Krauss and Warburton 2009: 131. For instance, LH IIIA-B material has been unearthed at Amarna, which links the Amarna Period with LH IIIA-B Greece. Another case study, which, like the previous example, demonstrates both the use of seriation and synchronisms is that of Tell el-Dab'a [§ seriation]. The Egyptian, Canaanite, Cypriot and Cretan material discovered there allows researchers to produce comparative results for the concurrent chronologies of these cultures. See also note 107.
e) Archaeological typology and stratigraphy.\textsuperscript{90}

Egyptian 'absolute' dating is accomplished via the examination of texts which contain calendrical and astronomical records.\textsuperscript{91} Such a text is e.g. the fragmentary Palermo Stone, which is inscribed with royal annals (regnal years) and records of the Nile inundation stretching back into prehistory.\textsuperscript{92}

However, the danger of using inscriptions, artefacts and astronomical observations as a chronological tool relies on a number of factors:\textsuperscript{93}

\begin{enumerate}
\item The regnal years mentioned in various inscriptions (i.e. the years since the accession of a ruler) are sometimes obscure. One reason for this is the occasional use of obscure names and titles for individual leaders.\textsuperscript{94} Moreover, the controversy over the existence or non-existence of co-regencies of rulers, and
\end{enumerate}

\textsuperscript{90} This is so-called 'Cultural Chronology' and is based on sequence dating of material that comes from excavations. For the importance of stratigraphy and typology in archaeology see Renfrew and Bahn 2000. The cultural sequence does not always follow the dynastic sequence and it has been noted from pottery studies that the cultural sequence in Upper Egypt differs remarkably from that of Lower Egypt (see Petrie 1901: 4-12 and Phillips 2008: 25). For the cultural sequence, as seen geographically see Seidmayer 1990. Pottery can ensure a closely-sequenced archaeological record in Egypt for over 3,000 years. Moreover, thermoluminescence dating can be used on pots to produce more accurate results.


\textsuperscript{93} For an analytical discussion of the problems in absolute and relative dating in Ancient Egypt see Murnane 1977 and Redford 1986.

the debate on how co-regencies were reflected in regnal dates in the texts, should also be considered.95

ii) The texts or artefacts that form the basis of Egyptian chronology usually name material that is either too general or mixes myth, ritual and historical events in such a complex way that the verification of the historical / chronological information is not always possible.96

iii) Other historical problems include the unreliability of Manetho’s history as a chronological source, and the chronological insecurity due to the so-called 'dark ages'; also the chronologically controversial Third Intermediate Period.97

iv) Astronomical observations are sometimes chronologically inaccurate as these depend upon the location of the ancient observer, for which sometimes only assumptions can be made nowadays.98 The problem is also related to the heliacal rising of Sothis in relation to the 365 day long Egyptian calendar.99

96 Shaw 2003a: 8. Such material is reliefs, wall-paintings, stelae, private documents, letters, etc. See e.g. the Speos Artemidos inscription in note 171, the Ramesside inscription of Mes (Krauss and Warburton 2009: 129; Hornung 2006: 209), etc. Also the interpretation of Ahmose's stela by Ritner and Moeller (2014, forthcoming), which depends entirely on interpretation.  
99 An explanation: the Egyptians used a year of 365 days whereas the astronomical year has approximately 365¼ days. Rulers dated their second regnal year from New Year's Day (wpt-rnpt), i.e. the first day of the first month of Nile inundation. Due to the leap year, four years after the coincidence of the beginning of the astronomical year with the beginning of the wpt-rnpt of the civil calendar, one day would be 'missed out', to the point that, in about 120 years, the civil year would be a whole month in advance of the astronomical year (Gardiner 1957: 204, Belmonte 2009: 80). For further details on the problem, see Kitchen 1991: 205 and especially Parker 1950: 182. Also, Krauss
v) Needless to mention, the more back in time, the less 'secure' are the chronological data, for obvious reasons.

1.2.1b Aegean chronology

Relative and absolute dating\(^{100}\) also applies to Aegean Bronze Age chronology.\(^{101}\)

Stratigraphy, typology and ceramic stylistic development play a primary role in relative Aegean chronology.\(^{102}\) Architectural development is also used for dating purposes.\(^{103}\) In brief, Aegean relative chronology is based on the temporal ordering of artefacts and events relative to each other (e.g. assemblages, stratigraphic sequence, etc.). The main

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\(^{100}\) Aegean chronology corresponds to (tables 1, 2, 9, 10, 14-16, 19, 20).

\(^{101}\) Absolute Aegean chronology is associated with radiocarbon and synchronisms. For the definition of relative and absolute chronology with regard to the Aegean see Manning 2010a (particularly pages 13-18). Manning includes a brief historical introduction on chronological debates, a background of 'relative and absolute dating' and the followers of these two chronological schemes. He discusses the problems and limitations of both techniques and provides the terminology and abbreviations of Bronze Age chronological periods.

\(^{102}\) The traditional relative chronology is the one raising fewer disagreements compared to the others. See Evans 1921-1935 ('PM'), who introduced pottery periodisation. For a definition of stratigraphy and typology see note 90 and Manning 2010a for an overview of these methods in association with various chronological schemes.

\(^{103}\) See Platon 1956, who introduced chronological periodisation based on architectural development of the Minoan palace complexes and Manning 2010a for an overview of these methods in association with various chronological schemes. Architectural changes are distinguished in palatial, domestic and funerary architecture of Crete and the Archipelago.
problem with this particular chronological mechanism is the fact that some types of material culture (e.g. household pottery) stay similar over long periods whereas others change rapidly. Moreover, artefact style does not develop simultaneously in different places.\textsuperscript{104} Other cultural phenomena such as administrative issues, script, etc. demonstrate changes in social organisation, and they can also be used for chronological purposes.\textsuperscript{105} The system of synchronisms is used to establish an absolute chronology for the Aegean, but Aegean chronological synchronisms with foreign cultures are very problematic.\textsuperscript{106} Aegean civilisations, Crete included, have been traditionally compared with Egypt.\textsuperscript{107}

1.2.2 Aegean and Egyptian chronology based on radiometric methods and dendrochronology

1.2.2a Egyptian chronology

Radiometric methods provide some foundation for the relative chronology of Egypt.\textsuperscript{108}

\textsuperscript{104} For example, eastern Crete still used EM III pottery styles whereas - at the same time - central Crete had progressed to MM IA styles. Another example of 'time-lag' is that LMII pottery was exclusive to the Knossos area (Manning 2010a: 13; Phillips 2008: vol. 1: 26). The view of the present writer with regard to the artistic style of Aegean painting is expressed in this chapter: 'Analysis'.
\textsuperscript{105} See Hallager 2010: 149-151; Weingarten 2010. For instance, the typology of seals used in administration, or scripts such as Linear A/B, may indicate a chronological passage from Minoan to Mycenaean Crete.
\textsuperscript{106} See e.g. (table 14). See also the alternative transcultural chronological schemes suggested by Cline and MacGillivray (tables 15, 16). Manning 2010a discusses the system of cultural / material synchronisms for the absolute dating of the Aegean.
\textsuperscript{107} Some examples of A-E cultural / material synchronisms are mentioned in note 89. This is the so-called 'archaeological-historical dating' according to which researchers attempt to link exports or imports of objects or apparent stylistic features or techniques between Egypt and the Aegean, or the Aegean and the Near East.
\textsuperscript{108} The topic corresponds to (tables 4, 5, 7, 13, 15, 18). For instance, according to Krauss and Warburton (2009: 126) and Manning (2006b) radiocarbon applied to archaeological finds associated with specific Egyptian rulers can provide a range of possible radiocarbon years. An example is the radiocarbon dating of organic material from Amarna (Switsur 1984), the short-lived capital of Egypt established by
The use of radiocarbon in Egyptian archaeology has allowed researchers to investigate the reliability of chronological data supplied by the calendrical system. Hand in hand with the radiometric methods, dendrochronology exhibits a significant improvement in terms of accuracy.\textsuperscript{109} Still, when compared to traditional Egyptian chronology, it often generates more questions than answers. It is worth stating that scientific methods of dating are not infallible.\textsuperscript{110}

1.2.2b Aegean chronology

Traditional Aegean chronology\textsuperscript{111} has been repeatedly challenged in the last twenty years, especially through a series of radiocarbon investigations undertaken during the last twenty years.\textsuperscript{112} Other highly sophisticated techniques used for the dating of the Aegean are dendrochronology and pumice sampling.\textsuperscript{113} The results of these techniques are occasionally disputed as being inaccurate.\textsuperscript{114} Absolute chronology, based on synchronisations with Egypt and the results of natural sciences on the date of the Thera

\textsuperscript{109} Kitchen 1991: 204; Shaw 2003a: 2-3, Cichocki 2006. The list of scholarship on radiocarbon dating in Egyptology is extensive but some works will be mentioned in the following pages. The Egyptian Chronology project at Oxford University has investigated the consistency and coherence of the Egyptian historical chronology via radiocarbon analysis. See \url{http://c14.arch.ox.ac.uk/embed.php?File=egypt.html} (last accessed 3 August 2013). The conference 'Radiocarbon Dating and the Egyptian Chronology', 17-18 March 2010, Oxford) addressed the issues of Egyptian chronology.

\textsuperscript{110} See below: 'Major issues in Aegean and Egyptian chronology and Aegean - Egyptian chronological links'.

\textsuperscript{111} The topic corresponds to (\textbf{tables 9, 14-16, 20}).

\textsuperscript{112} See (\textbf{tables 9, 10, 14-16}). The abbreviations of the Aegean chronological system are given in (\textbf{tables 19-20}). Absolute chronology, and the methods of historical-archaeological and science-based chronology are also examined in Manning 2010a: 18-24.

\textsuperscript{113} See note 146 for some scholarships on the matter. Theran pumice sampling will be discussed in the following pages of this chapter.

\textsuperscript{114} See below: 'Major issues in Aegean and Egyptian chronology and Aegean - Egyptian chronological links'.
eruption, is also problematic. Particularly the ceramic periods LM I-II are under vigorous debate.\textsuperscript{115}

1.2.3 Periodisation

1.2.3a Egyptian periodisation

Due to the disagreement of researchers over the relevant and absolute chronologies of Egypt, 'high', 'middle' and 'low' chronological schemes are applied to the dating of historical events.\textsuperscript{116} Nonetheless, with regard to periodisation,\textsuperscript{117} Egyptologists measure time in terms of reigns of rulers, groups of rulers (Dynasties) and groups of dynasties (Kingdoms).\textsuperscript{118} For instance, this work mainly discusses finds that date to the mid Middle Kingdom, the Second Intermediate Period and the very beginning of the New Kingdom (late twelfth to mid eighteenth dynasty). Egyptologists often date archaeological and textual material on the basis of the reign of the ruler to which this material corresponds (e.g. the Annals of Thutmose III).\textsuperscript{119} The Egyptian periodisation that covers the needs of this thesis is provided in \textit{(tables 2-6, 13-19, 50)}.\textsuperscript{120}

\textsuperscript{115} Hallager 2003: 151. See also \textit{(tables 9, 10, 20)} and below: 'Major issues in Aegean and Egyptian chronology and Aegean - Egyptian chronological links'.
\textsuperscript{116} Hornung et al. 2006; Phillips 2008: 21. See \textit{(tables 3-7, 13, 15-17, 25, 17a-d, 18)}.
\textsuperscript{117} The topic corresponds to \textit{(tables 4-6, 13, 14-16, 17a-d, 18, 19, 50)}.
\textsuperscript{118} The system of dynasties was first introduced by Manetho. See note 85. Of course, the generic large-scale periodisation of Stone / Bronze / Iron Age also applies, for both the Aegean and Egypt.
\textsuperscript{119} The Annals of Thutmose (Urk IV.647-756) are associated with the warfare of Thutmose III and contain lists of 'contributions' by dependant or independent countries to the Egyptian court. They will also be discussed in chapter Six. For the Annals see e.g. Bleiberg 1981; Bryan 1991; Redford 2003.
\textsuperscript{120} For an overview of the Egyptian periodisation over time see Krauss and Warburton 2009: 126.
1.2.3b Aegean periodisation

Aegean chronological schemes also range from 'low' to 'high', with numerous variations in between.\(^1\) On Crete, periodisation is based on a) pottery (from Early Minoan to Subminoan), b) palatial periods (from Pre-palatial to Final Palatial), c) administrative issues (e.g. seals, scripts) and effectively the absence or presence of Mycenaean elements on the island (Minoan / Mycenaean Crete).\(^2\) The chronological periodisation of the Archipelago is a) pottery-based (e.g. Cyclades: Early Cycladic to Late Cycladic) and b) culture-based (e.g. Kastri), occasionally borrowing the typology of Crete and the Greek Mainland in academic works (e.g. LM I or LH IIIA2 Trianda on Rhodes).\(^3\) The periodisation applied to the Greek Mainland is also pottery and culture-based (Early Helladic to Submycenaean, e.g. Lefkandi I).\(^4\) The Aegean periodisation that covers the needs of this thesis is provided in (tables 9, 10, 14-16, 19, 20). This periodisation is not problem-free with regard to terminology and time limits. With respect to the Minoan periodisation in palatial periods, there is some disagreement over the terminology and chronological limits. Nowadays, the previously problematic Neo-palatial period is linked with the numerous destructions all over Crete, by the end of LM IB. This is followed by the Monopalatial period (LM II-early LM IIIA2) and the Final Palatial

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\(^1\) 'High' are the schemes introduced by highly-sophisticated dating, such as radiocarbon and dendrochronology. See e.g. Manning 1999; 2005; 2006; 2007; 2009; Manning et al., 2001; 2002a; 2002b; 2003; 2006; Bronk Ramsey et al. 2004; Manning and Bronk Ramsey 2009.

\(^2\) See Manning 2010a with further references, and above: 'Aegean and Egyptian chronology based on non-radiometric methods': Aegean chronology'.

\(^3\) Aegean islands are influenced from Crete and / or the Mainland, therefore, Minoan and Helladic periodisation is occasionally borrowed by these cultures. See Manning 2010a with further references, and Barber, L. N. 2010; Marketou 2010a, 2010b.

\(^4\) See Manning 2010a with further references.
period (LM IIIA2-LM IIIB1). Some scholars, like Rehak and Younger, use the term 'Final Palatial period' but they have incorporated the Monopalatial period into it. Yet, the chronological system based on administration (distinguishing between scripts) is generally considered secure. The transition from Minoan to Mycenaean Crete is also somehow problematic.

1.2.4 Major issues in Aegean and Egyptian chronology and Aegean - Egyptian chronological links (c 1900-1400 BC)

1.2.4a Issues in Egyptian chronology

Egyptian chronology has undergone numerous alterations over the past decades. Historical events from 664 BC onwards are considered accurate ('absolute') according to the modern calendar; however, earlier events are dated according to the individual scholar's interpretation of the evidence ('low' to 'high' schemes and in-betweens).

Historical chronology of the Middle Kingdom demonstrates a disagreement between 'high' and low', with the two scenarios being about 42 years apart. Of major concern

125 Hallager 1988; 2010. Hallager 2010: 149-150 discusses Late Minoan period chronology, which is of major importance for this thesis.
126 e.g. Rehak and Younger 2001. Under general agreement, LM I is associated with the Neo-palatial period. The author's opinion is that these terms need to be very carefully used, since a) the definition of the 'palace' is constantly modified (tables 28, 34) and b) more palatial-like structures keep getting unearthed on Crete.
127 Chronology based on administrative issues distinguishes the following administrative systems: Cretan Hieroglyphic (MM I-III), the Phaistos Disk script (MM II or MM III?), Linear A (MM IB – LM IB) and Linear B (LM II – IIIB, LH IIIA-B) according to Shelmerdine 2008: 11. LM I period is surely Minoan (Linear A is used), according to Hallager 2010: 150-151.
128 (tables 10, 19, 20). For the transition from Minoan to Mycenaean Crete see (tables 28, 35).
129 Bietak and Höflmayer 2007: 14. Radiocarbon cannot confirm whether the 'high' or 'low' scheme is
in this thesis is the absolute chronology of the Second Intermediate Period, the
transition to the New Kingdom and, of course, the linkage of these two eras to Aegean
chronology.¹³⁰ A series of historical events, i.e. the accession of the first ruler of the
eighteenth dynasty, Ahmose I, to the Egyptian throne; along with the conquest of Avaris
and the establishment of the New Kingdom in his year eleven (or year eighteen to
twenty-two according to Kitchen 2000), when examined chronologically, can shed more
light on the relative and absolute chronology of the Late Bronze Age. However, any
optimism about 'chronological security' is limited, as the date of transition from the
Second Intermediate period to the New Kingdom has been a matter of debate due to
discrepancies between historical and scientific dating.¹³¹ Nonetheless, recently, the
radiocarbon results of Bronk Ramsey et al. (2010) have managed to somehow bridge
the differences between the two.¹³² Yet, fluid chronology is inevitable since researchers
still disagree on the regnal length and co-regencies of the rulers associated with these
eras. For instance, disagreements over the transition to the New Kingdom and the dating
of early to mid eighteenth dynasty were expressed during the Oxford 'Radiocarbon
Dating and the Egyptian Chronology' conference, when Bietak stated that the transition
to the New Kingdom occurred c 1550 BC.¹³³ Recently, Ritner and Moeller saw a 1600 /

¹³⁰ (tables 14-16).
¹³¹ (tables 4, 6, 14-16, 17c-d, 18).
¹³² i.e. the scheme of historical chronology of Kitchen 2000.
¹³³ For the Second Intermediate Period in Egypt see Bourriau 2003. For the transition to the New
      Kingdom and the eighteenth dynasty before the Amarna Period see Bryan 2003. The transition to the
      New Kingdom is still a matter of debate among researchers: yet, most researchers agree that this
      happened c 1550 – 1540 BC, ±20 years (for suggested dates see (table 4)). The debate over the dating
      of the eighteenth dynasty consisted as follows: in November 2009 Krauss and Warburton (2009)
      defended the 'Low Chronology' and a 1528 BC date as the beginning of the New Kingdom. In the
      postscript of the same article, Warburton commented on the stratigraphy and typology of Tell el-
      Dab'a. During the Radiocarbon Dating and the Egyptian Chronology symposium (17-18 March 2010)
      this opinion was rejected in the paper of Bietak, delivered by Karin Kopetzk - see Bietak
1580 BC start for this transition.\textsuperscript{134}

Another important event for the needs of this thesis is the accession of Thutmose III to the Egyptian throne, which is also problematic.\textsuperscript{135} Astrochronological data linked to the eighteenth dynasty consist of two lunar observations concerning the reign of Thutmose III (years twenty-three and twenty-four) which fix the possible accession date for this king to 1504 BC, 1479 BC, 1476 BC, or 1454 BC, plus the observation of a heliacal rising during Amenhotep I year nine, which is dated between 1506 BC and 1496 BC.\textsuperscript{136} Krauss and Warburton suggest a May 1468 - November 1415 BC date for the reign of Thutmose III, based on lunar dates.\textsuperscript{137}

The date of Thutmose III's accession was re-investigated by Bronk Ramsey et al. in 2010.\textsuperscript{138} The authors suggested a new chronological scheme for Pharaonic Egypt, on the basis of radiocarbon-tested samples from funerary contexts, taken from items displayed in various museums. These tests manifested that the New Kingdom started between

\textsuperscript{134} Ritner and Moeller 2014. See this chapter: 'An update in chronology' for details.
\textsuperscript{135} (\textit{tables 4-6, 13, 16, 17d, 18}).
\textsuperscript{136} Thutmose III's accession: 1504 BC, 1479 BC, 1476 BC, or 1454 BC is provided in Krauss 2007 and Amenhotep I year nine, dated between 1506 BC and 1496 BC is provided in Krauss 2003. For other suggested dates see (\textit{table 4}).
\textsuperscript{137} (\textit{tables 4, 13}). See Krauss and Warburton 2009: 134.
\textsuperscript{138} (\textit{table 18})
1570 and 1544 BC and placed Thutmose III's accession c 1495 BC.¹³⁹

1.2.4b Issues in Aegean chronology

Overall, most scholars tend to reasonably agree on traditional relative Aegean chronology. However, the chronology of Late Minoan Crete is still disputable.¹⁴⁰ The discrepancy between traditional / archaeological and radiocarbon / archaeochemical chronology also remains under debate.¹⁴¹ LM IA in particular, ranges between c 1710 - 1600 BC according to radiocarbon results, or c 1575 - 1480 BC according to archaeo-historical dating.¹⁴² Nonetheless, the LM IA ceramic-date for the Thera eruption no

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¹³⁹ See table (table 18); Bronk Ramsey et al. 2010; Kutschera et al. 2012, Rowland and Bronk Ramsey 2011 and note 133. At the 'Radiocarbon Dating and the Egyptian Chronology' symposium, the 'Radiocarbon Dating and Egyptian Chronology project' mission announced their research results and carbon-dated Thutmose III to the fifteenth century, approximately in agreement with historical chronology but reverting to a 'high chronology' (c 1495 BC) - compare with (table 7) and Bietak et. al. 2007 for the Tell el-Dab'a dates. The radiocarbon tests for these dates on Pharaonic Egypt were conducted on 211 short-lived plant samples of funerary material (baskets, seeds, plant-based textiles, etc. from the Louvre and other museums, and Bruyère's Deir el-Medineh excavations at the eastern cemetery (Bronk Ramsey et al. 2010 contra Bruins 2010) (table 18). These samples were directly associated with specific chronological periods and particular reigns. Charcoal and mummified material were excluded. Taking into consideration the length of reigns (in Shaw 2003a) and percentages of error by contamination or other reasons, the results indicated that the New Kingdom started in 1566 BC with modelled hpd ranges 68% and / or 1570 with modelled hpd ranges 95% whereas according to Hornung and his colleagues the transition to the New Kingdom occurred in 1539 BC (Hornung et al. 2006, Hornung 2006: 197-199) and according to Shaw (2003) the New Kingdom started in 1550 BC. Bietak (2013) lately gave c 1550 BC for this transition (see note 133). The average calendrical precision was one of 24 years. The analytical results of this study are presented on ORAU: https://c14.arch.ox.ac.uk/egyptdb/db.php (last accessed 28 April 2011). Salima Ikram commented on Bronk Ramsey et al. 2010, in an online article of Catane, V. (2010) for almasryalyoum.com. http://www.almasryalyoum.com/en/news/egyptian-archeologists-comment-carbon-dating (last accessed 3 August 2013). Ikram was positive about the results, under specific circumstances – since new radiocarbon results keep getting published. It is also worth mentioning that Spence (forthcoming), of the Radiocarbon Dating and Egyptian Chronology Project, announced in the Oxford, March 2010, conference that the newly calibrated radiocarbon results and historical chronologies for the eighteenth dynasty can be synchronised, making the length of the Second Intermediate Period around twelve years shorter (the title of Spence's paper was 'Refining and locating the chronology of the eighteenth dynasty').

¹⁴⁰ (tables 9, 10, 19, 20).

¹⁴¹ compare (tables 9, 10, 14-16, 19, 20). See e.g. Darcque et al. 2006; Manning 2010a.

¹⁴² See Manning et al. 2006 for the radiocarbon date and Bietak and Höflmayer 2007; MacGillivray 2009 for archaeo-historical dating.
longer creates any controversies; however the recent debate is focused on 'where to place the date of this eruption (and so also late but not terminal LMIA) within its historical context and on an absolute calendar'. In particular, the LM I-II period in Crete remains questionable since the Eighties. Since then, researchers, such as Manning and Bronk Ramsey have composed a new chronological scheme, i.e. the so-named Aegean 'high' chronology.

This Aegean radiocarbon-based 'high' chronology was later verified by other highly sophisticated dating techniques (i.e. dendrochronology and pumice sampling from Greenland). The results of these tests suggested a shift of nearly a whole century in LM I-II absolute chronology, placing the Thera eruption sometime between 1655 and 1625 BC (or 1659 - 1612, 95.4% probability) whereas in historical / archaeological chronology, this is placed between 1550 and 1500 BC or later. In other words, the vast

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143 Phillips 2008: 33. In relative chronological terms, a mature / late LM IA date for the eruption is clear. See also Manning 2010b: 458 who discusses what is so far agreed about the eruption.

144 So do A-E interactions of this period, as demonstrated in Kemp and Merrillees 1980.

145 See and compare (tables 9, 10, 14-16, 19, 20). Manning and others radiocarbon-dated samples from many different sites on Crete, the Cyclades, the Greek Mainland and the Anatolian coast, from MM III to LM II. See Manning 1999; 2005; 2006; 2007; 2009; Manning et al., 2001; 2002a; 2002b; 2003; 2006; Bronk Ramsey et al. 2004; Manning and Bronk Ramsey 2009. Recent radiocarbon results from samples taken from Crete (Knossos, Khania, Mochlos, Myrtos Pyrgos) are also discussed by Manning 2009, linking Thutmose III with LM II. Manning (2009) suggests: LM IA c. 1700 to 1600 BC. LM IB C. 1600 TO 1470 BC. LM II c. 1470/60 to 1420 BC. Höflmayer and Zdiarsky are about to publish a very informative paper on A-E synchronisms seen through radiocarbon analysis (Höflmayer and Zdiarsky, forthcoming – proceedings of the Tenth International Congress of Egyptologists. Rhodes 2008). They discuss 'old' and 'recent' radiocarbon tests on samples from the mummy of Wah (pyramid of Senwosret II, Lahun), pyramid of Amenemhet III at Dashur, from Knossos (radiocarbon evidence for Middle Kingdom and Middle Minoan Periods). Also, samples from Akrotiri, Chania, Myrtos-Pyrgos, the Unexplored Mansion at Knossos and Mochlos (evidence for New Kingdom and Late Minoan Periods).

146 These results were based on dendrochronology (Manning 1999; Manning et al., 2001; 2002a) and the examination of the Greenland ice cores (Zielinksy et al. 1994; Clausen et al. 1997; Manning 1999; Hammer 2000; Hammer et al. 2003). However, the pumice-sample of the tests from the Greenland ice cores was said not to come from Thera (by Hammer 2000; Wiener 2007: 28; 2009, etc.).

majority of the test results seem to show that the absolute chronology of LM IA-B (and, in turn, that of the Cypriot LC IA (2)- B) is shifted backwards some 100/150 calendar years. It must be taken into account that, if one accepts a calendrical date as high as 1600 for the Thera eruption; this then implies that LM IA ended before 1570 BC, or even earlier.\footnote{See and compare (tables 9, 10, 14-16, 19, 20). An explanation: while in absolute chronology LM III is generally 'agreed' to be secure, LM I-II periods are debatable. According to A-E correlations, LM IB could have started before c 1540 BC (e.g. Warren 2006) but if the Thera eruption is placed between c 1623 to 1600 BC, this happened in the latter part of LM IA (see Warburton 2009). There were some objections concerning the 'new' chronology: Keenan (2003) and (Wiener) 2003; 2009, for example, argued that the pumice used for these tests was not a product of the Thera eruption but rather an Aniakchak late Holocene eruption chemical composition (see also, this chapter: 'An update in chronology'), and Pearce et al. 2007. Moreover, Manning and his colleagues (Manning et al. 2001; Manning 2006a) argued over a shift of twenty-two years after studying the Anatolian dendrochronological sequence, rejecting the 1646 BC date for the Thera eruption. This twenty-two year shift is still under debate by James (2002; 2006) and (Keenan 2004; 2006) whereas by 2007, only radiocarbon could dispute the Aegean 'high' chronology (Wiener 2001; 2003; 2006a; 2007; Manning 2005; 2006; 2007). The reliability of the Aegean 'high' chronology is still problematic after the recent study of archaeological material from Cyprus and elsewhere (see contributions in Bietak 2000b; 2003b; Bietak and Czerny 2007).}

In fact, major supporters of the 'high' eruption date were Friedrich et al. (2006), who studied a unique find of an olive tree, buried 'alive' by the volcanic tephra on Thera. After Friedrich and his colleagues applied the so-called radiocarbon wiggle-matching to a carbon-fourteen sequence of the tree-ring segments, they argued over the time-range between 1627 and 1600 BC for the Thera eruption, given a 95.4% probability, with a
very low possibility for this historical event to be placed within the first decades of the sixteenth century BC.\textsuperscript{149} In the 2009 publications of Friedrich and his colleagues, the eruption date ranged $1613 \pm 13$ BC, after the analysis of a second olive branch from Thera, in June 2007.\textsuperscript{150} From the Anatolian dendrochronological point-of-view, further research on the date of the Thera eruption was conducted by Pearson, Manning and their colleagues at Cornell University. These researchers placed the eruption in the mid-late seventeenth century BC.\textsuperscript{151} Manning (2010) summarises well the 2000s updates in Aegean relative and absolute chronology.\textsuperscript{152}

Radiocarbon tests on the date of the Thera eruption have been undertaken in the Oxford laboratory, where carbonised seeds of \textit{Lathyrus} and \textit{Hordeum}, charcoal of \textit{Lathyrus}, pulses, a charred twig of \textit{Tamarix}, peas, and grain from Thera have all been analysed,\textsuperscript{153} also, in laboratories in Oxford and Vienna, in a co-operative study, where LM IA Akrotiri sampling for tests included carbonised seeds of \textit{Lathyrus} and \textit{Hordeum}, charcoal of \textit{Tamarix} and \textit{Olea Europaea};\textsuperscript{154} the Akrotiri charcoal twigs of \textit{Olea Europaea} mentioned above, examined by Friedrich et al.;\textsuperscript{155} peat from Gölhisar,

\textsuperscript{149} Friedrich et al. 2006; Friedrich 2009: 99-121; 2009: 112-116. A number of factors could, however, have affected the calibration curve in the tree rings, as suggested by Knox and McFadgen 2004. Ring-counting error has also been considered by Friedrich et al. 2006. Wiener (2008) has raised the alarm over the possibility of an error in the tree-ring analysis, arguing that plants can sometimes fail to produce annual rings for one or more growing seasons, due to specific climatic conditions.

\textsuperscript{150} See, for example, Friedrich and Heinemeir 2009: 57-63; Heinemeir et al 2009: 285-294, for the most direct radiocarbon date for the eruption, based on the two olive tree branches.

\textsuperscript{151} Pearson et al. 2009. See also Manning 2009. Compare (\textit{tables 9, 10, 14-16, 19, 20}).

\textsuperscript{152} (\textit{tables 19, 20}). Manning 2010a; 2010b. For objections see this chapter 'An update in chronology', the debate in journal '\textit{Antiquity}'

\textsuperscript{153} See Manning et al. 2006; 2009

\textsuperscript{154} See Manning et al. 2006; Bronk Ramsey et al. 2004; Manning and Bronk Ramsey 2009.

\textsuperscript{155} See the previous paragraph.
Turkey;\(^{156}\) and cattle bones from the Tsunami deposit from Palaikastro, Crete.\(^{157}\) The list includes pumice from Maiyana and Lahun;\(^{158}\) additionally, the radiocarbon results from Aigina Kollona, Lerna and Ebla.\(^{159}\) Other studies have examined pumice from several EM regions, but there are disagreements over the results.\(^{160}\) As matters stand, the two main contenders for the date of the Thera eruption are: 1550 - 1500 BC or even down to 1450 BC, with 1525/1524 the most likely within this range, and 1650 - 1600 BC BC, with 1627/1600 the most likely within this range.\(^{161}\)

An explanation: the reliability of radiocarbon for the date of the Thera eruption depends on the analysis of the data, when erroneous measurements are likely to be taken; e.g. because of the variation of the ratio of C\(^{14}\) in different parts of the carbon exchange reservoir\(^{162}\) and difficulties or uncertainties in the procedure.\(^{163}\) Often, results speak in

\(^{156}\) See Eastwood et al. 2002  
\(^{157}\) See Bruins et al. 2008  
\(^{158}\) Radiocarbon and Instrumental Neutron Activation Analysis has been applied to Thera pumice found in the grave 1262, Cemetery K, Maiyana and on pumice found in the tomb of Maket, Lahun. These show the same result as that of the Thera Ashes project, i.e. that the Thera eruption material is not present in pre-dynasty eighteen. The analysis is undertaken by Foster et al. 2009: 171-180.  
\(^{159}\) See Wild et al. 2010 for the recent results from the Stratigraphic Project of Aigina Kolonna and Peyronel 2007 for the Ebla results. Also, the results from Lerna (Voutsaki et al. 2009) that agree with the 'high' chronological scheme. Radiocarbon results from Aigina suggest that the Middle Helladic period seems to have started earlier and lasted longer than traditionally assumed. The tests suggest that the Thera eruption date is in agreement with the science-derived date for the VDL (volcanic destruction level) of the Thera eruption.  
\(^{160}\) See e.g. the studies of pumice found in the Aegean, Egypt, Cyprus, the Near East, and the Anatolian coast (references include Wiener 2010; Manning 2009; Friedrich et al. 2009; Heinemeier et al. 2009, Hänsel et al. 2010; Kutschera et al. 2012).  
\(^{161}\) Manning 2010a. e.g. Wild et al. 2010 for a date down to c 1450 BC.  
\(^{162}\) If 'dead CO\(_2\)' (Cherubini et al. 2014: 269) from the volcano exists in the atmosphere of Santorini, then, a local 'reservoir effect' (contra Bruins and van der Plicht 2014: 284) could date the eruption a century (or more) older. For a discussion of the problem see Cherubini et al. 2014. On the effects of sample contamination in radiocarbon see Bowman 1990: 27-28.  
\(^{163}\) See e.g. the debate in 'Antiquity' and specifically Cherubini et al. 2014 who (contra Friedrich et al. 2014) examine the possibility that the Santorini olive branch used by Friedrich et al. (2006), might not be a live branch at the time of the eruption, and therefore it would reflect an earlier period. On this issue, and on the debate in 'Antiquity', see this chapter: 'An update in chronology'.
favour of both a high and low Aegean chronology.\textsuperscript{164} For that reason, radiocarbon results have provided a wide range of dates for the eruption, which is sometimes not good enough to establish a more secure and accurate date. In other words, the eruption must have taken place some time between the seventeenth and the sixteenth century BC, or even, in the fifteenth century.\textsuperscript{165} A similar scenario suggests that the radiocarbon dates may have undergone alteration / contamination, which makes calibration unreliable.\textsuperscript{166} For example, geophysical and atmospheric conditions may have affected the results. Solar activity and the so-called reservoir effects can also affect the results of radiocarbon tests.\textsuperscript{167}

To sum up:

<table>
<thead>
<tr>
<th>Radiocarbon 'high' chronology</th>
<th>Historical / archaeological 'traditional' 'low' chronology</th>
</tr>
</thead>
<tbody>
<tr>
<td>Thera eruption in the 17th century, while the Hyksos were in Egypt. End of LM IA is placed in the second half of the 17th century BC</td>
<td>Thera eruption in the beginning of New Kingdom in Egypt, i.e. 1540 BC, or more likely 1500 or even later, down to c 1450 BC.</td>
</tr>
</tbody>
</table>

\textsuperscript{164} For the view that the radiocarbon tests are unreliable due to misinterpretation, see Bronk Ramsey et al. 2004; Manning et al 2002a; 2003; 2006; Manning 2005; 2006; 2007. Manning et al. 2006 argued that their radiocarbon results from Akrotiri demonstrate that the Theran eruption took place as late as the middle of the sixteenth century, but can also allow a date more recent than 1500 BC. See also Bronk Ramsey 1995; 2001; Manning 2009; Wiener 2009a,b, forthcoming.

\textsuperscript{165} The eruption, of course, did not happen overnight, but in three, or four phases. For the mechanisms of the eruption, see Friedrich 2009: 80-97.

\textsuperscript{166} Only a few of the problematic dates for the Thera eruption, apart from the seventeenth century horizons proposed according to Aegean 'high' chronology, are 1524 BC (Wiener 2006a) and 1463 BC (Zielinksy et al. 1994 and Clausen et al. 1997). For the unreliability of calibration see the comments in Wiener 2003; 2007a; 2007b and Michczynski 2004.

\textsuperscript{167} This type of contamination is discussed in Wiener 2007a; Keenan 2002; Knox and McFadgen 2004
1.2.4c Issues in Aegean - Egyptian chronological links

From the perspective of traditional chronology, A-E chronological links are established through the discovery of Minoica in Egypt and Aegyptiaca in the Aegean and the examination of these artefacts in their archaeological context. Such a find is, for example, the lid with the royal names of Khyan, of the Hyksos Period, which was unearthed on Crete. Still, the method of synchronisms can be disputable. Further reference points are provided from wall paintings such as the Avaris frescoes and the Aegean processional scenes. The references to Aegeans and/or the Thera eruption in Egyptian inscriptions, though problematic, are also a chronological clue.

The traditional links between Egyptian and Aegean chronology have been intensively reconsidered in past decades since relative cultural dating of recent excavation material

168 [P163] (pictures 40, 41). See this chapter: 'Analysis'.
169 An explanation: if a particular artefact bearing the name of a Pharaoh is discovered on Crete, then one should guess that the archaeological context in which it was found, equals, at least approximately, the era of this Pharaoh. In other words, researchers have an A-E chronological synchronism. This is wrong, as some Aegyptiaca are antiques in their archaeological context
170 See chapters Five and Six.
171 Some texts mentioning Aegeans will be discussed in chapter Four. The Speos Artemidos inscription of the reign of Hatshepsut, which refers to the Queen sending braziers to her subjects who had been driven into the temples by raging storms and total darkness, may mention the Thera eruption (Goedicke 1992: 60-61). Another text, of the Ptolemaic Period, the so-called el-Arish text, may also refer to the Thera eruption, as it describes days of violence and tempest, in which no god or man could see the face of his fellow (Goedicke 1992). So does Manetho's Aegyptiaca / History of Egypt, with the 'Deucalion's flood in the reign of Thutmose III). Note also the eighteenth dynasty London Medical Papyrus, which contains various burn remedies (Francaviglia 1990). In the same list one should place the 'Tempest Stele' of Ahmose, from Karnak, which mentions 'darkness' and which may, or may not, refer to the Thera eruption (darkness could be a 'metaphor') (Foster et al. 2009: 176-178, Ritner and Moeller 2014, with related bibliography).
keeps affecting chronology.\footnote{172 See e.g. Höflmayer 2012b for a recent study focusing exclusively on chronology.} Egyptian Second Intermediate Period and early New Kingdom is problematic in dating;\footnote{173 See: ‘Major issues in Aegean and Egyptian chronology and Aegean - Egyptian chronological links (c 1900-1400 BC)’: ‘Aegean chronology’.} the chronology of Late Minoan Crete is still disputable\footnote{174 See: ‘Major issues in Aegean and Egyptian chronology and Aegean - Egyptian chronological links (c 1900-1400 BC)’: ‘Aegean chronology’.} and so, Aegean chronological links with Egypt are extremely fragile.\footnote{175 See this chapter: ‘The Tell el-Dab’a radiocarbon results and Aegean -Egyptian chronological links’ and ‘Chronological discrepancies: the size of the problem’.} Moreover, the use of highly sophisticated dating techniques in both Egyptology and Aegean Archaeology keeps modifying the various chronological scenaria.\footnote{176 (tables 14-16). Some of these problems have been discussed in the previous pages.} Even though pottery seriation occasionally confirms with confidence a particular chronological scheme against another, the shifting of the A-E chronological links is always dependent upon the precise date of the Thera volcanic eruption, the analysis of Thera pumice from various locations around the world, and the results and findings of excavation and research projects.

The debate over the date of the Thera eruption has been discussed previously.\footnote{177 See e.g. Höflmayer 2012b for a recent study focusing exclusively on chronology.} The following is how Aegean radiocarbon results affect Egyptian absolute chronology:

Assuming that Thera erupted c 1630 - 1600 BC and LM IA-B is shifted backwards more than a century; to fit a 17th century date for the LM IA Thera eruption with the archaeological records of the A-E chronological links implies that 100 to 120 years should be inserted between the reign of Amenhotep III and Ahmose I (or, even, the final Second Intermediate Period), which in turn signifies a total time span of about 185-200 years in Egyptian chronology. Needless to say, such a significant shift would be difficult
to accept.\textsuperscript{178}

The radiocarbon results of Bronk Ramsey et al.\textsuperscript{179} have been criticised by Bruins with regard to Aegean chronology and the Thera eruption.\textsuperscript{180} Bruins states that, when the radiocarbon results of Bronk Ramsey et al. are compared with the chronological schemes suggested by Friedrich et al., Bronk Ramsey, Manning, and Galimberti, and Bruins, van der Plicht and MacGillivray, it appears that the Thera eruption is older than the radiocarbon dates for the beginning of the New Kingdom.\textsuperscript{181}

Aegean chronological inter-linkages with the eighteenth dynasty are still questionable. \textsuperscript{178} Fantuzzi 2009: 479, e.g. the textually proved synchronism between Thutmose IV and the court of Mitanni contradicts such a scenario; the Egyptian ruler had received a Mitanni princess as a bride (Bryan 2003: 263-264). In short, the problem is very well illustrated in the words of Phillips (2008, vol. 1: 33): ’Shifting the date of this event (i.e. the Thera eruption), agreed to be late but not terminal LMIA in ceramic terms, nearly a century earlier than the date developed relative to Egyptian and other chronologies, affects not only the date and length of LMIA but also the several other ceramically-dated periods either side of it.’ It is worth mentioning that in her recent monumental work (2008) Phillips considers it difficult to accept that LMIA dates to the seventeenth century BC, based on the cross-cultural correlation of the MMIII-III and later twelfth and thirteenth dynasty artefacts and stratified levels. Therefore, Phillips has chosen to work on the basis of the historical chronology scheme and the relative sequence in her 2008 publication.\textsuperscript{179} (table 18) See Bruins 2010: passim

\textsuperscript{180} See Bronk Ramsey et al. 2010; Friedrich et al. (2006); Bronk Ramsey, Manning, and Galimberti (2004) and Bruins, van der Plicht and MacGillivray (2009). Bruins (2010) considers the results of Bronk Ramsey et al. 2010 in accordance with the Thera eruption, the radiocarbon olive branch test results of Fredriech et al (2006), the radiocarbon Thera pumice results from Thera (Doumas 1983), the tests on animal bones from Palaikastro (Bruins et al. 2009) and the radiocarbon results of Bronk Ramsey et al. 2004. By comparing these radiocarbon dates with the C14 dates from Bronk Ramsey et al. 2010 he states that the Thera eruption is older than the Bronk Ramsey et al. 2010 C14 dates, either calibrated or uncalibrated. Bruins notices that phases D1.2-1.1 (linked to the beginning of the New Kingdom) date c 1530-1480 BC based on historical-archaeological dating (Bietak and Höflmayer 2007: 13-23). A date c 1720-1640 BC is nevertheless given by C14 uncalibrated (Bietak and Höflmayer 2007: 13-23). This is a lot older compared to the Bronk Ramsey et al. 2010 results (beginning of the New Kingdom c 1560 BC) and there seems to be a lacuna of circa 90 to 170 years between the two. If one considers that according to the historical-archaeological Egyptian chronology the Thera eruption occurred c 1500 BC or later (Bietak and Höflmayer 2007) the difference between the two dating methods is also seen in the two alternative dates for the LM IA period in the Aegean: i.e. 1700-1610 BC with radiocarbon (Manning et al. 2006) or 1575-1480 BC with archaeo-historical dating (MacGillivray2009).
However, the situation is slightly more encouraging as far as the absolute Egyptian chronology is concerned. This is because, the dates and events linked to the eighteenth dynasty are also confirmed by astrochronology; therefore the absolute dates for this period cannot be shifted by more than a short period. Thus, according to Kitchen's chronological scheme, the beginning of Ahmose's reign dates c 1539 BC. Warren has expanded Kitchen's concept, arguing that LHI / LMIA probably lasted through to the end of the sixteenth century, to also overlap the early fifteenth century. Still, Krauss and Warburton defend the 1528 BC date as the beginning of the New Kingdom whereas Bietak, as mentioned previously, has placed the transition to the New Kingdom at c 1550 BC; in approximate accordance with Bronk Ramsey et al. who place the transition c 1550 - 1560 BC. Bietak in particular has previously associated the

182 Kitchen 1982; 2000; 2007; Krauss 2003; 2007. It is likely that the 200/230 years time-span between the late / final Second Intermediate Period and the Amarna age correspond approximately to the LM I - II periods on Crete, and to the LC I A2 -II periods on Cyprus; in other words LM I - II are synchronised with the eighteenth dynasty in Egypt and the LBA in the Levant. This of course holds true only as long as one follows the 'traditional' view of chronological interrelations through archaeological contexts (Fantuzzi 2009: 480).

183 Firneis 2000; Firneis et al. 2003; Huber 2011. The studies of Kenneth Kitchen (2000) on the dating of the New Kingdom and the Third Intermediate Period have defined the chronology of these two problematic eras. Thereafter, Kitchen has suggested that Tutankhamun must have died no earlier than 1327 BC, given his correspondence (EA15) with Assur-Uballit I. Similarly, based on textual evidence, Amenhotep III must have died no earlier than 1358 BC, given his correspondence (EA6) with Burnaburiash II. See (tables 4, 5, 9, 10). Moreover, astroarchaeology seems to generally agree with these dates. Interestingly, radiocarbon results for the date of the Amarna Period do confirm an absolute date of c 1375 - 1320 BC for the period, data which are also confirmed by radiocarbon results for the Aegean LM/LH III A2 (Bruins et al. 2003).

184 Kitchen 2007: 168-170

185 Warren's concept (2006) is based on a series of evidence; among them, LMIA pottery found in the Cypriot LCIA2-B contexts of Toumba tou Skourou and Hagia Irini, associated with Egyptian Mechak, which suggest a date of Thutmose III. It is worth mentioning that the chronological links between Egypt and the Aegean have also been considered under Cypriot archaeology, since the Tell el- Yahudiyeh exports of the late seventeenth century were discovered in Tell el-Dab'a MCIII contexts. See Eriksson 2003. Warren (2009) also discusses the transition to the New Kingdom, based on Egyptian pottery imitating Minoan (LM I) rhyta from Tell el-Dab'a and other vessels (among them, Egyptian pottery discovered on Thera and Mycenae). In this study Warren argues that the New Kingdom - eighteenth dynasty - started in, or very close to 1540 BC.

186 Krauss and Warburton 2009; Bronk Ramsey et al. 2010. See also note 133. Krauss and Warburton place the reign of Thutmose III between April/ May 1468 BC and November 1415 BC (table 13).
transition to LM IB with c 1480 BC, i.e. the early Thutmoside period.\footnote{Bietak and Höflmayer 2007: 17 (table 19)}

Besides, Manning’s work synchronises Thutmose III with the latest part of LM IB (Monopalatial Crete of Knossos and possibly Chania) and in fact it makes Thutmose III almost contemporary to LM II.\footnote{Manning 2009: 222-225. Manning strongly argues that if Thutmose III equals LM II this works nicely with the radiocarbon results conducted by his colleagues (i.e. it is in agreement with Bronk Ramsey et al. 2010); with the LH IIB (=LM II) squat jar from the tomb of Maket at Lahun; the kilts of the Cretans in the tombs of Mencheperreseneb and Rekhmire; the significant amount of Egyptian and Egyptianising artefacts in LM II-IIIA2 early contexts; and the Tell el-Dab'a frescoes. Manning’s chronology, in relation to the Tell el Dab'a frescoes, will be covered in chapter Five.} He also synchronises LM IA: c 1700 - 1600 BC; LM IB: c 1600 - 1470/1460 BC; LM II: c 1470/1460 - 1420 BC.\footnote{Höflmayer 2008: 146 (table 16). See MacGillivray 2009: 154} MacGillivray favours 1504 - 1450 BC for the reign of Thutmose III, which he links to LM IB, whereas he places the Thera eruption in mature LM IA and the reign of Hatshepsut 1500-1483 BC.\footnote{Phillips is not specific on the interlinkages between the reigns of Egyptian rulers with Minoan ceramic periods.} Phillips is not specific on the interlinkages between the reigns of Egyptian rulers with Minoan ceramic periods.

Hassler and Höflmayer, who have examined a hair sample from a burial at Mostagedda, giving 1690 - 1610 BC (calibrated) at 1-sigma (1738-1532 at 2-sigma), when the associated grave goods 'seem to imply a date in the early New Kingdom'.\footnote{Höflmayer 2008: 167; 2009. Höflmayer's concept is based on a number of archaeological finds, such as the stone imitation of Base Ring II (BS II) pottery from Cyprus, which came into use in Egypt at the time of Thutmose III. This type of pottery is also found in late LMIB, early LMII contexts at Mycenae and in the Royal tomb at Isopata, near Knossos. At the same time, the author considers a}
Finally, selecting to use 'high', 'middle', or 'low' has become a matter of personal preference for researchers in both fields. Furthermore, new schemes have been invented, such as 'ultra high' and 'ultra low'. To match Egyptian chronological links, the scheme considering both the archaeological evidence and the radiocarbon results is summarised in the 'compromised early' and 'modified low' Aegean chronology which currently places the Thera eruption between 1580 and 1520 BC. However, this is only a compromise which does not always agree with the archaeological evidence or the radiocarbon data. As an example, Warren's chronological scheme is based on artefact comparisons that link the Aegean and Egypt, providing a c 1530 BC date for the Thera eruption.

1.2.5 The Tell el-Dab'a radiocarbon results and Aegean - Egyptian chronological links

The most intriguing question in researchers' minds yet remains in doubt: what about the radiocarbon results from the Egyptian Tell el-Dab'a? In the past, a 'preview' of these

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Mycenaean pot from the tomb of Maket at Lahun, and the Aegean processions in Thebes, which also link Thutmose III with the end of LM IB, recalling the end of LM IB as the Mycenaean takeover in the Aegean. Höflmayer later (2009: passim) examined the A-E synchronisms through archaeology, among which the transition from LM IB to LM II (he places it during the late reign of Thutmose III / c 1450-1425 or slightly later) and the transition from LM IA to LM IB (which he places in early eighteenth dynasty, up to the reign of Hatshepsut or between c 1540 and about 1480 or c 1524 and 1465, based on the Egyptian chronology of Kitchen 2000 and that of Krauss and Warburton 2009).

194 (tables 1-20)
196 Warren 2006: 305-319 has provided the following scheme for Aegean chronology: LMIA: 1600-1510/1500 BC; LMIB: 1510/1500-1440 BC; LMII: 1440-1400 BC. His evidence goes against the radiocarbon dates from Thera but does not agree with Bietak's point-of-view either. In 2010, he has re-confirmed a c 1530 BC date for the eruption.
197 For Tell el-Dab'a see chapter Five.
results was published in three sources: a) *Egypt and the Levant XVI* (2006) covered the contributions of the 2005 conference titled 'Egypt and Time', which took place in Vienna. In this, Wiener's summary of the conference at the end of the volume published a chart supplied by Weninger, Kutschera and their colleagues, who examined the principle of the Bayesian radiocarbon method in the same work.198 b) a chart in the *Synchronisation of Civilisations in the Eastern Mediterranean III* (SCIEM III).199 c) chronology was also briefly discussed in *Taureador Scenes in Tell el-Dab'a (Avaris) and Knossos* 200. The Tell el-Dab'a radiocarbon results were re-discussed in Bietak 2013a (on the basis of his 2010 paper in the 'Radiocarbon and the chronologies of Ancient Egypt' congress') and were eventually published in great detail in Kutschera et al. (2012).201 In general there is an agreement between the preview of the results and the 2012 publication.202

Radiocarbon results from Tell el-Dab'a have shown an offset of 100 - 150\(^{+}\) years higher than historical chronology.203 In these 2000s Tell el-Dab'a results, the early New Kingdom is pulled up to two centuries earlier than the historical dates.204 The beginning

198 For the Tell el-Dab'a tests, samples of seeds were taken from fourteen different strata and then Bayesian sequenced. Bayesian sequencing has become a regular method for testing stratified sets of samples. F. Weninger et al. 2006; Wiener 2006b: 332 (chart). Also, for the Bayesian statistics see Renfrew and Bahn 2000: 140, 141, 142.
199 Bietak and Höflmayer 2007a: 14, 15.
200 (table 7). Bietak et al. 2007a. See chapter Five for the Avaris frescoes. The preferred spelling in the publications of Bietak and his colleagues is 'taureador' and not 'toreador'.
201 Compare (table 7) to (table 8).
202 See the following pages: 'An update in chronology'.
203 (tables 4, 5, 7, 8, 13, 14-16, 17a-d, 18). See Bietak and Höflmayer 2007: 14. In the Oxford radiocarbon conference Bietak still maintained that he has an offset of up to 150 years in the 14C dates of Tell el-Dab'a and notes that there are similar offsets at Aigina and Ebla. See also Bietak and Höflmayer 2007: 14, fig. 1: a table with the preliminary results of radiocarbon dates taken from the stratigraphy of Tell el-Dab'a and their offset towards historical chronology (courtesy of W. Kutschera).
204 See also note 133.
of the New Kingdom (i.e. Tell el-Dab'a phases D/1.2,1.1 in \textit{(table 7)}) is dated between 1530 and 1480 on the basis of the archaeological material.\textsuperscript{205} Yet, calibrated radiocarbon results for these strata provide 1720 - 1640 BC.\textsuperscript{206} Bruins, for instance, notices that c. 1720 - 1640 BC for the beginning of the New Kingdom is much older that 1550 to 1560 BC provided by Bronk Ramsey et al. for the same era.\textsuperscript{207}

Stratum C/2,\textsuperscript{208} archaeologically related to late Thutmose III and Amenhotep II, ranges between 1670 and 1530, midpoint 1620 BC, whereas in historical chronology the change of reign from Thutmose III to Amenhotep II is normally placed in 1425 BC.\textsuperscript{209} Also, the range for stratum C/3, i.e. the stratum of Minoan paintings which is archaeologically linked to Hatshepsut and early Thutmose III according to Bietak, is 1700 - 1620 BC, with midpoint 1660, whereas according to historical chronology, the early reign of Thutmose III's reign are placed c 1470 BC.\textsuperscript{210} Wiener has queried the reliability of these tests / results underlying the dichotomy between radiocarbon and historical chronology.\textsuperscript{211}

For Bietak, the transition from LM IA to LM IB occurred c 1480 BC, which, in the

\begin{itemize}
\item \textsuperscript{205} Bietak 2003; Bietak and Höflmayer 2007, and \textit{(table 8)}.
\item \textsuperscript{206} Bietak and Höflmayer 2007
\item \textsuperscript{207} See Bruins 2010; Bronk Ramsey et al. 2010.
\item \textsuperscript{208} \textit{(table 7)}
\item \textsuperscript{209} Bietak 2007a: 16 (chart); Wiener 2006b: 332 (chart)
\item \textsuperscript{210} Bietak 2007a: 16 (chart); Wiener 2006b: 332 (chart). The 'high' chronology places Thutmose III 's death in 1450 BC. See MacGillivray 2009: 162 \textit{(tables 6-8, 13)}. For the Minoan frescoes at Avaris see Bietak, Marinatos and Palyvou 2007 and chapter Five, particularly 'Stratigraphic position and date of the Avaris frescoes'.
\item \textsuperscript{211} Wiener 2006b: 331
\end{itemize}
Egyptian perspective, corresponds to the early Thutmoside period. He also maintains that Thera erupted approximately at the time of Thutmose III, whose reign is synchronised with strata C/3 and C/2. As evidence of the Thera eruption in the reign of Thutmose III, Bietak provides the pieces of pumice found in a scarab workshop [F], in stratum C/2 (Late Thutmose III, early Amenhotep II) presumably used for polishing, even though the pumice might have arrived there earlier. He states that Thera pumice appears in large quantities in the eighteenth dynasty linked stratum C/2 onwards, whereas no pumice has been found at Hyksos levels. He also provides examples of Thera pumice from other sites along the Levantine coast, such as Tell Habwa and Tell el-'Ajjûl. These similarly, indicate a Thutmose III date for the eruption. In other words, for Bietak, Thera erupted in the fifteenth century. It is worth stating that two finds, the reworked Egyptian alabastron Akr*1800 and the now lost WSI cup from

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212 Bietak and Höflmayer 2007: 17
214 For the Thera (origin debated) pumice from the Avaris workshops see Bietak 2004: 214 and (tables 7, 8). Additional evidence comes from a particular type of artefact: the transition from the late LMIB material to Mycenaean vessels occurred during the reign of Thutmose III, since an example of LH IIB (contemporary to LM II on Crete) was found in a tomb group datable to Thutmose III (Aston, D. A. 2003).
215 See Bietak 2007a; forthcoming. An explanation: if the Thera eruption occurred in the late seventeen century BC, as argued by Manning 2006a and Friedrich et al. 2006, then, according to Egyptian chronology of Kitchen 2007 one should find pumice in the Hyksos strata. If, however, the eruption took place c 1525 BC, then pumice ought to be found for the first time only in later levels. All the pumice samples from Egypt and the Levantine coast examined by neutron activation analysis date from the eighteenth dynasty onwards (Warren 2007; Bichler et al. 2007). Sterba et al. 2009 examined pumice samples from Maket, Maiyana, Sedment and Amarna. These were proven to come from various Mediterranean volcanoes, including two samples from the Minoan eruption of Thera, one from Amarna, and the other from Maket, probably from the time of Thutmose III. The authors claim that there was no Theran pumice from the Minoan eruption found in a context prior to Thutmose III, thus supporting Bietak's late dating for Thera. However, interestingly, the authors mentioned in their conclusions that 'Volcanic material from this eruption of Santorini is seen beginning just after Ahmose, or probably in the last year or two of his reign.' (Sterba et al. 2007: 1743, compare this notion to Ritner and Moeller 2014).
Thera, have also suggested that the eruption took place after the end of the Second Intermediate Period, and therefore, they link it to the eighteenth dynasty. The date of Aegean (-style) frescoes discovered in Tell el-Dab'a (discussed in chapter Five) raises further questions in A-E chronological links.

1.2.6 An update in chronology

Here the author summarises some recently-raised views in chronology, and updates the topic from end 2009 / 2010 onwards:

- Wiener (2009b) questioned the 'high' 17th century date for the Thera eruption, once again, expressing criticism over radiocarbon dating.

- Warren (2010) re-suggested a c 1530 BC date for the eruption, on the basis of archaeological evidence.

217 The WSI (White Slip One) bowl from Thera was rather old when buried; possibly an antique in its context (?) This discovery makes LCIA2 contemporary to LMIA. For the artefact see Merrillees 2001; Wiener 2001; 2003. Both Cypriot WSI and BRI (Base Ring I) wares make their appearance at Tell el-Dab'a not earlier than phase C/3, which probably equates to the reign of Hatshepsut and Thutmose III. They are followed by SWII and BRII which is contemporary to C/2 from Tell el-Dab'a (Bietak and Hein 2001; Bietak 2003b; Wiener 2001). At this latter site, Cypriot LCIA1 equals phase D/1; LCIA2 equals C/3 and LCIB links to phase C/2 and the reign of Thutmose III. This is why Bietak and his colleagues (Bietak 2004: 214-215; Bietak and Hein 2001) do not accept the shift of a century suggested by the Aegean 'high' chronology, even suggesting an alternative and elongating the LCIA2 period with no consequence for the traditional chronology. See below, chapter Five: 'Stratigraphic position and date of the Avaris frescoes'.

218 Only material which is relevant to the topic of this thesis is included, and the following studies are provided as an itinerary (by date, and not by type of chronology, Egyptian or Aegean).

• Schneider (2010) placed year 1 of the reign of Thutmose III in 1476 BC.221

• Bronk Ramsey et al. (2010), Dee et al. (2010) and Dee (2013) dated the start of the reign of Thutmose III between 1494 and 1483 BC whereas the start of the reign of Amenhotep II was placed between 1441 and 1431 BC. For them, the New Kingdom started between 1566-1552 BC (68.2% probability) and between 1570-1544 BC (95.4% probability), approximately agreeable with historical chronology (Kitchen 2000) but a longer reign of Thutmose IV and Amenhotep II and a higher (to c 20 years) transition date to the NK was suggested.222

• Franzmeier et al. (2011), who presented new radiocarbon data from organic material in tombs 254 and 246 in Sedment, also saw Bronk Ramsey et al. (2010) in agreement with the historical chronology of Kitchen (2000) although they argue for a slightly earlier start of the New Kingdom.223

• Huber (2011) placed year 1 of Thutmose III in 1504 BC, based on lunar dates.224

• The results of Manning and Kromer (2011) reconfirmed a date of the Thera eruption in the second half of the 17th century BC. The results of Wild et al.

221 (table 4). Schneider's dates are based on archaeology (including royal mummies) and texts, but radiocarbon and lunar dates have also been considered (see Schneider: 377, 383, 402).
222 Suggested on the basis of these results by Höflmayer 2012: 443. Also see Manning and Kromer 2011: 416-417.
223 Franzmeier et al. 2011: 20
224 Huber 2011: 194-206
(2010) agreed with the science-based dates for the Thera eruption, and so did the results of Bruins et al. (2009) and Baillie (2010).\footnote{225 These are the research data from Aigina Kollona and the Palaikastro Tsounami deposits. See above 'Issues in Aegean chronology' for details.}

- Höflmayer (2009, 2012a) stated that Egyptian stone vessels from Mycenae may suggest a low chronology of the Thera eruption, although he accepted that the 'low'-chronology-supporting radiocarbon data from Egypt and the Levant are inconclusive; and has eventually moved to a 'high' date for the eruption.\footnote{226 He uses archaeology as evidence: an Egyptian jug and an Egyptian alabastron from Mycenaean shaft-graves IV and V. He refers to the radiocarbon results of Tell el-Dab'a, Ashkelon, Megiddo. Tell el-Ajjul (Sterba et al. 2009). For Höflmayer supporting the high chronology for the Thera eruption see Höflmayer 2012a.}

With respect to the Tell el-Dab'a results placing the eruption in the reign of Thutmose III / Amenhotep II, he emphasized that it is not possible to move LM IA as low as c 1450 BC, as LM IB is securely contemporary to the early reign of Thutmose III and the transition to LM II happened c 1450 BC.\footnote{227 Höflmayer 2009, 2012: 414, Manning 2009, 2011.}

But overall, on the basis of the latest results of Bronk Ramsey et al (2010) and Dee et al. (2010), he stated that, if a slightly higher date for the start of the New Kingdom is accepted, the offset of the Thera eruption falls down to c 50 years; an offset which Manning and Krommer appeared reluctant to accept.\footnote{228 Höflmayer 2012: 444. He refers to the 100+ year offset between traditional and revised chronology. See also Manning and Krommer 2011: 417.}

- Manning and Kromer (2011) investigated why the radiocarbon results from Tell el Dab'a (Bietak and Höflmayer 2007), especially with regard to the reigns of
Hatshepsut / Thutmose III, are not agreeable with the results of Bronk Ramsey et al. (2010).^{229}

- Manning and Kromer (2012), after discussing the study of Soter (2011), insisted on a date in the late 17th century for the Thera eruption, which, to their view, is more comparable with EM chronological synchronisms.^{230}

- Höflmayer et al. (2013) presented radiocarbon data from Sakkara (Lepsius) tomb 16 containing a LH IIA alabastron and reconfirmed the synchronism of the LM IB and LH IIA with the earlier part of the reign of Thutmose III.^{231}

- In Edfu, from a 'safe-to-date' archaeological context, Syro-Palestinian-style sealings of Khyan were unearthed together with sealings naming Sobekhotep IV in an important administrative building complex.^{232} The sealings accompanied commodities sent from the north, possibly from Tell el-Dab'a.^{233} The authors argue that fifteenth-dynasty ruler Khyan is almost contemporary with thirteenth-dynasty ruler Sobekhotep IV.^{234} This means that the late thirteenth dynasty and the early fifteenth dynasty would overlap.^{235}

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^{229} Compare (table 7), strata C/2, C/3 (Hatshepsut/Thutmose III) to the reign of these rulers in (tables 4, 18). There is an offset of 100 or even 150 years between these results.

^{230} Manning and Kromer 2012: 468-469

^{231} Höflmayer et al. 2013: 117.

^{232} See Moeller and Marouard 2011: passim. Sealings with the name of Khyan were also discovered at Tell el-Dab'a and date to early fifteenth dynasty (Bietak 2011a:40-41).

^{233} Moeller and Marouard 2011: 100


agrees with the most recent fieldwork of Tell el-Dab'a. 236

- An updated, detailed version of the Tell el-Dab'a radiocarbon results was published by Kutschera et al. (2012). 237 There is a ~100'-year difference between the radiocarbon results of Tell el-Dab'a and Egyptian chronology, and a similar (or even larger) offset between the historical / archaeological and radiocarbon date of the Thera eruption. 238 As in the first publication of these results, 239 the reign of Amenhotep II ended at 1400, as Stratum C/2 (where Theran pumice was found) has as a terminus post quem the reign of this ruler. 240 The Second Intermediate Period starts c 1790 BC while Ahmose conquered Avaris in 1530 BC. 241 In (table 8) the stratum of the Avaris frescoes corresponds to the mid Thutmoside Period and a New Kingdom date for the eruption is still supported. 242

- Gautschy (2013) placed the beginning of the New Kingdom in 1564 BC and year 1 of Thutmose III in 1493 BC, and considered these arrangements 'in good agreement with Assyrian, Babylonian and Hittite chronology'. 243

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237 See (table 8).
238 Kutschera et al. 2012: 408, 419, Bietak 2013a. It is evident that the radiocarbon results from Tell el-Dab'a do not agree with historical chronology with an offset of 90 years or even up to 130 years (diagonal line in (table 8).
239 i.e. the results in Bietak et al. 2007.
240 See chapter Five: 'stratigraphy of the Avaris frescoes'.
242 As this table shows, C/2 starts c 1500 BC and covers Thutmose I, Thutmose II, and the Hatshepsut/Thutmose III co-regency.
243 Gautschy 2013: 66-67, table 4:8. Gautschy reached this conclusion after the consideration of a combination of factors: lunar and sothic data, a solar eclipse, known historical and archaeological
The latest published update on chronology is a rather competitive debate in Antiquity,\textsuperscript{244} where researchers re-evaluated the dating of the charred olive tree branch from Thera and the results of Friedrich et al. (2006) (= Thera eruption c 1628 BC).\textsuperscript{245} The following points were raised in this journal:

I) Cherubini et al. (2014) defended the 'low' chronology for the eruption (c 1500). They argued that the date suggested by Friedrich et al. (2006) is wrong, as 'counting' the annual tree-rings of \textit{olea europaea} is considered unreliable;\textsuperscript{246} and there is even a possibility that the branch in question was not even 'buried alive' when Thera erupted.\textsuperscript{247}

II) Yet, Friedrich et al. (2014) dismissed these points, arguing that Cherubini et al. (2014) have not considered important published scientific research after 2010;\textsuperscript{248} and emphasising that the olive tree branch was found \textit{in living position}.\textsuperscript{249}

\textit{synchronisms, C\textsuperscript{14} results, textual material and the finds from the tomb of Horemheb (see Gautschy 2013: 56-66 for a detailed analysis).}

\textsuperscript{244} Antiquity, issue 88, 2014. The debate is titled 'Bronze Age catastrophe and modern controversy: dating the Santorini eruption' and includes the following contributions: Cherubini et al. 2014; Friedrich et al. 2014; Bietak 2014; Bruins and van der Plicht 2014; Kuniholm 2014; MacGillivray 2014, and Cherubini and Lev-Yadun 2014.

\textsuperscript{245} A date preference of Manning et al. 2006, 2009; Friedrich and Heinemeier 2009; Heinemeier et al. 2009, etc. For the results of Friedrich et al. (2006) see above: 'Issues in Aegean chronology'.

\textsuperscript{246} As shown by Arnan et al. 2012; De Micco et al. 2012; Rossi et al. 2013; and Cherubini et al. 2013. Cherubini et al. 2013 have done dendrochronological analysis on olive trees currently growing in Santorini).

\textsuperscript{247} The authors claim that olive trees in the Mediterranean often 'carry dead branches, sometimes very old ones' (Cherubini et al. 2014: 271). Other reasons that make them favour the 'low' (c 1500 BC) date for the eruption include the historical evidence (e.g. pottery interconnections) not supporting an eruption date c 1628 BC, and the 'high' date's disagreement with Egyptian radiocarbon measurements (such as Bietak and Höflmayer 2007, Bronk Ramsey et al. 2010; Warren 2010; Wiener 2010).

\textsuperscript{248} e.g. the studies of Höflmayer 2010 and Kutschera et al. 2012.

\textsuperscript{249} Friedrich et al. 2014: 275-276.
III) Bietak (2014) once again advocated the low Aegean chronology and the Thera eruption date in the Thutmoside period, which, to his mind, is in agreement with historical and archaeological chronology from Tell el-Dab'a and elsewhere, and in accordance with the results of Sterba (2009) who investigated over 400 Theran pumice samples from Egypt and the Levant and found no sample to date before c 1500 BC. Bietak himself expressed concerns, not only over the dendrochronological dating of the olive branch from Thera, but also, over C$^{14}$ dating in general, noticing that an offset of over a century is even seen in the case of the radiocarbon results from Tell el-Dab'a. Therefore, he stated, the credibility of radiocarbon results should not be taken for granted. In his opinion, 'adjusting' the reigns of Egyptian rulers in order to fit one particular radiochronological scheme or another with the purpose of bringing the beginning of the New Kingdom as back as nearly 1580 BC, is an unreliable process.

IV) Bruins and van der Plicht (2014) compared radiocarbon results from the studies of Friedrich et al. (2006) and Bronk Ramsey et al. (2004) for Thera, and Bruins et al. (2008; 2009) for Palaikastro; and considered them identical. Therefore, they still support the results of Friedrich et al. (2006) for a 'high' eruption date, concluding that the reasoning of Cherubini et al. (2014) against a

250 Bietak 2014: 281
251 Bietak 2014: 279
252 Bietak refers to the results published by Kutschera et al. (2012).
253 As it is done by Manning 2009, in press; and Höflmayer 2012a.
254 Bietak 2014: 281
'high' eruption date, is 'flawed'.

V) Kuniholm (2014) considered olive trees inappropriate for
dendrochronological cross-dating purposes, as the exact number tree-rings
cannot be determined with certainty, to conclude that the results of Friedrich et
al. (2006) are unreliable.

VI) MacGillivray (2014) felt that the work of Cherubini et al. (2013; 2014) takes
research back to the pre-'radiocarbon evolution' stage, and gives a fair advantage
to historical chronology.

VII) Lastly, Cherubini and Lev-Yadun (2014) closed the debate by replying to
their adversaries.

- Ritner and Moeller recently published a paper that (also) places the eruption
nearer to (or, in) the reign of Ahmose, based on the Ahmose Tempest Stele.

The authors date the stele and the start of the reign of Ahmose to c 1580 BC or

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256 Bruins and van der Plicht 2014: 286, on the basis of a number of reasons and comparisons, listed in
pages 284-286 (e.g. because the comparison of Friedrich et al. 2006 with their radiocarbon results
from Palaikastro (Bruins et al. 2008; 2009) indicates that 'the Thera olive branch did not die a century
before the eruption' (ibid: 286).

257 Kuniholm 2014: 288

258 i.e. Cherubini and Lev-Yadun replied to Friedrich et al. 2014 and Bruins and van der Plicht 2014. For
instance, according to Cherubini and Lev-Yadun (2014), a) an approximation of the count of tree rings
is not enough to establish safe results, and b) Buins and van der Plicht (2014) ignore 'the variable
biology of cambian activity' (page 290) as discussed in research such as Rossi et al. 2013 and Arnan et
al. 2012.

259 The paper is: Ritner and Moeller 2014, see also Foster and Ritner 1996 for the same suggested date
(particularly pages 5-7, 12) and a comparison with other texts (e.g. Mesopotamian sources). Another
paper on the same topic will be addressing the same issue (see Ritner and Moeller 2014, forthcoming).
The stele's new translation / interpretation (by Ritner, on the same paper) describes weather
phenomena that could be related to the Thera eruption. Ritner argues that Ahmose witnessed the
catastrophic event. For the stele and the first translation see also Vandersleyen 1967; 1968. According
to Goedicke (1986: 169-175) the stele could be linked to the Hearst Medical Papyrus, whereas Ritner
and Moeller (2014) also link this stele with the Rhind Mathematical Papyrus (Peet 1923; Robins and
Shute 1987), which also describes weather phenomena and might be related to the Theban(Egyptian)-
Hyksos warfare before (or at) the very beginning of the eighteenth dynasty.
even earlier, at c 1600 BC. Such a date would be more in agreement with the c 1628 / 1600 radiocarbon dating of the eruption, based on the 'famous' olive tree branch. It is also nearer to the radiocarbon-derived dates suggested for the reign of this ruler by Bronk Ramsey et al. 2010, based on plant samples of funerary material from museums.

- A last minute entry: David Aston (May 2014) places the beginning of the reign of Thutmose III in 1493 BC.

- The second edition of the 'A Test of Time' publication (in press) is in line with the historical chronology of Aston (2007) and Bronk Ramsey et al. (2010) but goes with a longer and higher chronology of the eighteenth dynasty with the reign of Thutmose III starting from 1504 or 1490 BC, rather than 1479, while the late LMIB and LMII are synchronous with the earlier part of Thutmose III's reign.

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261 i.e. the study of Friedrich et al. 2006.
262 Compare (table 4) to (table 18). Bronk Ramsey et al. (2010) place the beginning of the reign of Ahmose to c 1570 BC. For the dating of short-lived plant samples of funerary material by Bronk Ramsey et al. 2010 see note 139.
263 Aston 2014: 305-307, based on wine jars from Tell el-Dab'a. Aston also considers the possibility that the reign of Thutmose III started in 1504 BC (which allows a re-dating of the phases from Tell el-Dab'a) – to be published in a following paper (personal communication 13 May 2014).
264 Personal communication with Sturt Manning, 8 August 2013; Manning, in press.
1.2.7 What do the latest publications (from 2010 onwards) suggest about Aegean - Egyptian chronological links?

In the EM, and particularly A-E chronological links, the debate over a 'low' or 'high' date for the Thera eruption remains, with scientific methods contradicting the historical / archaeological evidence. In Egyptian archaeology, it is encouraging that overall, there is a general agreement between radiocarbon and historical chronology.\(^{265}\) Nonetheless, the start of the New Kingdom is still flexible (by a few decades) and more radiocarbon results are required to date the Second Intermediate Period.\(^{266}\) The reign of Thutmose III is also not unanimously agreed.\(^{267}\)

After the publication of the full set of results from Tell el-Dab'a, it is understood that the major problem persisting in the last couple of years is:

- that the Tell el-Dab'a radiocarbon chronology is 'way off' compared to the results of Bronk Ramsey et al. (2010) which in turn is in agreement with Egyptian historical chronology.\(^{268}\)

\(^{265}\) e.g. Bronk Ramsey et al. 2010, Dee et al. 2010 in approximate agreement with Kitchen 2000, Aston 2007.  
\(^{266}\) Bronk Ramsey et al. (2010) did not extensively study this period. (Table 4) manifests the problem: the difference is usually two to three decades, but a notable exception is Ritner and Moeller 2014 (Ahmose tempest stele) who see a 1600 / 1580 start for the reign of Ahmose I, contra Kutschera et al. 2012 (radiocarbon based, start of the reign of Ahmose: 1530 BC). \(^{267}\) (Table 4), e.g. Bronk Ramsey et al. 2010 contra Kutschera et al. 2012, Huber 2011, Aston 2014, and Manning, in press.  
\(^{268}\) See Bietak 2013a: passim, and compare (table 8) to (table 18). The comparison is between the results of Kutschera et al. 2012 and those of Bronk Ramsey et al. 2010. The latter applied radiocarbon to samples of short-lived plants, as mentioned in note 139, and the offset between the two studies is over 100 years.
• the offset of the date of the Thera eruption between the radiocarbon results of Tell el-Dab'a and those from other regions remains. The reason this happens is unknown.

Otherwise, at least with regard to the Thera eruption and the Avaris frescoes, there is generally no major change between the 2000s' preliminary publications' of the radiocarbon Tell el-Dab'a results and the latest publication of the full set of results. The Tell el-Dab'a mission still supports a 'low' date for the eruption, and the frescoes are still placed in the Thutmoside period. But what is especially alarming is the fact that if the Tell el-Daba scheme does not agree with the latest radiocarbon and Egyptian chronology, it is almost impossible for researchers to agree over when, and to which ruler's reign, the Avaris frescoes date, and their synchronisation with EM chronology and other Aegean frescoes remains in limbo.

And this is not the end of the problem. Assuming that Khyan is placed in the thirteenth dynasty, instead of the fifteenth, and it was agreed that the context of the lid at Knossos is dated to MM III, then, to Höflmayer, a rearrangement of E-A

269 Kutschera et al. 2012, compared to e.g. the radiocarbon results of Bruins et al. 2009 from animal bones in the Palaikastro tsunami deposits, and Wild et al. 2010 for Aigina Kolonna. The offset is over a century. See also Bietak 2014: 279, fig. 2. Notice also that pumice from earlier contexts could correspond to earlier eruptions (e.g. in the Dodecanese or Sicilia (as observed from Cherubini et al. 2014, referencing Wiener 2010; Manning 2009; Friedrich et al. 2009; Heinemeier et al. 2009).

270 See e.g. Bietak et al. 2007 compared to Kutschera et al. 2012 and (table 7) compared to (table 8).

271 As suggested by Moeller and Marouard 2011: 100, 109.

272 The context (Neolithic – LM IIIA1) is not safe for chronological purposes according to Phillips 2008, vol. 2: 98 {163}. However, Evans (1901-1902) and MacDonald (2002) who re-excavated the part of the palace in which the lid was found, consider its context to be MM III.
chronological links could be suggested on the basis that MM III is dated after the start of the reign of Khyan, and if Khyan is dated c 1650/1600 BC, then MM III ended after 1650/1600. Nonetheless the present writer reserves her doubts about how much trust should be placed on the lid for chronological purposes: Evans stated that the lid was discovered in the 'burnt' stratum MM IIIA, but the author, who recently handled and photographed the lid, could not distinguish any traces of burning on it.

Moreover, if Khyan's lid is seen as a diplomatic gift sent from Khyan to the palace, then a special political relationship occurred between the late thirteenth dynasty and Knossos, unless the item was a 'souvenir' or market product that reached Crete long after Khyan. Also, if the late thirteenth dynasty is synchronised with the early fifteenth, there is a good chance that Knossos dealt with both the foreign and the indigenous rulers in Egypt during this time overlap and when both Khyan and Sobekhotep IV were in power.

On the debate in *Antiquity*, with respect to A-E chronological links:

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273 Felix Höflmayer brought this to the author's attention (personal communication via email: 11 August 2013).
274 Evans 1901-1902: 122
275 (pictures 40, 41). The 'reconstructed' lid was handled by the present writer at the end of 2009. An explanation: no traces of burning could be seen, unless of course, a) evidence of burning was lost during cleaning and restoration or, b) the item was not supposed to manifest evidence of 'burning', as it was not damaged by the cause of burning; or c) the item was unrelated to the 'burnt' stratum in which the lid was discovered.
276 For the lid and the debates over the date of its archaeological context and its diplomatic or non-diplomatic background see Phillips 2008, vol. 2: 98 {163}. See also [§ market] and (tables 49a-b).
277 Moeller and Marouard 2011: 109
278 i.e. while both rulers were in government (dates are fluid, but this is estimated c 1730-1710, according to Ryholt 1997: 229-231, 348-352).
I) According to Cherubini et al. 2014, a Thera eruption date near to the beginning of the New Kingdom agrees with archaeological evidence, such as Egyptian artefacts from the Aegean, Cypriot pottery in Egypt, and the discovery of Thera-associated pumice (in the Aegean, Egypt, Cyprus, the Near East, and the Anatolian coast) in archaeological contexts which date a century later than the dates proposed by Friedrich et al. 2006.

II) Friedrich et al. (2014) dismiss this statement replying that radiocarbon dates for stratum C/2 at Tell el-Dab'a 'correlate with the radiocarbon age of the eruption, as shown by Bruins (2010)'. In fact, Friedrich et al. (2014) argue that Kutchera et al. (2012) have observed an offset of about a century between radiocarbon dates and the archaeological dates in Tell el-Dab'a - an observation which, they believe, could support their suggested, 'high' date for the eruption. They also emphasise that the 'good' agreement between C$^{14}$ and the Egyptian historical chronology of Bronk Ramsey et al. (2010) is not valid, as Bronk Ramsey et al. do not provide results for the eighteenth and seventeenth century BC.

III) To MacGillivray (2014), in agreement with Wiener (2012; 2013), the eruption dates to the very beginning of the New Kingdom, on the basis of the following:

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279 Dumas 2010; Cherubini et al. 2014: 271.

280 Cherubini et al. 2014: 268, 271) emphasize that pumice from earlier contexts corresponds to other volcanic eruptions (e.g. in the Dodecanese) or that of the Lipari volcano (Wiener 2010; Manning 2009; Friedrich et al. 2009; Heinemeier et al. 2009). Such studies of pumice from outside the Aegean arc e.g. Sterba et al. 2009 (samples from Egypt and the Levant). See this chapter: 'Issues in Aegean chronology' for more studies of Thera-associated pumice.

281 They refer to the research of Bietak and Höflmayer 2007: 15 and Kutschera et al. 2012.

282 Friedrich et al. 2014: 284

283 ibid
• tephra and tsunami deposits found with LM IA pottery in the Aegean;
• Theran pumice from strata correlated with New Kingdom's Thutmoside period,
• correlation of Late Cypriot IA:2 pottery (found on Thera) with Thutmoside Egypt,
• and the mythical 'Deucalion's flood' set in the reign of Thutmose III.284

To conclude, after the consideration of the debate in *Antiquity* (in March 2014), the two main opposition parties remain: scientific versus historical dating and 'high' versus 'low' eruption date. It is the view of the author that the recent debate in *Antiquity* has the potential to polarise researchers even more. And even though the exact date of the eruption would indeed shape the nature of A-E relations, considering that this date is still problematic, A-E chronological links remain fluid for the time being.

Yet, the author finds that after the debate in *Antiquity*, the 'low' eruption date has gained some ground, since even its opponents accept that dendrochronological wiggle match of *olea europaea* can be challenging because of the difficulty of defining olive-tree rings.285 Additionally, the credibility of radiocarbon in this context is still seen with great scepticism, as radiocarbon results in the EM can hardly be synchronised.286 To the author, these two points signify that radiocarbon results are worthy of consideration, but

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284 MacGillivray 2009.
285 'The only issue that remains valid from the article by Cherubini et al. relates to their botanical field of expertise. It can be difficult to identify annual growth rings in olive trees, due to intra-annual wood density fluctuations' (Bruins and van der Plicht 2014: 286).
286 Even Bietak expresses some concerns over the radiocarbon results from Tell el-Dab'a (Bietak 2014: 279, discussing the results of Kutschera et al. 2012).
the likelihood of uncertainty should always be borne in mind. After all, with respect to synchronisms, it is easier to misinterpret a limited set of numerical results than a broad spectrum of archaeological evidence.

Lastly, regarding the recent work of Ritner and Moeller,\(^\text{287}\) it needs to be highlighted that their suggested date for the eruption is not new,\(^\text{288}\) and is simply a matter of textual interpretation.\(^\text{289}\) The contribution of the aftermath of the eruption to the fall of Avaris is hypothetical.\(^\text{290}\)

### 1.2.8 Chronological discrepancies: the size of the problem

Accurate dating is important. If it were possible to give a 'safe' date to historical events and archaeological records, it would be possible to determine the nature of A-E political, economic and cultural interactions. Nonetheless, as the author has already shown in the previous pages, the polyphony of opinions in the fields of Aegean and Egyptian chronology and the constantly-colliding chronological schemes of historical / archaeological and scientific dating complicate A-E (and EM) chronological interlinkages.\(^\text{291}\) How 'secure' these chronological links are, will be discussed in the

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288  Their suggested date is nearer to or in the reign of Ahmose I.

289  For similar / other interpretations of textual material see above, note 171. Also, the detailed work of Foster and Ritner 1996.

290  See note 1809. Bietak et al. 2007 date the frescoes in the Thutmoside Period and Tell el-Dab'a stratum C/3 (see chapter Five), but items such as Ahmose's axe [M1001] (pictures 93, 94) suggest that the Aegeanising artistic trend was already popular in the reign of Ahmose. In this case, 'Aegeanising' corresponds to artefacts that are remarkably similar to Aegean parallels, or are merely influenced by them.

291  A-E chronological links are seen in (tables 1, 7, 8, 14-16).
conclusions.292

Meanwhile, it is important to identify some of the most problematic areas:

1.2.8a Chronologically fluid key units of evidence in A-E relations

1. The impact of the chronologically problematic Thera eruption to the style development of Aegean frescoes inside and outside the Aegean.293

2. The debatable date of the Avaris frescoes and thus, the chronological synchronism or asynchronism of the Avaris frescoes with the Aegean processional scenes in Thebes.294

3. The Aegean processional scenes in Thebes, which are dated to the reigns of specific rulers, when the dates of rule of some of these rulers are still fluid (luckily, only by a few decades at the most).295

4. The 'palimpsest' of the Aegean attire in the tomb of Rekhmire and how this is linked chronologically to the hypothetical Mycenaean 'takeover' on Crete.296

5. The continuing discussion about the dates and contexts of exchanged items and 'artistic phenomena' and particularly the Aegean Aegyptiaca inscribed with royal prenominia of Egyptian rulers.297

292 See research question One: 'How secure are Aegean - Egyptian chronological interlinkages?'.
293 See the following pages and chapter Five. Also, this chapter: 'Analysis'.
294 See chapters Five and Six.
295 See chapter Six and (table 4, 5, 13).
296 See chapter Six: 'The scenes in space and time'.
297 e.g. [P163]. See chapters Three, Four and the Annex.
Secondly, it is crucial to explore why fluid dates create such a problem:

1.2.8b Difficulties in dealing with chronologically fluid data in A-E relations and their implications

1. Flexible dates in key units of evidence make the climax of A-E, political, economic and cultural transactions move backwards and forwards.

2. Depending on chronologically fluid data signifies that the political realities of Egypt and the Aegean (and those of other cultures) change according to preferred chronological schemes and inter-linkages. Therefore, political and economic contact between Egypt, the Aegean and third parties is also bound to change.

3. Chronologically fluid data can alter the identity of the parties between which negotiations and alliances are conducted, along with the specific nature of inter-cultural agreements.

4. The ethnic identity and cultural background of the parties in contact (and the form of this contact) are also subject to change depending on preferred chronological synchronisms.

298 As seen in (tables 28-35, 40-43) the political and economic situation changes over time with regard to Crete and Egypt. The political and economic realities of other cultures (e.g. the Cypriots - See (tables 36-39)) could also affect the political and economic relationship between the Aegean and Egypt, and EM relations in general. The latter is also related to the sense of 'equilibrium' in GT, as seen in chapter Seven: 'Searching for equilibria in Aegean - Egyptian relations'.

299 E.g. some questions are: was there a Cretan - Hyksos alliance, or a Cretan - Egyptian alliance? And what was the exact nature (e.g. terms) of this alliance? What role, if any, did Greek Mainlanders or the Cypriots play, and how could these cultures politically or economically affect relations between Crete and Egypt (or Crete and the Hyksos?) and other EM contact, negotiations and alliances? Highlighting certain individuals is equally risky, for the same reasons: e.g. did the Cretans deal with a certain Hyksos ruler? With Ahmose I? Or with Thutmose III?

300 Some of the questions over the identity of the parties are: Hyksos or eighteenth dynasty indigenous Egyptian rulers? Minoans, or Mycenaeans? And what about the cultural and ethnic identity of the
5. These discrepancies in A-E chronological links complicate the study of the development of artistic and stylistic influences between the Aegean and Egypt.\textsuperscript{301}

1.2.9 Analysis

As a case in point the author will now discuss some implications arising in A-E relations due to certain chronologically fluid key units of evidence:

1) The progress, nature, direction and protagonists of A-E relations depend on the controversial date of LMIA during which Thera erupted.

This eruption most likely created movement of Aegean populations and brought about the establishment of alliances within the Aegean and with regions abroad.\textsuperscript{302} But whether a 'high' or 'low' date is accepted, whether Thera erupted when the Hyksos were in power in the Delta or the Thebans, it is almost certain that, at least temporarily, A-E contact was disturbed, and the more a region was affected, the more its foreign economic transactions came to a standstill.

Additionally, the Thera eruption - and when exactly this happened - had an impact on the development of Aegean wall-painting in the Aegean and abroad.

Paintings were made on Thera before eruption in LC I, and Minoan frescoes third parties? Who contacted whom, and how was this done? How did the transition of culture operate, when, and to what direction?\textsuperscript{301} e.g. how did inter-influences in the EM operate with respect to wall-painting style, or the transition of cultural images such as the 'cat image'? (in the Annex). The following pages ('Analysis') attempt to answer some of these questions.

\textsuperscript{302} Chapters Six and Seven, with examples.
were produced in Neo-palatial Crete from MM IIIB onwards.\textsuperscript{303} Bietak, who argues that the Avaris frescoes are close to both Theran painting and the Knossos toreador scenes, dates the eruption to the late reign of Thutmose III. Effectively, the stratigraphy of Avaris demonstrates that Thera could have erupted after the Avaris frescoes were made.\textsuperscript{304} But what would a high date for this event (c. 1627-1600 BC / Hyksos Period in Egypt) mean in terms of our understanding of the development of style of wall-paintings and ultimately, the date and style of the Avaris frescoes?

Many extra-Aegean frescoes come from problematic contexts. As a result, their date and order (what follows what) is seriously disputed.\textsuperscript{305} However, their typology, iconography and style could, in theory, provide chronological clues.

At first thought, one would assume that the closer a set of frescoes dates to the eruption, the closer these frescoes would appear stylistically to Theran or at least Minoan painting.\textsuperscript{306} The frescoes at Mari and Qatna are Minoanising / Aegeanising (or better, Aegean influenced) but not Aegean, in contrast to those in Alalakh and Kabri that are very close to Minoan and Theran examples. The Kabri and Avaris frescoes, especially, are very close to Theran painting and

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\textsuperscript{303} Bietak 2007c: 67
\textsuperscript{304} Bietak 2004: 214 and (table 7). Bietak's latest preference (2007) in the date of the Avaris frescoes is the co-regency of Hatshepsut and Thutmose III / early Thutmose III, although the possibility that these paintings date to the late reign of Thutmose III or even Amenhotep II is left open (Bietak 2007a: 27, 39). See chapter Five for details.
\textsuperscript{305} See chapter Five: 'Aegean and Aegeanising frescoes outside the Aegean'.
\textsuperscript{306} see (tables 12, 51).
surely in theory, this should not be coincidental in terms of chronology and style.\textsuperscript{307} The Avaris frescoes do bear similarities with Theran frescoes but they also bear similarities with frescoes on Crete, and their Aegean comparanda date from LM IA-LM IIIA, which suggests that a 'low' date for the eruption could be possible.\textsuperscript{308} Bietak et al (2007) have associated these frescoes with (MM IIIB-) LM IA(-B) examples, with an emphasis to LM IA,\textsuperscript{309} whereas others associate them with LM II-LM IIIA.\textsuperscript{310} An LM IB association of the Avaris frescoes would be agreeable with the 'high' dates of LM IB, but not with the Tell el Dab'a chronological scheme.\textsuperscript{311} But how safe is using artistic style as a dating tool? Artistic style and iconography are, by definition, 'constant, recurring, coherent'.\textsuperscript{312} Aegean fresco styles, within the Aegean and abroad followed a similar path, they could imitate older artistic traditions related or unrelated to the 'Theran school', or evolve in new stylistic forms which were distant to Thera.\textsuperscript{313} Moreover, the eruption would not entirely bring to an end the stylistic development of the Aegean frescoes, whether its date was 'high' or 'low', as Theran-style painters were beyond Thera, pro- and post-eruption.\textsuperscript{314}

A look at \textbf{(table 12)} suggests that even though there are significant

\textsuperscript{307} See chapter Five: 'style and technique'.
\textsuperscript{308} Bietak 2007c: 67, Shaw 2009; Younger 2009, Morgan 2010a,b; Marinatos 2010; Aslanidou 2012; see Manning and Kromer 2011: 432 for objections.
\textsuperscript{309} Bietak 2007c: 67, 85
\textsuperscript{310} e.g. Shaw 2009; Younger 2009
\textsuperscript{311} Manning and Kromer 2011: 432
\textsuperscript{312} Gilbert, 2002: 17
\textsuperscript{313} Bootolis 2000: 849-850
\textsuperscript{314} Bootolis 2000; Shaw 2009
disagreements about the date of the Thera eruption and the date of the various frescoes, certain frescoes could be contemporary or almost contemporary between them and / or with the 'high' or 'low' date for the Thera eruption. For instance, the Alalakh and Kabri frescoes could be almost contemporary if they fit the high date of the Thera eruption, and as such, they should feature some artistic similarities between them, and with the contemporary Aegean frescoes. These frescoes would even be almost contemporary with the Avaris frescoes, if the Avaris frescoes were dated to the late Hyksos Period.  

It is also important to follow how style may have changed after the eruption: for instance, could the eruption be the cause that a style appeared more Minoan than Theran? If this is the case, in the author's mind, a high date for the eruption would suggest that extra-Aegean frescoes that are dated much later than c 1600 BC, would indeed appear more Minoan than Theran, at least with respect to their selected iconography and motifs, unless they followed an older, recurrent tradition - a 'nostalgic' artistic fashion. For example, if Thera erupted in the late 17th century, then, since the Avaris frescoes have similarities to Aegean comparanda dating LM IA-LM IIIA,  

a) either they should date to the late Hyksos Period, or  
b) if they dated to the Thutmoside Period, they followed a much older Minoan / Theran / Aegean artistic tradition that was well established in the EM, or a 'Theran-like' style that went out of fashion but reappeared, possibly mixed with  

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315 For the discussion of the date of these frescoes see chapter Five.  
other regional styles. It is also logical to assume that a 'high' date for the eruption of Thera would mean that the elements and characteristics of the 'Theran school' were mostly developed and shaped after the eruption took place, away from Thera, by the continuers of this artistic tradition. Moreover, any stylistic similarities of the Avaris frescoes with wall-paintings on the Mainland perplex things even further.

2) The Avaris frescoes are one of the strongest pieces of evidence to demonstrate when the zenith of A-E relations may have started, while they also show that at least a small number of Aegeans were present at Avaris. But since the dating of these frescoes ranges from the Late Hyksos Period to the early eighteenth dynasty and to the Thutmoside Period, political, economic and cultural implications in A-E relations would also vary. In particular, what would change would be the nature and membership of any A-E alliances and the Egyptian and Aegean foreign affairs with third parties. Yet, as previously stated, investigating such alliances is not an easy task since this period is historically complex in the Nile Delta – and distinguishing between Egyptians and Hyksos might even prove problematic.

317 See also (tables 49a,b) for an understanding of the time required for knowledge and products to be transferred to a new environment.
318 For instance, see the examples of wall-painting parallels (Avaris – Greek Mainland) provided in Marinatos 2010a,b, Morgan 2010a and Aslanidou 2012. See also chapter Five: 'style and technique'.
319 See chapter Five, particularly 'A suggested strategy', and chapter Seven.
320 See (table 51).
321 See the Introduction: 'Some clarifications on terminology'.
Assuming that the frescoes date to the Late Hyksos Period and were produced as a diplomatic gift (and not by travelling artisans), they could have cemented a Hyksos-Cretan alliance of political or economic nature. Considering that the Hyksos had connections with Palestine, a Minoan-Palestinian alliance might also operate; alternatively, contact between the Minoans and the Hyksos was stimulated by Hyksos-friendly third parties in the Levant. Note that, impediments aside, it is not unlikely that the Minoans were dealing with the Avarians while also with regional rulers in Middle and Upper Egypt; there is no evidence however that the Aegean islands played an important role in an A-E alliance at the time.

But international diplomacy and trade require foreign officials and trade representatives abroad; yet, a Minoan presence at Avaris in the Late Hyksos Period is problematic. A Hyksos date for the frescoes would signify that the

322 Chapter Five: 'Who painted the Avaris frescoes and why were these frescoes painted? A cornucopia of ideas'.
323 For the discussion of a Cretan-Hyksos alliance see chapter Seven. The presence of Aegean frescoes in the Levant might justify this theory (see chapter Five). Overall, the political situation on Crete and the foreign relations of the island in LM IA could encourage such a diplomatic opening and some Aegyptiaca reaching Crete at the time could be the result of these relations (note that the synchronism between the very early LM IA and the Late Hyksos Period is according to traditional chronology, and in particular, the chronology used by Phillips 2008 (table 14)). Moreover, with certain limitations, a possible Hyksos - Knossos political relationship could in theory be supported by the discovery of Khyan's lid at Knossos. This is valid considering that Khyan is associated with the fifteenth dynasty (the late thirteenth dynasty and the early fifteenth dynasty overlap according to Moeller and Marouard 2011: passim). Yet, it only applies if the lid of Khyan is seen as a diplomatic gift.
324 Even though evidence for diplomatic contact with Middle and Upper Egypt is much less compared to evidence for diplomatic contact with the Delta, this is possible, since Upper and Lower Egypt overall remained in contact throughout the Second Intermediate Period, therefore the possibility of diplomatic contact between Crete and Upper Egypt remained open (see e.g. Moeller and Marouard 2011: passim).
325 Unless it is assumed that these frescoes were made for an Aegean 'princess' living in Avaris, or some other Aegean individual with duties and responsibilities in the citadel. See chapter Seven: ' Possible Aegean - Hyksos / Aegean - Egyptian state-to-state negotiations', ' Possible Aegean - Egyptian
peak of interactions between the Aegeans and the land of Egypt had started long before Aegeans were seen in processional scenes in Thebes. A Hyksos-Cretan alliance could have been replaced by a Theban-Cretan alliance after the fall of Avaris. In fact, an early eighteenth dynasty date for the frescoes – when the Thebans were in Avaris, has been suggested by Bietak. Bietak has been sceptical about the association of the frescoes with Thutmose I as there is no clear evidence that this ruler was ever in Avaris, but the latter does not imply that this ruler had no connections with the Aegean. It simply means that such connections did not involve the making of the Avaris frescoes.

Then comes another view, favoured by Bietak, that the frescoes date to the late eighteenth dynasty co-regency of Hatshepsut / Thutmose III. In fact, compared to the previous periods, from texts to archaeological finds, there is much more evidence to support an A-E political and economic alliance at this time. Most importantly, if the Avaris frescoes date to the co-regency of Hatshepsut / Thutmose III, then they are contemporary to some of the Aegean processional scenes (tombs of Senenmut, Intef and possibly Puimre and Useramun) and the Aegeanising ceiling decorations in the tomb of Senenmut TT 71. If palace-

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326 (table 51).
327 Bietak 2000a: 190. Note that Brysbaert 2007 (who works with Bietak) does not dismiss this date. The Aegean islands may be mentioned in {10} dated to the reign of this ruler.
328 Bietak 2007a: 39. See (tables 4, 9, 51) for chronology and suggested dates for these rulers.
329 For a discussion of the evidence see chapter Seven: ‘Possible Aegean - Egyptian alliances and treaties’, ‘The theory of a dynastic marriage in association with the Minoan presence in Egypt’.
330 For the dates of these tombs see (table 53). In this case, the paintings are called ‘Aegeanising’
sent Aegeans are seen bringing gifts to the Egyptian state, while, *at the same time*, Aegean frescoes are painted at Avaris as a diplomatic gift, then an A-E alliance (political, economic, military or other), would have involved a wider geographical area, not only in the Aegean but also in Egypt.\footnote{In the Aegean, apart from Knossos, the islands and possibly the Peloponnese (and maybe Aegeans abroad, even in the Delta)\footnote{See chapter Seven: 'On the razor's edge: Aegeans in Egypt and Egyptians in the Aegean'}. are now (late eighteenth dynasty) playing a role in A-E political and economic interactions.} In the Aegean, Aegeans were there and negotiated with the local administration in north and south: the Avaris frescoes and the Aegean processional scenes. It clearly appears that the Aegeans had spread their diplomatic activities and dealt with regional leaders in both Lower and Upper Egypt, encouraged by a more centralised, 'Aegean-friendly' Egyptian administration.

Yet, the question is: who exactly was politically dealing with whom?

The answer is down to chronology. Surely, if the Avaris frescoes are a diplomatic gift dated to Hatshepsut / Thutmose III,\footnote{Chapter Five.} since they appear Knossian and Theran in style,\footnote{It is undeniable that the Avaris frescoes are Minoan-oriented (Bietak et al. 2007; Marinatos 2010b: 82).} it was the Minoans, and possibly along with them some
Aegean Islanders associated with Crete, who were dealing with Avaris; while, *at the same time*, the Minoans and some Aegean Islanders (and possibly the Peloponnese and some Aegeans in the Delta) were politically and economically dealing with Thebes – as seen in the early Aegean processional scenes.\footnote{336} Also, in theory, if the co-regency of Hatshepsut / Thutmose III is linked to the end of the Neo-palatial Period in Crete,\footnote{337} the members of a potential A-E alliance were the Minoans and the Thebans, since, at that time, administration was Minoan at Knossos and Theban (Egyptian) at Avaris and Thebes.

Last, if the Avaris frescoes date to the early reign of Thutmose III – before his regnal year 28 but after his co-regency with Hatshepsut had ended, such a date would be in agreement with the Aegean processional scenes in the tomb of Useramun but political implications would change.\footnote{338} Thutmose III followed a particular expansionary agenda in Canaan and Syria, and he could have benefited from an Aegean alliance.\footnote{339} Again, synchronisms with the Aegean are problematic.\footnote{340}

\footnote{336 See chapter Seven: 'On the razor's edge: Aegeans in Egypt and Egyptians in the Aegean'.}
\footnote{337 Hatshepsut / Thutmose III are linked to the end of Neo-palatial according to 'low' chronology but Final Palatial according to 'high' chronology. This Egyptian co-regency corresponds to LM IB (low chronology) or LM II (high chronology) or the very end of LM IA, transitional LM IA / LM IB according to MacGillivray 2009. Manning 2009 associates Thutmose III with late LM IB (Monopalatial Crete of Knossos and possibly Chania) and LM II. See (tables 1, 4, 9, 14-16, 19) for chronological synchronisms).}
\footnote{338 Bietak 2007a: 39}
\footnote{339 See (tables 28, 29, 33) and chapter Seven: 'Possible Aegean - Egyptian alliances and treaties', 'The theory of a dynastic marriage in association with the Minoan presence in Egypt'.}
\footnote{340 See this chapter 'Issues in Aegean - Egyptian chronological links', 'The Tell el-Dab'a radiocarbon results and Aegean - Egyptian chronological links' and 'An update in chronology'.}

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But did Thutmose III, that early in his sole reign, deal with a Minoan or Mycenaean administration on Crete? The date of the hypothetical passing of power on Crete, from Minoans to Mycenaeans, alters the scenario of the key-players in A-E interactions, but the Avaris frescoes (if linked to his early reign) are Minoan, and the change of Aegean attire at Rekhmire corresponds to the late reign of this Pharaoh.\textsuperscript{341} To conclude, at least in his early sole reign, Thutmose III was dealing with the Minoans on Crete, and - possibly - the ruler interacted with the Cretan Mycenaeans late in his reign,\textsuperscript{342} or, even, it was his successors who did so.\textsuperscript{343}

Since the possibility that the frescoes date as late as the final years of the reign of Thutmose III and even Amenhotep II is left open, with strict limitations, the later this date, the more likely Cretan Mycenaeans were dealing with Egypt.\textsuperscript{344} Such a late date would bring the frescoes in line with the Aegean processional scenes of Mencheperrreseneb, Rekhmire and Amenemhab and one step closer to the prime of A-E relations in the reign of Amenhotep III, who had political relations with the Mycenaeans.\textsuperscript{345}

\textsuperscript{341} See chapter Six: 'The scenes in space and time'.
\textsuperscript{342} The latter, again, depends on synchronisms. MacGillivray (2009) sees an Egyptian interaction with the Mycenaean Cretans in the Aegean processional scenes in the tomb of Rekhmire, which dates to the late reign of Thutmose III (see chapter Six).
\textsuperscript{343} See e.g. Cline and Stannis 2011 and the contact of Amenhotep III with Crete and Mainland Greece (e.g. \textsuperscript{23}).
\textsuperscript{344} This date is left open by Bietak (2007a: 27) but the latter only applies if the change of attire of the Aegean bearers in the tomb of Rekhmire and the later Aegean processional scenes is linked to the 'hypothetical Mycenaean takeover' (e.g. see MacGillivray 2009: 164-169).
\textsuperscript{345} Cline and Stannis 2011
If the Avaris frescoes, in synchronisation with the early Aegean processional scenes, date to the early or mid eighteenth dynasty, it is obvious that the beginning of the high-point of A-E relations dates then, and not earlier, i.e. during the Hyksos Period. Certainly, the textual and archaeological evidence also encourages an eighteenth dynasty date as the zenith of A-E relations. But an eighteenth dynasty date for the frescoes does not dismiss the possibility that the Aegeans dealt with the Egyptianised Hyksos first, and then with Thebes in the eighteenth dynasty. There may have been certain agreements with the Hyksos and other agreements with the Thebans, to the point that the interests of the Aegeans, Hyksos and Thebans often collided.

If the Avaris frescoes are linked to a dynastic marriage, the date of these paintings and the preference to one chronological scheme or another would not necessarily alter the hypothetical scenario of a dynastic marriage but rather its protagonists: the identity of the ruler who might have taken an Aegean princess, and the political reasoning behind the dynastic marriage. Additionally, the role of the Minoan palaces in contrast to that of extra-palatial individuals is also dependent on the date of the Avaris frescoes. A later date for the frescoes, and their synchronisation with the early Aegean processional scenes, might suggest more extra-palatial activity in A-E interactions. Lastly, the economic implications of the different suggested dates for the Avaris frescoes are no less

346 See chapter Seven: ‘The theory of a dynastic marriage in association with the Minoan presence in Egypt’.
347 See (tables 28, 35) chapter Seven.
straightforward than the political ones: the date of these frescoes and their synchronisation or not with the Aegean processional scenes would determine who accumulated profit – and how they did so.

3) In A-E relations, researchers are often baffled with regard to the exact date of exchanged artefacts, such as the date of Egyptian items unearthed on Crete and that of Aegean items unearthed in Egypt.\textsuperscript{348} In many cases, there are disagreements about an item's archaeological context.\textsuperscript{349} Similarly, often, the date span of exchanged artistic images and trends is also under dispute.\textsuperscript{350} The dating of key units of material culture is important, but the likely consequences of the various competing dates suggested for artefacts and their context are mainly cultural and economic. Cultural, because the exchange of culture can be measured in A-E interactions, because portable objects (originals or imitations) travelling between the Aegean and Egypt, were bearers of culture. And economic, because such items were often products of trade, and studying the market can enlighten A-E economic interactions.

The political implications of the different dates suggested for portable items are usually indirect, in the sense that economic transactions often correspond to political negotiations, and as it happens, the peak of A-E economic relations is

\textsuperscript{348} See the Annex with examples.
\textsuperscript{349} See e.g. [P163].
\textsuperscript{350} (\textit{tables 49a-d}).
synchronised to the peak of A-E political relations. Certain artefacts could cast light on A-E political contact, and their accurate dating is more desirable than that of other items. Yet, the political background of exchanged items should not be taken for granted.

1.2.10 Defining the chronological limits of this thesis: synchronisms

The various chronological debates call for a definition of the chronological limits of this thesis. The upper limit (c 1900) does not create as many problems as the lower one (c 1400). Numbers are approximate; therefore referring to chronological periods instead of specific dates would be more reasonable instead.

In both 'high' and 'low' Aegean chronological scheme, the upper limit corresponds to transitional MM IA / MM IB (first half of Proto-palatial) and the mid twelfth dynasty (mid MK). Specifically, concerning Egyptian chronology, this limit would be synchronised with the reign of Amenemhat II.

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351 As the Aegean processional scenes in Thebes manifest (in chapter Six).
352 See e.g. Khyan's lid [P163].
353 As seen in [P163], [P114]. See the Annex: items inscribed with names and titles of Egyptian individuals.
354 The author chose to examine A-E relations within these chronological limits as she felt that these 500 years (1900 - 1400 BC), and the versatile historical events associated with them, were appropriate to present the diversity and complexity of A-E and EM relations from the WST (and later, from the GT) point of view.
355 Starting point of research according to the title of the thesis: c 1900 BC (tables 14, 19, 20) and Shelmerdine 2008: 4, fig. I.I.
356 Again, starting point of research: c 1900: Amenemhat II: early-mid twelfth dynasty (table 17a, 18), Shaw 2003, Bronk Ramsey et al. 2010.
The objective of this thesis is to focus on material up to the reign of Thutmose IV.\textsuperscript{357} In Aegean 'low', the terminal limit of this research is synchronised with late LM II whereas in Aegean 'high' it is synchronised with late LM IIIA1.\textsuperscript{358} In the traditional scheme of A-E chronological interlinkages, this limit corresponds to the very end of LM II, transitional LM II / LM IIIA1 (early Final Palatial) and the mid to late eighteenth dynasty (very early NK).\textsuperscript{359} Depending on chronological preferences, the terminal limit ranges from the late / end of reign of Amenhotep II\textsuperscript{360} to even the early reign of Amenhotep III.\textsuperscript{361} But if in revised A-E chronological links the early reign of Amenhotep III dates to c 1400 BC, then the terminal limit of this thesis covers the Egyptian chronological synchronisms not only with the LM II, but also with LM IIIA1 early(-mid).\textsuperscript{362} The same occurs when in Aegean 'high' chronology LM IIIA1 starts at c 1430 BC instead of starting in 1390 as in 'low' chronology.\textsuperscript{363}

Since A-E chronological synchronisms are so problematic and in revised chronology the lower limit is synchronised with early(-mid) LM IIIA1, the author cannot avoid but study the foreign interactions of early Final Palatial Crete.\textsuperscript{364} Even if the traditional scheme of A-E chronological schemes is accepted,\textsuperscript{365} a comparative study of exotica

\textsuperscript{357} For the various suggested dates for this ruler see (tables 4, 5, 13, 17d).
\textsuperscript{358} Lower / terminal chronological limit of research: c 1400 BC. Shelmerdine 2008: 5, fig. I.2. (table by Dan Davis).
\textsuperscript{359} (table 14), Phillips 2008
\textsuperscript{360} Again, the terminal limit is c 1400 BC and this becomes problematic because of the 'fluid' reigns of Egyptian rulers Amenhotep II and Amenhotep III (tables 5, 13), Krauss and Warburton 2009, Shaw 2003, Helck 1992
\textsuperscript{361} (table 16), MacGillivray 2009
\textsuperscript{362} (table 16), MacGillivray 2009
\textsuperscript{363} (table 9), Rehak and Younger 2001 contra Warren and Hankey 1989. See also Shelmerdine 2008: 5, fig. I.2.
\textsuperscript{364} Shelmerdine 2008: 5, fig. I.2.
\textsuperscript{365} (table 14), Phillips 2008
found in early Final Palatial contexts or dated to early-mid LM IIIA1 would assist discussion and not do any harm. However, this thesis will not 'stand' on chronological aspects and linkages as seen through the exchange of commodities and other Egyptian-Aegean interactions at artistic, social, economic and political levels.366

1.2.11 The chronological scheme preferred in this thesis

With these matters in mind, as this work progresses, when required, the author will become more specific about certain chronological issues. Finally, after the detailed examination of the evidence in the following chapters, the conclusions will re-examine the current credibility of A-E chronological links.367

Meanwhile, the latest publications have shown that the individual issues of Egyptian and Aegean chronology (and thus, their interlinkages) still remain under vigorous debate.368 Moreover, the author has already shown how the various suggested chronological schemes, and the 'fluid' dates for key-units of evidence, would affect the study of A-E relations.369 Luckily, problematic chronology, and the choice of one chronological scheme or the other, does not decrease the value of the application of WST and GT to A-E relations. With these in mind, the author has chosen to adopt the

366 e.g. archaeological finds from problematic archaeological contexts such as [P163], the chronological issues in the transformation of the Egyptian standing hippopotamus deity to the Minoan Daemon (in the Annex), the long debate over the date of the Avaris frescoes (chapter Five), the debate over exact dates of the Aegean processional scenes in Thebes (chapter Six), etc. Albeit important, a thorough discussion of chronology needs to be put aside to await further investigation, when, hopefully, A-E chronological links become less 'fragile'.
367 See research question One in the conclusions.
368 See this chapter: 'An update in chronology'.
369 See this chapter: 'Chronological discrepancies: the size of the problem', 'Difficulties with dealing with chronologically fluid data in A-E relations, and 'Analysis'.

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more 'traditional' scheme, as followed in the catalogue of Phillips (2008).\textsuperscript{370} The first reason is practical: a number of Egyptian and Egyptianising artefacts, discovered on Crete and the Archipelago, will be taken into account. The author's source of information about most of these artefacts (especially the ones she has not handled herself) is primarily Phillips' 2008 publication, which is the most up-to-date finds' catalogue in the field. It would be unrealistic to work with any other chronological chart, from any other publication, and having to 'translate' the date of the artefacts into other chronological schemes. Moreover, as the author has pointed out earlier,\textsuperscript{371} after consulting the most recent publications,\textsuperscript{372} she is convinced that radiocarbon results are not error-free and thus, should be evaluated with caution. This does not necessarily imply that the author will leave out any other chronological schemes altogether. Special references to various suggested dates will accompany the historic-archaeological material. Ultimately, since the chronological debate may not be settled in the next decade or so, it is a common wish that future investigation and forthcoming publications allow researchers to consent to a firmer A-E chronological scheme. If this happens, the author is happy to update her chronological information in future publications.

\textsuperscript{370} (table 14)
\textsuperscript{371} See above: 'What do the latest publications (from 2010 onwards) suggest about Aegean - Egyptian chronological links?'
\textsuperscript{372} e.g. the debate in 'Antiquity' journal.
CHAPTER TWO

WORLD SYSTEM/S THEORY, WORLD SYSTEM HISTORY, GAME THEORY AND ASPECTS OF ECONOMY AND POLITICS

Archaeological evidence, partial and ambiguous as it always is, has to be fitted within some framework of interpretation so it has meaning within a larger picture. (A. and S. Sherratt 1998: 330)

This chapter is designed as a fundamental starting point for the multidisciplinary study of continuity and change in A-E relations as part of the EM world system; as seen and examined, not from a monocular point of view, but from a world-wide perspective. The author's intention is to discuss WS mechanisms, compare WST to GT, and later apply these theories to her individual field of research.

The concept of WST is not new in archaeological studies. The attempt to apply the centre-periphery conceptual framework to a wider geographical, social and economic context by examining the role of complex societies in the past has been the object of

373 For the limits of the Mediterranean world system see the following pages: 'World System': 'the World Systems approach'.
374 The two theories will be applied to the same sets of data, in chapters Four to Seven.
research from the nineties onwards. Yet, what is pioneering in the field is the introduction of GT as an efficient methodological tool that can elicit important information about the function of A-E interactions.

What role did the Bronze Age Aegean and Egypt play in the so-called 'world system' or 'game'? How did these two regions interact with each another and what was the contribution of third-party roles in this relationship? The work in this chapter is predicated on the belief that A-E interactions ought to be examined under the parameters of centre-periphery and player-to-player relations.

2.1 Defining 'world system/s'

2.1.1 The world system/s approach

Technically speaking, 'World System(s) Theory' should not be called 'a theory' but an 'approach' to social analysis. Derived from Neo-Marxist Literature, it can also be seen as an 'imperialistic' view of world affairs and international relations. The WS approach is a product of diligent investigation: it is based in part on the works of Amin, Arrighi, Frank, Kristiansen and Wallerstein with major contributions by Chase-Dunn, Wilkinson

375 Various articles and books were written on this basis. Among them, the author should mention Champion's edition (1989) titled 'Centre and Periphery: Comparative Studies in Archaeology, Chase-Dunn and Hall's edition (1991), 'Core / Periphery Relations in Precapitalist Worlds', Andrew Sherratt's work, 'What would a Bronze Age System look like?' (1992) and 'Core, Periphery and Margin: Perspectives on the Bronze Age' (1994). Similar studies were conceived in the early twenty first century, such us the edition of Denemark et al. (2000) of World System History. Note that in this thesis the word 'periphery' is often generalised to cover any WS zone but the core.

376 See the end of chapters Four to Seven.

377 [§ imperialism]. Frank and Gills 1993: viii
The term is open to discussion. Major questions have arisen through the years. What is a world system and what constitutes it? What are the characteristics of a world system? Is it always the same, or can it undergo fundamental changes over time? Are there numerous 'world systems', and if so, how are these systems linked?379

The definition of 'world system' is quite complex. Wallerstein sees the world system as a set of mechanisms which redistribute resources from 'periphery' to 'core'. The core is the developed part of the world whereas the periphery is underdeveloped; and the 'market' is the means by which the core exploits the periphery.380

In other words, every world system possesses a wealthy and advanced core which is strongly or loosely connected to one or more 'semi-peripheries' (these are less developed than the core, due to different causes every time). 'Semi-peripheries' are also linked to


379 In the following paragraphs the author will provide a brief collection of selective technical terms, introduced in the work of various researchers and extended from her personal experience, on the grounds of how she understands the phenomenon. Between the 1st and 4th April 2008 the author had the chance to attend the conference 'What would a Bronze Age world system look like? World systems approaches to Europe and western Asia 4th to 1st millennia BC', organised by the Department of Archaeology, University of Sheffield. During the conference the author established a personal point of view of the world system perspective, elements of which will be cited here with regard to A-E interactions.

380 He also defines his concurrent world system as follows: ‘It has the characteristics of an organism, in that it has a life-span over which its characteristics change in some respects and remain stable in others. One can define its structures as being at different times strong or weak in terms of the internal logic of its functioning.’ (Wallerstein 1974: 347-357).
even weaker zones than themselves, i.e. 'peripheries', which in turn are linked to the so-called 'hinterland', and the 'margin'. The hinterland contains natural resources and human labour which are, to some extent, controlled by the centre-periphery. However, the peoples of the hinterland are not fully subordinate to the core, at least in terms of surplus extraction.

All of the above can expand or contract in time, taking different political, economic and cultural forms and modes of accumulation. Core - periphery hierarchy exists when a society dominates or exploits another and, often, one or more core-regions compete over a contested periphery.

Furthermore, 'hegemony' is the privileged region of the world system. When the ruling classes of this particular zone are able to accumulate surplus more effectively; and concentrate accumulation at the expense of other zones; then the zone becomes a 'super-hegemony'. The term 'oikumene', given by Frank, Gills, Wilkinson and others, describes the globalisation of world economy. Oikumene is delineated as a domain

Frank and Gills 2000: 9-10. The term semi-peripheries is also discussed by Chase-Dunn and Hall. Chase-Dunn and Hall (2000: 92) argue that semi-peripheries a) can mix both core and peripheral forms of organisation b) may be spatially situated between core and periphery areas c) can be geographically situated between two or more competition core areas d) can act as the focus of activities or as an intermediate between the core/s and periphery/ies. The term 'margin' indicates the edge of the system.

Gills and Frank 1993: 94-95.


Wilkinson 2000: 62, Chase-Dunn and Hall 2000: 91-92, 108. Chase-Dunn and Hall (2000: 94-94) also provide the term 'incorporation' to refer to cases where a small world system is engulfed by a large one.

Gills and Frank 1993: 103

[§ world economy].
internally knit by a network of trade routes. Oikumenae may, or may not contain civilisations. They can also be trade-linked but not always politically bonded. However there is a parallelism between the tendency of oikumenae to expand or contract and the flourishing or decline of diplomatic-political-military structures.387

Modelski sees the phenomenon via a more human-focused perspective. He states that a world system is a social organisation of human species viewed as one population throughout various historical periods of progress or decline. The term implies that such a population, either disorganised or more-or-less organised, has in common one or more basic institutions; i.e. cities, writing, states or state systems, technologies or trading networks.388

To link this terminology with the topic of this thesis; essentially, Egypt and the Aegean are parts of the same Bronze Age world system, and, in effect, parts of the same world trade system and oikumene. In other words, they belong to the Mediterranean world system, which is part of the 'single', global world system.389 The Mediterranean world system comprises the lands around, and surrounded by, the Mediterranean Sea. The Central and Eastern part of this system interacts with the Near East.390 Core-periphery

387 For the characteristics of oikumene see Wilkinson 1993: 239-24.
389 The Mediterranean world system is part of the global world system, the limits of which are provided in this chapter: see below 'A five thousand year single world system?'.
390 (maps Ia,b, II). It is worth stating that in various modern academic works there are discrepancies over the limits of the Bronze Age Mediterranean (especially the limits of Eastern, Central and Western Mediterranean), Bronze Age Near East and the geographical limits of the 'Levant'. The maps (maps Ia,b, II) demonstrate the geographical limits of these world systems. For the geographical limits of
relations apply among the various parts of any world system, and, therefore, core-periphery relations are employed between the Aegean and Egypt. According to Frank, world systems are influenced by economic, political and cultural circumstances, or, even, by peoples and their political institutions and leaders. Natural disasters and weather phenomena can also affect the world system *per se* and even prove disastrous for its economic and political fortunes. As Andrew Sherratt has argued, the relationship between core and periphery is associated with a series of real time interactions where changes in one partner can actively affect the fortunes of another. To the author, this is exactly what happened in the case of the Mediterranean world system when the Thera eruption, with its tremendous effects, disrupted the socio-political and economic-commercial balance of the system, turning cores into peripheries and peripheries into cores.

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391 Even so, regions that historically functioned as cores and others that functioned as the periphery, will be discussed after the examination of the evidence. The details on A-E core-periphery relations will be discussed as this thesis progresses, and in the Conclusions: 'Research question Eight'. For EM interrelations see also **(tables 24, 29, 34, 36, 38a-c, 39)**. In the following chapters, through the discussion of the evidence, the thesis will get to examine what role Egypt and the Aegean played in the EM Bronze Age world system; i.e. which between the two functioned as a core (or even as hegemony) and which acted as a periphery, during the time limits that this thesis examines. Frank 1993: 383. See also this chapter: 'A five thousand year single world system?'. Sherratt A. 2000: 123

394 **(maps 1a,b, II)** How this happened will be discussed in the following chapters; see e.g. the discussion of the A-E political scenario of MacGillivray in chapter Six: 'Aegean processional scenes in Thebes: Historical reality and authenticity'. For the Thera volcanic eruption see above Chapter One, 'Chronological considerations' and 'Analysis'.

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World-systems are seen by Andrew Sherratt as economic and commercial networks.396 Because of this comparison, recently, WST was been briefly compared to Network Theory, a computer-inspired model.397 The analytical WS terminology provided by Chase-Dunn also focuses on networks, and their political and economic relations.398 Moreover, Chase-Dunn highlights the importance of trade, alliances, warfare, migration and information flows.399

In the author's mind, these views can fully illustrate the historical reality of any world system and the methods through which parts of this system interact with each other (economic, trade and communication networks, diplomacy, alliances, warfare, migration, to name any). Similar aspects and methods of interaction are seen in the Bronze Age Mediterranean system and A-E relations, along with their stages of alternating evolution and decline over the course of time.400

396 'I think it (i.e. the core-periphery system) really ought to be confined to economic networks that include cities and the division between raw-material producers and manufacturers' (Sherratt A. 1993b: 245).

397 [§ Network Theory]. Knappett 2011: chapter 6. In this chapter, Knappett studies transcultural relations from the Network Theory view and in comparison with the WST, although he prefers using the term 'networks' instead of 'world-systems'. Many of his examples are taken from the Bronze Age Aegean. Knappett (2011) essentially focuses on the comparison of archaeological finds and social ideologies with the purpose of understanding transcultural relations.

398 'World-systems are whole important human interaction networks including relations among polities, trade and communications networks. Human social evolution is about the rise of larger and more hierarchical and more complex societies and the growth and intensification of long-distance interaction networks.' (Chase-Dunn 2005: 3).

399 'World-systems are systems of societies (international systems) that are strongly linked to one another by interaction networks (trade, alliances, warfare, migration and information flows). Thousands of years ago these were small regional affairs, but they have gotten larger, merged with one another and the big ones have engulfed smaller ones. This process of network expansions has eventuated in the single global macrosocial system of today.' (Chase-Dunn 2005: 5).

400 As the author will show in the following chapters, particularly chapter Seven.
On corresponding aspects of Chase-Dunn's conceptual terminology of world system/s, Wilkinson has attested that all civilisations are systemic. Attributes of civilisations are urbanism (i.e. the existence and development of cities), writing, administration, surplus and trade, accumulation, stratification of society, coherence (i.e. cultural homogeneity, unity, uniformity) and connectedness or closure (i.e. transactional unity and wholeness; internal and external independence).\textsuperscript{401} Additionally, Modelski demonstrates that the world system exhibits political, economic, social and cultural structures.\textsuperscript{402}

Frank and Gills state that, in a world system of core-periphery and hinterland, one can distinguish interlinked direct and indirect complexes, relations and interactions.\textsuperscript{403} Corresponding to the WS model, surplus is being transferred between zones of the same system, a fact that naturally implies the existence of wealth and division of labour.\textsuperscript{404} However, hand-in-hand with the surplus and other politico-economic activities, culture can also be transferred from zone to zone.\textsuperscript{405} To the author, this also applies to the systemic relations between Egypt and the Aegean and, in general, among the zones of the EM world system, as indicated by numerous case-studies, such as the transformation of the Egyptian deity Taweret to the Minoan Genius.\textsuperscript{406}

\textsuperscript{401} Wilkinson 2000: 54
\textsuperscript{402} Modelski 2000: 37
\textsuperscript{403} Frank and Gills 2000: 9. Whether A-E relations were direct or indirect will be discussed in chapter Seven: 'Third parties and direct / indirect A-E interactions' and the Conclusions: 'Research question Seven'; after archaeological, historical and other evidence is examined.
\textsuperscript{404} It is known that in both Egypt and the Minoan world the palatial and other 'state' institutions controlled and generated surplus, and thus, led to social complexity and stratification. For the function of the Minoan palaces and administration, see e.g. Hägg and Marinatos 1987; Schoep 2002a; for the function of Egyptian palaces and administration see e.g. Brewer and Teeter 1999: 69-83, 125-146. Aegean and Egyptian administration is also discussed in (\textit{tables 30-33, 35, 36, 42, 43}).
\textsuperscript{405} Frank and Gills 2000: 9
\textsuperscript{406} For the transformation of the Egyptian deity Taweret to the Minoan Genius, as depicted on various
The most common misunderstanding in the terminology provided rises from the singular or plural form of 'world system/s'. When Chase-Dunn and Hall address the term 'world systems' (notice the plural), they imply systems 'that are self-contained or regarded by their members as worlds-in-themselves', in other words, civilisations pursuing independent careers.\textsuperscript{407} This is particularly noticeable in Bronze Age Egypt, where the sense of 'ethnic identity' and the feeling that Egyptians were the centre of the world, if not, the world, is seen in various aspects of their art and culture.\textsuperscript{408}

\textbf{2.1.2 Characteristics and behaviour of the world system}

The author has already explained the logic behind the WS approach and the terminology applied; she will return to it when necessary. It is now time to closely examine the characteristics of the world system; its function and the mechanisms of interaction between its zones. These also apply in the Bronze Age EM system, parts of which are Egypt and the Aegean.

The characteristics of the world system are as follows:

\begin{itemize}
\item[I)] The process of wealth accumulation as a motor force for the evolution of the
\end{itemize}

\textsuperscript{407} Chase-Dunn and Hall 2000: 86-93. The author should agree with Frank and Gills that the term 'local world system/s' is more appropriate to describe such a unit (Frank and Gills 2000: 27). Nonetheless, in this thesis both 'world system' and 'world systems' are used.

\textsuperscript{408} This, for example, can be seen in the wall paintings of tribute scenes in the Theban tombs, and the way foreigners are depicted (See Booth 2005, Panagiotopoulos 2006).
world system history, which has played a central role in the world system for several millennia (see, for example, the function of the Egyptian and Cretan palaces and administration).

II) The transfer of surplus between zones of the centre-periphery structures, e.g. the circulation of gold from Nubia, via Egypt, to other regions.

III) The alternation between hegemony and rivalry, where regional hegemonies and rivalries succeed the previous period of hegemony. This may be seen in the hypothetical Mycenaean takeover on Crete or the fact that the Greek Mainland took control of many of the EM trade routes after the decline of the Cretan palaces.

IV) The process of wealth accumulation, core-periphery relations and world system hegemonies and rivalries are all cyclical. Alternation of long and short economic cycles is divided into ascending or descending phases. In A-E relations, this is

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409 [§ capital, § public accumulation, § private accumulation, § wealth accumulation → prestige]. Frank and Gills 1993: 8-9 contra Wallerstein 1991, 1993 and Amin 1991, 1993. Wallerstein contrasts world systems with earlier, smaller, 'mini-systems' in which production and exchange of goods took place within single culturally-integrated groups. Amin calls the previous world systems as 'tributary' and Wallerstein calls them 'world empires'. Both Amin and Wallerstein suggest that politics and ideology were in command, not the accumulation of wealth. Whatever the case, both wealth accumulation and politics are the main responsibilities, aims and objectives of the Minoan and Egyptian palaces and administration. For the function of the Minoan palaces and administration see e.g. Hägg and Marinatos 1987; Schoep 2002a: passim; for the function of the Egyptian palaces and administration see e.g. Brewer and Teeter 1999: 69-83, 125-146. Also (tables 30-33, 35, 36, 42, 43).

410 [§ surplus]. Frank and Gills 2000: 9-10. As an example of this comes the transfer of prestige raw materials, such as gold, in the EM. For example, Nubia was rich in gold. Egypt was aware of this, and attempted, at any cost and by any method, to control the Nubian gold mines and 'circulate' the surplus of gold to the rest of the EM. The same gold was likely to have reached the Aegean. For the gold mines of Lower Nubia see Morkot 1996: 69-90; Burstein 2009: 49-54.

411 [§ rivalry].

412 Frank and Gills 2000: 10-11. For the takeover of the EM trade routes from the Minoans by the Mycenaeans see (tables 28, 35, 36).

413 Frank and Gills 2000: 11-13. For the terms 'ascending' and 'descending' see the following pages: 'A five thousand year single world system?'.

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translated as phases of progress and decline.\textsuperscript{414}

So far the author has mentioned that Bronze Age Egypt and the Aegean belonged to the same world system. According to Frank and Gills, criteria of participation in the same world system are as follows:\textsuperscript{415}

I) extensive and continuous trade connections between the various elements of the system.

II) repetitive, cyclical and constant political relations with particular regions or peoples, i.e. relations between the zones from the centre (core) to periphery and to hinterland under the hegemony / rivalry process.

III) world system elements sharing some economic, political and perhaps cultural cycles.

IV) The near-simultaneity of the elements' cycles in a specific geographical region.

Chase-Dunn and Hall argue that interactions between the zones of a world system must be '\textit{two-way and regularised to be systemic}'.\textsuperscript{416} Within the parameters of this thesis, to the author, this is translated as 'Egypt interacts with the Aegean, and at the same time, the Aegean interacts with Egypt'. Even so, the exact procedure, 'course', and intensity of this interaction remains questionable until the examination of the evidence.\textsuperscript{417} Bounding

\begin{footnotesize}
414 The latter can be linked to [§ \textit{historic recurrence}].
415 The following points are mentioned and discussed in Frank and Gills 1993: 5
416 Chase-Dunn and Hall 2000: 89
417 By using the term 'course' the author interrogates who affects whom (the influence of one culture to
criteria and forms of interconnection between different zones of the same world system (and, therefore, between the Aegean and Egypt) are:

- bulk-goods exchange and trade network.

- prestige-goods exchange network (prestige goods economy implies the existence of an elite class, labour, wealth and surplus, private property, etc.) and intermarriages as a means of diplomacy, geo-politics and geo-economics. Prestige-goods exchange and diplomatic marriages also carry 'information' from one part to another.

- political / military exchange networks, including wars, migrations and colonialism.

- information exchange network, including social exchanges, ideology, religion, technical information and all aspects of culture, i.e. world system networking.

Information and technology, ideology and symbolism, i.e. culture itself, can reach another) and how, along with the size / extent of this interaction, i.e. Egypt influenced the Aegean more than the Aegean affected Egypt or vice versa.

418 The following are discussed in Chase-Dunn and Hall 2000: 89.

419 Trade and exchange, along with trade networks between the Aegean and Egypt are discussed in chapters Three, Four and the Annex.

420 The exchange of prestige objects between the Aegean and Egypt will be discussed in chapter Four, with numerous examples in the Annex of finds and on the spreadsheet (CD). For an example of a dynastic / diplomatic marriage between an Aegean princess and an Egyptian monarch see chapter Five: 'The Aegean interactions in Avaris addressed historically'. The topic is also discussed in chapter Seven: The theory of a dynastic marriage in association with the Minoan presence in Egypt'.

421 [§ colonisation, § colonialism]. It is difficult to 'trace' whether these occurred in A-E relations in the era that this thesis examines. On Aegean migration and colonialism in Egypt, along with possible military exchange, see chapter Seven: 'On the razor's edge: Aegeans in Egypt and Egyptians in the Aegean'.

422 [§ networking]. These will only be briefly 'touched upon' in this thesis, as far as A-E relations is concerned (chapters Three and Four, with examples). For the Egyptian - Aegean transition of symbolism, functionality of objects, cult, and culture, see Phillips 2008 (vol. 1) and Petrovic 2003 (Late Bronze Age only).
populations and peripheries directly, in the form of myth and oral tradition, text or custom; or indirectly, as a product itself or in the form of material goods, every time affecting human lives and activities to a greater or lesser degree.\footnote{McNeill 2000: 201} Information can be also transferred through expansion, war, migration, colonialism and, as the Sherratts write: \textit{\textquoteleft material goods are an essential part of cultural structures of meaning and symbolism, which can be used in social strategies of recruitment and exclusion, and so form an important component of social change\textquoteright}.\footnote{Sherratt A. and S. 1991: 354} Transition of information and surplus can be explained by the fact that all human societies, even nomadic hunters-gatherers, interact with neighbouring societies.\footnote{Chase-Dunn and Hall 2000: 88} New transport technologies, for example maritime transport, not only privilege the financial and political situation of certain areas, but simultaneously aid inter-cultural communication.\footnote{Sherratt A. 2000: 123. This is particularly noticeable in the Mediterranean area. For the technological development of the vessels of the Aegeans and the Egyptians, and their seafaring in the EM, see Wachsmann 1998; Oliver 2000; Gilbert 2008.}

The author has so far provided the background on the nature and mechanisms of the world system and the terminology required to explain the concepts of this thesis. To this extent, it is shown that the economic role in the WS approach is of great importance to this research.
2.1.3 A five thousand year single world system?

According to Frank, the single world system, in which we live nowadays, has had a historical continuity for at least 5,000 years. 'Born' in West Asia, North Africa and the EM, its core first emerged in West Asia and Egypt, then spread to contain much of Afro-Eurasia. This so-named 'central world system' eventually expanded to incorporate the rest of the world into one single system.\(^{427}\) Already in the third millennium BC, the same world system had expanded to include not only Egypt and Mesopotamia, but also the Arabian Peninsula, the Levant, Anatolia, Iran, the Indus Valley, Transcaucasia and parts of central Asia - with all regions interacting.\(^{428}\) Wealth accumulation was then - and has always been - the motive force of world system history. Any surplus transferred between the zones of the system implied division of labour and social stratification.\(^{429}\) Even though absolute synchronisation of historical phases across the entire world system is not feasible, Frank suggested a particular scheme of 'ascending' and 'descending' economic cycles, from 1700 BC to 1600 AD.\(^{430}\)

The author will now discuss 'ascending' and 'descending' cycles. Expansion and

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\(^{427}\) Frank, contra Wallerstein, argues that the modern world system, in which we live, is at least five thousand years old. See Wallerstein 1974; Frank and Gills 2000: 3-23. For a detailed list of different opinions on the suggested time length of the world system history or the geographical limits of its expansion see Frank 1993: 383-384, 390; Frank and Gills 2000: 3-8.

\(^{428}\) Frank 1993: 390


\(^{430}\) (Table 25). Frank, 1993: 388-389. Andrew and Susanne Sherratt have dated periods during the 2nd millennium coinciding almost exactly with the phases of this table (Sherratt and Sherratt 1991). 'Ascending and descending' economic cycles were introduced in this chapter: 'Characteristics and behaviour of the world system'.
contraction usually begins in one part of the system - most often the core - to expand to other systemic zones: from the core → via the (usually semi-peripheral) core competitors → all the way to the periphery → hinterland and the margins. When a core declines, e.g. in the case of warfare, political, financial crises and recessions, opportunities are opened to some core rivals or even some peripheral parts of the system and a new core may replace an old central core. This happened in the case of the old Soviet Union, which collapsed in 1991. This also happened to the Minoan civilisation, through the shifting of sea power from the hands of the Minoans to those of the Mycenaeans.

Besides, Chase-Dunn and Hall suggest that the result of competition among core societies depends on how well they can exploit and dominate peripheral regions. Likewise, world system evolution always depends on the speed and effectiveness of semi-peripheral development. Transformation of modes of accumulation and a number of repeated ecological and demographic schemes can affect, positively or negatively, both hierarchy and economy.

Semi-peripheral development can also lead to general world system progress if there is fertile ground for social, organisational and technical innovation. Occasionally,
transformation of modes of accumulation, in combination with ecological and demographic factors, can break out positively such as: I) population growth, II) general intensification and progress, III) polity expansion and hierarchical formation and IV) circumscription; and / or negatively, such as: I) environmental degradation and financial decline, II) population pressure, III) conflict / war and IV) emigration.\textsuperscript{434}

Among all the phases in Frank's five thousand year single world system, emphasis is placed on phase 1700-1500/1400 BC, as it covers the most crucial parts of the period that this thesis discusses. This phase has been criticised by Frank as contracting / descending.\textsuperscript{435} It would be interesting to test Frank's theory and see if it can be historically confirmed in A-E relations and the EM; i.e. if 1700 to 1400 BC is economically-speaking a contracting / descending period.\textsuperscript{436} To do so, the author has constructed (table 28), which presents world systems history.\textsuperscript{437}

2.2 The principles of Bronze Age economy: a world-system approach

So far the author has demonstrated that WST is based on economic phenomena.\textsuperscript{438}

Hence, the application of the WS approach to the historical, archaeological and socio-

\textsuperscript{434} Chase-Dunn and Hall 2000: 98. Advantages and disadvantages can be combined in a world system, i.e. emigration can have both positive and negative effects.
\textsuperscript{435} (table 25)
\textsuperscript{436} This will be covered in the Conclusions at the end of this thesis, as one first needs to study the evidence of these interactions.
\textsuperscript{437} For the historical elements of individual cultures see also (tables 29-43) where the material is presented divided into groups (administration, economy, contact, conflict, etc.).
\textsuperscript{438} See 'The world system/s approach', 'Characteristics and behaviour of the world system' and 'A five thousand year single world system?'.
anthropological research dictates the examination of the Bronze Age economy under a WS perspective.

In (table 27) the author discusses some of the principles of Bronze age economy and the mechanisms according to which this economy functioned. This table includes a collection of ideas expressed by other researchers, but the brief mention of these notions is fundamental to this research. Also, the author uses examples from Egypt and the Aegean in order to explain how these principles operated. In the following chapters the author incorporates these economic principles into her discussion of the nature of centre-periphery and player-to-player relations in the Mediterranean; and more specifically, the A-E interactions. Meanwhile, specific details about the Aegean and Egyptian economic models are provided in (tables 40a,b, 41a,b).

2.3 Game Theory and Aegean - Egyptian relations

Modern GT was introduced by Neumann in the early 20th century, and in 1950/51, John Nash became the 'Father' of strategic non-cooperative GT with his famous 'Nash equilibrium'. Although the initial formulation of these concepts was purely mathematical, nowadays GT is applied in many fields, including economics and the market, politics and social science. As such, it is related to Conflict Theory and WST, which are frequently discussed considering the Bronze Age EM interactions.

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439 See the discussion on WS and GT in the end of chapter Four, Five and Six.
440 Neumann and Morgenstern 1944
441 [§ Game Theory, § equilibrium, § history of Game Theory].
442 Montet and Serra 2003: 1, 12, 76; Weirich 1998: 48-50 with examples.
443 [§ Conflict Theory]. For a few examples of how GT can be associated with Conflict Theory and the
Motivated by this association and by previous scholarship exploring the application of GT in antiquity, the author will evaluate whether A-E relations would fit in the same intellectual frame.

To start with, both WST and GT are used in the study of international relations. First, this is how GT can be linked to international relations: as with the WS approach, one can think of Bronze Age EM interactions as a competitive political and economic game. The definition of the terms 'game', 'player', and 'equilibrium' is provided in the terminology. In brief, GT is the analysis of interactions of players in a game (in that case, game players are the EM peoples) who think and act rationally with the purpose of obtaining the best possible results ('payoffs'). Since the Bronze Age EM 'game of political, economic and cultural interactions' numbers several players (=civilisations) and is competitive, it is expected that frequently, the interests of these players collide; whereas occasionally, agents co-operate in order to support mutual objectives. As a result, the set of actions of players (the players' strategy) includes a mixture of both political / economic conflict and coalitions. In the process of formations of coalitions,

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444 See the Introduction: 'Previous scholarship'.
445 Research such as Correa 2001 links GT to international relations. See also the publication of Pierre and Schmidt 1994 for other similar works.
446 \([\text{§ game}], \text{(table 22)}.\]
447 Terminology of GT after Montet and Serra 2003: 5 and Holt 2006: 5-8. For an explanation of the terms see \([\text{§ Game Theory, § rationality and learning process in games, § Decision Theory}]\) \((\text{table 23})\).
448 \([\text{§ coalition form games, § strategic form of games, § mixed strategy equilibrium, § theory of moves}]\).
certain players (=EM cultures) who function as the 'weakest links', are often ostracised by their peers.\textsuperscript{450} Lastly, in simple words, a Nash equilibrium (a.k.a equilibrium) operates when all players are relatively happy with the game outcome they get, while they still compete against each other.\textsuperscript{451}

The previous paragraph referred to interactions between civilisations and cultures. To delineate, both WST and GT are human-focused. Yet, in WST, groups of humans are solely seen as populations and cultural and geographical zones (e.g. the Egyptians; the Minoans, the core, the periphery).\textsuperscript{452} GT also discusses cultures and populations as game players, but specific individuals are often highlighted as well. For instance, as the following chapters will show, GT can focus on particular Egyptian rulers, the EM elite, the producers, buyers, sellers and consumers of exotica, since the latter, all act as 'players': decision-makers and strategy-planners. To the author, this is the reason why a combination of the two theories would be better for the study of the nature of A-E relations.

2.3.1 Game Theory and Aegean - Egyptian interactions: similarities to the World System/s approach

\textsuperscript{450} According to the rules of [§ Evolutionary Game Theory].
\textsuperscript{451} See (table 24). An explanation: relatively happy to what they get compared to a possible outcome that would not be as good. Their outcome might not be the best outcome in the game but it would be 'good enough' compared to worst outcomes that they could have received. This is how the author understands the term 'equilibrium' on the basis of a more complicated analysis provided in Montet and Serra 2003: 17; Weirich 1998: 130-13. For a detailed terminology see also [§ equilibrium]. As the thesis will show, an equilibrium in the EM world system can happen only under very strict limitations. See chapter Seven: 'Searching for equilibria in A-E interactions'.
\textsuperscript{452} Note 465
Previously, the author described world systems and showed how world systems evolve in time. GT and the WS approach present several similarities, and thus, the modus operandi of a world system can be frequently explained in GT terms. Here are some examples:

I) Agents: WS zones compared to game players

Egypt and the Aegean emerged via their interactions with other cultures. WST examines core-to-margin interactions between competitive zones. Similarly, GT explores the co-operative and/or rival transactions among players or groups of players. In international relations, both zones and players operate strategically within a certain geographical space. Assuming that zones and players represent ethnic groups (Aegeans, Egyptians, others), in both approaches, inter-relations between WS zones or game players take a strong political, economic and cultural character.

In GT terms, a game is defined by its players and the players' strategies. Some players are more powerful than others; and how players react and interact with each other is crucial for the payoffs of the game. Correspondingly, in international relations, when a 'game' equals the foreign policy of a group of states or cultures in a set space and time, it is evident that the players, along with the strategies they adopt and moves they take,

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453 (table 21).
455 [§ game].
will define the course and outcome(s) of the game. Some states, like Egypt, happen to be more powerful and advanced than others, a fact that generates co-operation and rivalry. Similarly, in WS terms, the core, which is more powerful and advanced than the rest of the zones, is in rivalry and tension with (semi-)peripheral zones. To conclude, the political and economic nature of a world system or a 'game' of foreign affairs depends on the transactions, strategy and moves of individual agents. For instance, the nature and overview of politics, economy and culture in the Bronze Age Eastern Mediterranean depended on individual units (the Aegeans, the Egyptians, others) and any interactions between individual agents of the world system / game; thereupon, on A-E relations per se.

In the Bronze Age EM 1900-1450 BC, there were multiple rival cores, and thus, multiple rival world systems. Depending on time, the system's core could be Egypt (geographically united), Lower Egypt, Upper Egypt, the Hyksos, Syrians- Palestinians, or other Near Eastern cultures; and these cores, like the players of a game in GT, competed against each about equally contested peripheries. Moreover, each state and civilisation could function as a world system / player on its own, since it consisted of geographical areas which were more advanced than others. For instance, the Bronze Age Aegean constituted of cores (Crete and later Mycenae) and (semi-)peripheries (e.g. the Aegean islands). In Second Intermediate Period Egypt, the Asiatics (Lower Egypt)...

457 [§ theory of moves].
458 See chapter Two: "Characteristics and behaviour of the world system'.
459 See research question Eight: 'In a world system of core-periphery interactions, what role did the Aegean and Egypt play? Who was in the orbit of whom?' in the conclusions.
460 An explanation: depending on time, historical circumstances and influence from the cores, individual Aegean islands ranged from semi-peripheral to marginal.
represented a separate world system to that of the indigenous Egyptians (Upper Egypt) with the two world systems colliding due to conflicts of interest.

Third parties (states outside the Aegean and Egypt) and gateways, which in WS terms operate as intermediaries between zones / nations, receive a similar function in GT terms.\textsuperscript{461} These multifaceted regions serve a political and economic purpose, and, most importantly, encourage interconnectivity among WS zones. In GT, where exchange of information among players is vital, such regions function as players-allies, offering negotiation services and passing information to the rival – but passing information can have positive or negative consequences in the game.\textsuperscript{462} From the WS point of view, it is through these regions that commodities and culture are accumulated and redistributed.

A closer look at the Aegean and Egyptian societies (1900-1400 BC) reveals the identity of the players in the 'game' of international transactions. The elite, and particularly the state, are the decision makers who, according to Decision Theory, decide upon strategies and plans of action.\textsuperscript{463} Nonetheless, other social strata can also operate as players, particularly with respect to the transference of products and culture.\textsuperscript{464}

II) The cultural effect

\textsuperscript{461} For how third parties operate see (table 27) / principle Y, and (tables 28-39) with historical examples.
\textsuperscript{462} Montet and Serra 2003: 6, 74. [$\$ \text{game}, \$ \text{rationality and learning process in games}].
\textsuperscript{463} [$\$ \text{Decision Theory}] and see (table 27), economic principle G.
\textsuperscript{464} For these players, see chapter Seven: 'The protagonists of A-E interactions'.

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Egypt and the Aegean are human populations, not merely geographical regions. The human-factor-based view of world systems, briefly expressed by Modelski, Chase-Dunn and A. Sherratt, emphasizes the impact of culture in WS interactions. Similarly, in GT, culture plays a significant role in players' transactions. The rational (or irrational) decisions made by players, the action taken, the equilibria and the outcome of a game, are all dependent on 'social conventions', i.e. cultural and social norms and their distribution in space and time. Rational strategies of players are determined by culture, customs and ethics too. To conclude, A-E interactions were also dependent on social conventions, integrated with the Aegean and Egyptian past and shared with the rest of the system.

III) Expansionary policy

The importance of Egypt and the Aegean as WS zones fluctuates over time. First, as WS zones, they expand or contract, with taking different political, economic and cultural trajectories. For instance, treaty trade among nations operates for the benefit of the market, and it is thanks to treaty trade and international diplomacy that certain WS

465 Modelski 2000: 25, 37; Chase-Dunn 2005: 3, 5; Sherratt A. 1993b: 245, see Chapter Two: 'The world system/s approach'.
466 Kreps 1990a. Whereas from the GT viewpoint players have to be rational, in truth, states and leaders (as game players) are not always rational, and/or do not always act rationally. Many leaders have been called 'irrational' and have taken 'irrational actions' throughout history. A recent example might be the North Korean Leader Kim Jong-un (Sisk 2014). See also § rationality and learning process in games.
467 This is because decision makers are culturally and ethically associated and aware. See Schelling 1960.
468 Gills and Frank 1993: 97-99, (table 27). See also chapter Two: 'Characteristics and behaviour of the world system'.
469 See the 'market' in (table 27), and [§ treaty trade].

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zones can expand. This 'elasticity' of the world system, in aspects of international
politics, economy and cross-cultural networking, is not unfamiliar from the GT view,
since according to the so-named Evolutionary Game Theory, players operate in a similar
manner by constantly modifying their strategy, eliminating weak opponents and creating
coalitions (alliances) in order to become more powerful.\textsuperscript{470} Additionally, in GT,
migrations are often seen as the bearers of redistribution of political power and
economic surplus.\textsuperscript{471} Likewise, the zones of the Bronze Age EM world system expanded
or contracted over time, both geographically and in terms of power. Besides, A-E
relations, although presenting phases of progress and decline, were generally
expansionary and incorporated third parties. The payoff of every player / state (i.e. what
every state gained through foreign affairs) relied on the strategy followed by the player
and the strategy of rival players / states.\textsuperscript{472} Similarly, the future of Egypt and the Aegean
depended on the 'wider picture' of the networking process. Evidently, imperialism,
proto-capitalism and urbanisation not only transformed the system, but also 'shaped' the
nature of the A-E contact.\textsuperscript{473}

IV) Conflict and coalitions

Egypt would have never been a superpower if charismatic politicians had not favoured

\textsuperscript{470} Montet and Serra 2003: 77, [§ \textbf{Evolutionary Game Theory}].

\textsuperscript{471} See e.g. Luterbacher and Theler 1994. For a similar consideration in WS terms see Chase-Dunn
2005: 3, 5.

\textsuperscript{472} The opponents would be groups of people and cultures that acted in an antagonistic manner at a
political and economic level.

\textsuperscript{473} (table 27).
warfare and imperialism. Chase-Dunn highlights the importance of diplomacy and political networking in WS interactions. He also stresses the importance of communication networks such as trade, alliances, warfare, migration and information flows. Likewise, communication is vital in GT terms, since players negotiate directly or indirectly, with the purpose of exchanging information. Schelling's book (1960) on 'the strategy of conflict' is surprisingly modern. Schelling develops his ideas on 'coordination games' based on the study of threats, promises and commitments among players. In non-cooperative games, players act on the basis of their self-interest, whereas in cooperative games they form coalitions; but in both cases, communication between players is vital. Coalitions are based on trust and set rules, and when they occur, apart from the payoff of the game, there are 'side-payments' for the individual members in each coalition. It is important however to emphasise that a coalition among players cannot eliminate the personal ambitions of players, therefore the game is cooperative and non-cooperative at the same time.

Indeed, from the perspective of GT, the line between co-operative and non-cooperative games is very fine and history demonstrates that the patterns of communication between

474 (tables 28-33) with historical examples.
475 (tables 35, 43).
476 Chase-Dunn 2005: 3, 5
477 Montet and Serra 2003: 6, 63, 74, [§ rationality and learning process in games, § Conflict Theory]. See also Correa 2001: 191-197, 199 who discusses conflict and diplomatic alliances as part of GT in terms of international relations.
478 [§ Conflict Theory]. See also Schelling 1994 on the strategy of conflict, and Luttwak 1994 on the logic of strategy.
479 Montet and Serra 2003: 2-3, 22, 24, 74
480 Montet and Serra 2003: 24, [§ game, and especially coalition form games].
the various regions in the Bronze Age EM were both co-operative and non-cooperative. ⁴⁸¹ Similarly, the 'game' of A-E interactions operates bidirectionally and multi-directionally (i.e. with third parties, such as the Syrians) in both a cooperative and non-cooperative manner. Bronze Age EM relations can be cooperative and non-cooperative at the same time, while players / states maintain both friendly and rival connections with the opponents, depending on their interests and needs. Warfare and competition in the market are the antitheses of dynastic marriages and alliances and this extreme contrast is seen across the system. Last, international coalitions are formed through political and economic alliances, such as gift-exchange between rulers, treaty trade, and dynastic marriages. ⁴⁸²

V) Cyclical behaviour

There was a 'historical recurrence' in the relations between Egypt and the Aegean so that Egyptians and Aegeans learned from former international interactions. ⁴⁸³ A cyclical behaviour is observed as world systems evolve in time, with Frank even suggesting ascending and descending phases in his five thousand year world system. ⁴⁸⁴ Likewise, in GT, a game demonstrates alternating and often predictable patterns since the strategies and actions of players are repetitive. This is because players operate with rationality and

⁴⁸¹ See (table 28) for examples.
⁴⁸² (tables 27-39) with examples, and chapter Seven.
⁴⁸³ As people say 'history repeats itself'. See [§ historic recurrence].
⁴⁸⁴ Frank and Gills 2000: 11-13. For details on the cyclical behaviour of the world systems, see chapter Two: 'Characteristics and behaviour of the world system'. For the Five Thousand Year single world system see Frank 1993: 383-384, 390. See also chapter Two: 'A five thousand year single world system?'.

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their strategies are based on their past experiences and memory when dealing with other players.\(^{485}\) In simple words, 'if the opponent does this, I will do that, because said strategy worked in the past, against some other strategy that did not work in a similar case'. Cyclicity and repetition function as a learning process and often encourage cooperation when parts of a game are repeated.\(^{486}\) This is an example of how these are reflected in A-E interactions: If the Minoans were trade partners with the Egyptians at a certain point in history, there is a good chance that the same would occur at a future time, since the reliable past of such an affair would give confidence in continuing A-E transactions.

VI) Autarky and the market

Economic and political autarky are interdependent. The political and economic agenda of Egypt, the Aegean and other regions strove after autarky via trade, diplomacy or warfare, and the establishment of colonies.\(^{487}\) In the world systems approach, the zone-to-zone transference of surplus and wealth accumulation prompts autarky.\(^{488}\) Equally, in economic GT, the aspiration of players is to obtain and maintain autarky while making as much profit as possible.\(^{489}\)

VII) Equilibrium

\(^{485}\) Montet and Serra 2003: 6, 8, 76, 142, [§ rationality and learning process in games].
\(^{486}\) Montet and Serra 2003: 89
\(^{487}\) Examples in chapters Four and Six.
\(^{488}\) Gills and Frank 1993: 9-9, 93-95, 103
\(^{489}\) Holt (2007) discusses GT and the market extensively. See also Correa (2001: 197-198) who discusses GT and the economic relations among nations-states.
Were Aegeans and Egyptians in a GT equilibrium? Andrew Sherratt shows that world-system relations relied on a set of real-time interactions, and that the fortune of a world system depended on the circumstances of individual zones. GT, Nash equilibrium and the Theory of Moves also demonstrate that a change in the strategy of one player affects the strategies of others and the payoffs of the game. Changes in the EM world system affected all agents, although in different degrees.

To conclude, the discussion demonstrated that:

- the characteristics of the world system,
- the criteria of participation in the same world system,
- the bounding criteria and ways of communication between different zones of the same world system,
- and the transference of information,

can be examined together with GT, since, in fact, WST and GT can complement each other in the study of A-E relations.

Therefore, the author will analyse A-E exchange, the Avaris frescoes and the Aegean processional scenes in Thebes within the distinct frameworks of GT and of the WS approach. Moreover, the thesis will inquire whether and how a theoretical model of

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491 Montet and Serra 2003: 22, 65. See [§ equilibrium, § theory of moves] and (tables 23, 24).
492 The following information in bullet-points was discussed in this chapter: 'Characteristics and behaviour of the world system'.
493 End of chapter Four, Five and Six.
the 'Nash Equilibrium' might operate in Egyptian - Aegean interactions c 1900-1450 BC.  

2.4 The future: Cultural Multilevel Selection

The CMLS model of Turchin et al. (2013a,b,c) is a cultural evolutionary model focusing on warfare. The model is mathematics- and computer-based and to the author, it is related to (and could be compared with) the WST and GT, due to its similarities with the zone-periphery and (non-)co-operative notions. The model was applied to the history of Afroeurasia between 1500 BC and 1500 AD under two parameters: technology and geography. Turchin et al. briefly examined Egyptian warfare after 1500 BC to empirically show that it generated military technology and wealth which in turn boosted state formation and expansion. The computerised results of their simulation model reasonably agreed with the historical data.

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494 End of chapter Seven.
495 Judging from the affiliations of the authors, the model is inspired by mathematics and biology. For the major trains of CMLS see Turchin et al. 2013a: 1. An explanation: as the author sees it, the model is primarily related to WST because it recalls the core-periphery interactions and the spread of surplus and culture, which encourage state formation and expansion. Effectively, the CMLS attempts to remodel the world system mathematically. One of the authors of Turchin et al. 2013a,b,c, has confirmed this relationship: 'The CMLS approach is a completely different theoretical framework from the world systems theory. However, it co-exists cordially within the umbrella of cliodynamics' (personal email from Peter Turchin: 29 September 2013) [§ cliodynamics]. CMLS is also relevant to GT because it demonstrates values similar to the GT conflict and coalition in co-operative / non-co-operative games, and especially, Evolutionary Game Theory. For these exact reasons the author decided to discuss this model in her thesis, but only as a taster, with the potential for further research.
496 Turchin et al. 2013a: 2. The regions in examination were divided into areas of 100 square kilometres, based on geographical location and the existence or non-existence of farming societies and primal states. The researchers allocated military technology to certain geographical areas and simulated military expansion and state formation to other areas. To the authors, the model empirically shows, with a success of 65% when geography and military technology are considered, when and where in Afroeurasia (between 1500 BC and 1500 AD) states were formed (Turchin et al 2013a: 1).
The author wondered if the CMLS results could tell a story about A-E relations specifically in the period 1500-1400 BC. On the basis of Turchin et al. 2013a,b,c she concluded that:

I) the simulation results of CMLS disagreed with the historical data for Egypt from 1500 BC to at least 1200 BC, even though they were reasonably accurate for Syria-Palestine. Turchin et al. accepted that the value of 'imperial density' in Egypt was under-predicted in the beginning of their 'ERA 1'. To put it straight, between 1500-1300 BC the CMLS shows no imperial density in Egypt - contrarily to historical data. By imperial density, the authors define organised large-scale societies.

II) The second problem of the CMLS results was that the authors focused on the largest polities; therefore some Greek city-states were not represented. In fact, Crete is absent from the picture and data for the Mainland are only drawn after 800 BC.

To conclude, currently, CMLS would be inappropriate to analyse A-E relations 1500-1400 BC. But is there any potential for this model with regard to Greek - Egyptian interactions?

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497 Turchin et al 2013b: 8, 17, 19.
498 ERA 1 ranges from 1500 BC to 500 BC. Turchin et al 2013b: 17.
499 Turchin et al 2013a,b created and examined the so-named 'imperial density maps', which manifested the distribution, density and frequency of organised large scale societies in the course of history.
500 greater than 100,000 km² (Turchin et al 2013b: 19).
There is, but with limitations. With the current results, drawing conclusions and attempting a comparison with the historically-based, EM world system, is allowed only after 800/600 BC, when both Greece and Egypt are well documented by the CMLS. Nonetheless, according to the current data, conclusions about Egyptian - Levantine relations, and the way these relations might affect the rest of the EM, could be drawn from after 1300 BC. Ideally, further analysis, focusing on smaller polities and examining data before 1500 BC might provide more material for research. Also, to the author, a change in the parameters of CMLS might be able to gather results about the most powerful markets of the Old World.

To sum up, together with the well-researched WST, GT, and in the future, CMLS, can change the way researchers study A-E relations.

502 Turchin et al: 2013c.
CHAPTER THREE

AEGEAN AND EGYPTIAN ASPECTS OF HISTORY
AND A HISTORICAL OVERVIEW OF AEGEAN -
EGYPTIAN INTERACTIONS

Tablet Db 1105 with Linear B script. It records a flock of 52 sheep and 28 ewes belonging to an a3-ku-pi-ii-jo (Egyptian) from su-ri-ma (Sylamos?).

The present chapter serves as an introduction and point-of-reference for chapters Four, Five and Six, in which, evidence (artefacts and texts) is examined in greater detail. The objective of this chapter is to highlight the key points of the A-E relationship in aspects of cult, culture, art and technology, along with suggesting references for further study. Still, some limitations apply. A full discussion of the history of A-E relations is beyond the scope of this thesis. Only the principal frames of this relationship will be outlined here. Attention will be placed on the Second Millennium BC up to c 1350 BC.

A-E interactions were initiated c 2600 BC, if not earlier. However, the Second Millennium BC is better documented in both artefacts and texts.

503 For a discussion of this tablet see the following chapter: 'Aegean texts'.
504 (tables 44a.b) Predynastic stone vessels discovered at Knossos come from problematic, likely later, contexts (Bevan 2004: 110-111). Due to space restrictions, it is not possible to discuss A-E relations in the Third Millennium BC.
3.1 Eastern Mediterranean, World System and Game Theory: the example of the cog-wheel machine

For individual references see (tables 28-43)

This part of the thesis is a critical analysis of the data, based on (tables 28-43), which track the course of major political, economic, cultural and intra-cultural changes on Crete and the Aegean islands, the Greek Mainland, Cyprus, the Levant and Egypt between 1900-1400 BC. Individual references are provided in these tables.

As seen before, the world system functions like a machine consisting of a set of cog-wheels which could correspond to different cultures (Egypt, Crete, etc.). One cog-wheel motivates the other, and if one of them breaks, the machine will come to a halt.\footnote{See chapter Two: 'The world system/s approach'.}

505
the same notion is manifested in the process of equilibrium.506

From the study of (tables 28-35, 40, 41) it becomes apparent that in Egypt, the models of polity, economy and international relations changed very significantly from the Middle Kingdom through the Hyksos Period and into the New Kingdom, while, over the same time, drastic changes in politics, economy and foreign affairs also happened in the Aegean. Naturally, A-E contact was 'shaped' according to historical circumstances in Egypt, the Aegean and beyond.

The objective therefore, was to investigate, how the 'EM cog-wheel machine' operated; i.e. whether and how the broader economic, political and inter-cultural changes in the 'EM world system' or 'EM game', correlated to the nature and form of A-E contact. To achieve this, the author identified some major political, economic and social patterns and events over the course of time (e.g. elitism, organised administration, etc.), and examined whether (and how) these patterns and events had a positive or negative impact on A-E relations, directly or indirectly.507 The following was borne in mind:

Overall, criteria to assess and measure Eastern Mediterranean relations over time are:

- geography,
- connectivity,

506 See chapter Two: 'Game Theory and Aegean - Egyptian interactions: similarities to the World System/s approach'.
507 The following pages discuss these matters. Because of space limitations, it is impossible to discuss how every single pattern or event may have affected A-E relations. The following discussion only provides a few significant examples of how this was done.
organised societies,

- stimuli,

- and chance.

Geography is self-explanatory: proximity of geographical regions and nearness to natural resources that generate wealth; or even the need of certain communities to access such natural resources, encourage contact.\(^{508}\) Connectivity depends on geography, along with the media of accessibility: for instance, how easy it was for the Cretans to reach Egypt by sea.\(^{509}\) Any kind of transcultural contact (even warfare as a form of contact) requires highly organised societies.\(^{510}\) Stimuli vary, ranging from ambitious political expansion plans, to leaders' and communities' ideological concerns, while resource conflicts are also associated with geography.\(^{511}\) Chance is also a factor: the likelihood of something happening, whether organised or accidental; e.g. warfare or natural disasters dividing the system. Now follows the discussion with some examples:\(^{512}\)

\(^{508}\) chapter One: 'Natural Geography'.

\(^{509}\) chapter Three: 'Aegean ↔ Egypt: Trade and contact routes'.

\(^{510}\) Sheehan 2014: 215-216

\(^{511}\) These contact stimuli are unsurprisingly related to both ancient and modern warfare, as shown by Cohen 1994 and Wright 1994.

\(^{512}\) The author has not followed the periodisation of Frank (1993) (**table 25**) in her thesis, as she finds that his preferred chronological limits of contracting/descending and expanding/ascending phases are rather flexible (e.g. phase 1700-1500/1400) and thus, inappropriate to present the complex history of the Aegean and Egypt. In this chapter and on Research question Eight, the following periodisation is used instead: 2000/1950-1800 BC; 1800-1600 BC; and 1600-1400/1350 BC. The periodisation of Frank's phase 1700-1500/1400 is only maintained in the discussion of Egypt and the Aegean within the WS, in the second-from-left column of (**table 28**), for comparison with his own periodisation (column three of the same table). A comparison of these two columns suggests that overall, phase 1700-1500/1400 is a period of progress for Egypt, the Aegean and their interactions, contra the 'contracting/descenting' labelling of Frank.
2000/1950-1800 BC

• Overall, in the Near East, declining regions gave place to developing regions. Warfare and treaties promoted the expansion of certain cultures (e.g. the Assyrians from c. 1950) and the establishment of new city-states (e.g. Babylon c 1900 BC). In Syria-Palestine, new powerful trade centres and communication routes were established.\textsuperscript{513} Mari, Byblos, Qatna, Aleppo, and Ugarit, with their inter-cultural relations, must have encouraged A-E relations, at least indirectly, considering that they maintained relations with Egypt and / or the Aegean.\textsuperscript{514}

Some of the common WS patterns at the time are:

i) system core expansion due to warfare, treaties, migrations and urbanisation,

ii) powerful palace elites,

iii) the elite's consumption of luxury, often exotic items,

iv) the elite's accumulation of wealth and manipulation of raw materials,

v) diplomatic gift-exchange, and

vi) intensification of short and long distance trade.

These broader political and economic changes also correspond to Egypt and the Aegean and have a positive impact on their interrelations.\textsuperscript{515}

• Unsurprisingly, patterns that are seen on Crete between 1950-1800 BC are

\textsuperscript{513} (table 28)
\textsuperscript{514} (tables 28, 29, 34, 39).
\textsuperscript{515} (tables 28, 31, 34, 35, 38)
similar to world system patterns discussed above:516
i) 'Old' palaces as cultural, manufacturing and storage centres,
ii) social hierarchy,
iii) elites consuming prestige goods,
iv) urbanisation: Knossos as a key centre,
v) centralisation / limited state control compared to the following periods,
vi) administration: seals, Cretan hieroglyphic script,
vi) trade: production, circulation.
viii) Most importantly, the island expands its horizons of communication.517

The elite-initiated relations with Egypt and with foreign regions that are associated with Egypt broaden the opportunity for A-E communication, although this remains largely indirect. Special relationships are established with Cyprus, Ugarit and Mari (MM IB-II).518

- Similar patterns are developing slowly on the Greek Mainland:
  i) urbanisation,
  ii) settlement hierarchy,
  iii) elites from MH I,
  iv) wealth accumulation and consumption of prestige items,
  v) diplomacy,

516 (tables 28, 35)
517 (table 34)
518 (tables 28, 34)
vi) contact with foreign lands.\textsuperscript{519}

But although there is contact with the Aegean islands and Crete from MH I, long-distance trade networks are limited, and the Mainland has no impact on the A-E interactions at the time.

- In contrast, Cyprus, which also follows similar patterns with the rest of the world system (e.g. urbanisation, social stratification, writing, a powerful elite, trade and exchange, consumption of wealth and exotica), has undertaken a very important role: it 'bridges' cross-cultural communication between east and west. Local elites control the circulation of metals and trade with the Aegean, Egypt and the Near East,\textsuperscript{520} and since the Cypriots maintain relations with both Crete and Egypt, they bring these peoples into indirect contact.

- In the Levant, Ugarit is often visited by Minoans interested in local metal supplies.\textsuperscript{521} But whereas Minoan contacts with the northern Levant - and particularly with Byblos - are ongoing, communication with the southern Levant (e.g. Hazor) is limited. Interestingly, some Minoan contact with the Levant could be generated by extra-palatial individuals.\textsuperscript{522} Thus, it is possible that certain Levantine urban centres played an intermediary role in A-E interactions at the

\textsuperscript{519} (table 36)
\textsuperscript{520} (table 37)
\textsuperscript{521} (table 39). See also (tables 28, 41b), for the textual material manifesting the Aegean presence there (i.e. text 'ARMA 1270').
\textsuperscript{522} Merrillees 2003: 136
time, since they were associated with both Crete and Egypt.\footnote{523}

- Indeed, it is likely that the Egyptians had political and economic treaties with Ugarit and Byblos, possibly with Cyprus too; regions that were in touch with the Minoans.\footnote{524} Such links enabled an indirect Minoan contact with Egypt. The Egyptian diplomatic treaties, exploitation of foreign lands (e.g. quarries in Nubia), and an alternation of peace and war, particularly at the end of the period (Asiatics arrive on Egyptian ground in the late eleventh dynasty),\footnote{525} create a new environment for foreign contact in the Eastern Mediterranean. A-E communication, at least at indirect level, does not remain unaffected by political, economic and cultural circumstances caused by the Egyptians.\footnote{526} A-E relations are still limited but slowly increase.\footnote{527} Also, it is noteworthy that world system patterns such as urbanisation and administration are apparent in Egypt too.\footnote{528} But whereas the nature of kingship is problematic in regions such as Crete and the Greek Mainland, Egypt clearly has Pharaonic rule. Social stratification is obvious in both Egypt and the Aegean at the time, and the building projects of the palaces in Crete could correspond to the Egyptian palaces and other similar grandiose projects in Egypt (e.g. projects of Amenemhat II).\footnote{529} Obviously, such WS patterns, and particularly elitism, nourished the ground for the development

\footnotesize{\begin{itemize}
  \item \footnote{523 (table 39)}
  \item \footnote{524 (tables 28, 29, 34)}
  \item \footnote{525 (table 29)}
  \item \footnote{526 (table 28)}
  \item \footnote{527 (table 34)}
  \item \footnote{528 (tables 28, 30, 31)}
  \item \footnote{529 (tables 28, 30, 35)}
\end{itemize}}
of A-E interactions. Even the decentralisation of power, people and services is common to both cultures at the time, but decentralisation does not diminish the power of locally-developed elites.\textsuperscript{530}

\textbf{1800-1600 BC}

- Overall, this is a period of recession, decline of urbanisation, decentralisation and mass migrations in the eastern Mediterranean and the Near East, but while certain areas of the system are affected more than others (e.g. Levant, Anatolia, Mesopotamia, Harappa, and, with limitations, Egypt)\textsuperscript{531} those unaffected or affected less manage to flourish (Crete and the Aegean Islands, Cyprus, Asia Minor, certain regions in Syria-Palestine).\textsuperscript{532} The new situation creates new contact routes, and impediments aside, encourages A-E interactions.\textsuperscript{533}

- On Crete, the second half of Proto-palatial also features:

\textsuperscript{530} (table 31) compared to (table 35)
\textsuperscript{531} An explanation: The view that overall, the world system was on recession and decline at that time (especially after c 1750/1700 BC) is expressed by Frank (1993: 396: 'Phase B'), supported by the following evidence: i) mass migrations and the weakening of ethnocultural and political systems throughout the Eastern European steppe and in the Eastern Mediterranean (Chernych 1992: 305); ii) rapidly declining trade and social disruption in Mesopotamia and the Persian Gulf from c 1750 (Edens 1992: 132); iii) mass migrations and simultaneous crises of linked hegemonies: 'conquests' of Anatolia and Mesopotamia by the Hittites and Kassites, with the Hurrians and the Hyksos overrunning the Levant and Egypt (Frank 1992a; 1993: 396); iv) inevitable economic disruption and implosion in Mesopotamia (Oppenheim 1977: 159) and v) the fact that the number of major cities in Egypt drops from five (1800 BC) to three (1600 BC) (Wilkinson, D. 1993; 2000). Nonetheless, the following pages will demonstrate that i) as the Sherratts (1991: 369-370; 1993a; 1993b; 2000a) correctly point out, the Aegean experienced progress during these two centuries; and ii) between 1800-1600 BC recession was only regional in the land of Egypt, and in fact, the antitheses of the era stimulated local economy.
\textsuperscript{532} (table 28).
\textsuperscript{533} (tables 28, 29, 34)
i) the 'old' palaces as centres of consumption and culture,

ii) a leadership of political and religious services,

iii) palatial administration with script and seals,

iv) social stratification,

v) decentralisation.\textsuperscript{534}

In theory, these factors could assist the connections of the island with foreign lands, as it happened (e.g. increased contact with the Aegean islands, the Near East, the Levant).\textsuperscript{535} Considering direct and indirect A-E relations, one would expect that these were hampered for a time due to the political and economic instability in Egypt in the late 12th and 13th dynasty, with Asians already being on Egyptian ground.\textsuperscript{536} However, evidence shows that relations with Egypt did not cease altogether, and if they declined, they quickly caught up.\textsuperscript{537} Connections were reformed, and Crete was in contact with both indigenous Egyptians and foreigners in Egypt at the time. Contact between the Cyclades and Egypt was rather limited.\textsuperscript{538}

In the first half of the Neo-palatial:

\textsuperscript{534} (table 35)
\textsuperscript{535} (table 34)
\textsuperscript{536} See the following page
\textsuperscript{537} As it can be seen on the spreadsheet of material culture, there are plenty of Aegyptiaca dating to the MM IB and MM IIA,B which, according to traditional chronology, correspond to the late 12th, and thirteenth dynasty; but some are antiques in their archaeological context and must have reached Crete later in time. See also (tables 29, 34).
\textsuperscript{538} (table 34)
i) the 'new' palaces expand their power,

ii) Crete becomes heavily urbanised,

iii) there is administrative and economic unity, but

iv) decentralisation does not cease.

v) first appearance of villas and smaller palaces

vi) palace associated nobles and extra-palatial elite receive more power.  

Communication with foreign lands flourishes along with the new palaces and the increased power of palatial and extra-palatial elites. There is a well-established contact with the Greek Mainlanders and the Aegean Islanders, and some contact with Cyprus, the Levant and indirectly with the Hittites, but trade with Syria-Palestine is limited.  

Thanks to Cretan relations, some islands become powerful at the time (Thera, Rhodes, etc) and contact Egypt via Crete. Particularly, Minoan contact with Cyprus, the Levant, Syria-Palestine and the Hittites might have encouraged indirect A-E communication.  

Minoan relations with the Hyksos did occur, although these are mainly indirect and became more intensified and direct at the end of the Hyksos period. Also, since contact between Lower and Upper Egypt was not entirely cut off, there was some, mainly indirect, Minoan contact with the indigenous Egyptians.  

\[\text{132}\]
• On the Greek Mainland, the existence of extra-palatial elites and some rivalry in MH III among Mycenaean centres and between competitive leaders, promoted diplomatic relations (e.g. with Cyprus, the Balkans, etc). There was some technological progress. At the time, contact with Egypt was indirect and minimal, and it is unlikely that the Mycenaean had an impact on Cretan - Egyptian relations. 543

• The following are seen in Cyprus:
  i) urbanisation,
  ii) social stratification: palatial and extra-palatial elites consuming luxury items
  iii) administration and writing
  iv) copper production and circulation (state-controlled)
  v) intra-island conflict (transitional MC III-LC I)
  vi) freelancers, specialised merchants, craft specialists. 544

All these factors triggered Cypriot contact with foreign lands, especially with Palestine. The Cypriot - Hyksos communication (MB IIB-C) was also solid, and since Crete maintained some contact with Cyprus at the time, Minoan relations with Egypt were facilitated via Cyprus. 545

• There were inter-elite connections and a possible Minoan presence in Alalakh and Kabri. When Cretan - Mari relations ceased after the fall of Mari (1750-
1664), Minoan trade with the Levant was challenged due to political instability, and the Minoans had to focus on trade with Egypt and other near Eastern regions (e.g. the Amorites).\(^{546}\)

- A-E relations, although still mainly indirect, remained unaffected until the end of the twelfth dynasty, a time of expansion and building projects for the indigenous Egyptians.\(^{547}\) But the coming of Asiatics introduced an era of antitheses in Egypt that changed the image of A-E interactions:\(^{548}\)

i) further urbanisation (Xois, Avaris) VERSUS urban decline (Itjawy - thirteenth dynasty)

ii) expansion VERSUS fragmentation: Asiatics' control over Lower Egypt, Nubia and the Levant VERSUS political / administrative, economic and cultural regionalism. Lower Egypt VERSUS Middle Egypt VERSUS Upper Egypt. Ephemeral monarchy: e.g. Nehesy in the Delta (fourteenth dynasty).

iv) Regional elitism and wealth accumulation (e.g. Avaris) VERSUS recession in certain areas of Egypt and Nubia (e.g. certain Nubian forts decline).

v) Provincial differentiation in foreign relations VERSUS intra-ruler contact and diplomacy (between thirteenth - fourteenth dynasty rulers and even between Upper and Lower Egypt).\(^{549}\)

\(^{546}\) (tables 39)

\(^{547}\) (tables 28, 30)

\(^{548}\) (tables 29, 30)

\(^{549}\) (tables 28, 32)
In particular:

a) thirteenth dynasty: A period of fragmentation. Middle Egypt is in touch with the Delta, Upper Egypt, and Kerma. Memphis, autonomous but an Egyptian domain, trades with the Levant, the Near East and Egyptianised Byblos. Egyptian officials are sent to Nubia and the Levant. Asiatic officials are sent from Lower Egypt to major centres in Upper Egypt.\textsuperscript{550} On the other hand, at the onset of the thirteenth dynasty, there is no trade between Avaris and Lebanon and Avarian trade with Byblos ceases due to disturbance (decline of Byblos, Mari, Qatna), although Avaris maintains contact with some regions in the Levant.\textsuperscript{551} Recent research suggests that at least until the reign of Sobekhotep IV, there is administrative contact between Lower and Upper Egypt and Egyptian administration in Upper Egypt continued functioning while Asiatics were in the Delta.\textsuperscript{552} It is likely that the Minoans, who maintained some contact with the Levant at the time (although limited and often interrupted),\textsuperscript{553} were in touch with both indigenous Egyptians and the Avarian Hyksos via spheres of common interest in the Levant (e.g. Cyprus).\textsuperscript{554} Abydos operates almost in isolation and contact with the Aegean is almost non-existent.\textsuperscript{555}

\textsuperscript{550} Moeller and Marouard 2011: 103, 107, 109
\textsuperscript{551} (table 29)
\textsuperscript{552} Moeller and Marouard 2011: 105
\textsuperscript{553} (table 39)
\textsuperscript{554} (tables 28, 29, 34)
\textsuperscript{555} (table 29)
b) fourteenth dynasty: Avaris is still a residence. Avarian trade is controlled by the palaces, but some private enterprise operates. Avaris has good relations with Nubia (Kerma), Canaan, and the domain of contemporary thirteenth dynasty (the indigenous Egyptians in Middle Egypt), often via treaties and dynastic marriages. The Avarian public and private commercial enterprise and diplomacy between indigenous Egyptians and foreigners broaden Minoan relations with the land of Egypt and beyond.\(^{556}\)

c) Early fifteenth dynasty: There may be a late thirteenth dynasty and early fifteenth dynasty overlap.\(^ {557}\) Alternating warfare and peace with peace established by treaties. Avaris, with a mixed Canaanite - Egyptian administration, maintains good relations with Canaan and has solid contact with Cyprus.\(^ {558}\) Also, Kabri is controlled by the Hyksos and some, yet limited contact between the Aegeans and Hyksos must have occurred via Cyprus, Kabri and the allies of the Hyksos in Syria-Palestine.\(^ {559}\) Although the Hyksos expand their culture, there is political fragmentation in Hyksos territories.\(^ {560}\) The diverse landscape in Egypt furthers Aegean contacts with the Hyksos, the indigenous Egyptians and their allies and opponents.

d) sixteenth dynasty: Thebes is in fragile independence, having no contact with

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\(^{556}\) (tables 29, 32)
\(^{557}\) Moeller and Marouard 2011: passim
\(^{558}\) (tables 29, 38a-c)
\(^{559}\) (tables 29, 32, 34)
\(^{560}\) (table 32)
lower Egypt, and contact with Memphis is limited. Because of warfare and recession, connections with the Levant are interrupted, but the Thebans maintain some contact with Cushite and Nubian forts. The sixteenth dynasty administration follows MK models (king, viziers, temples, fiscal system, etc.) and trade is monopolised by the king and his officials. Under these circumstances contact between the Thebans and the Aegeans is rather limited and indirect at the time.561

1600-1400/1350 BC

• Fragmentation and crisis in parts of the world system (Egypt, the Levant) create stability and progress in others: during these two centuries the Hurrians, Assyrians, Hittites and Mitanni expand their borders, urban centres in Cyprus thrive and Ugarit trades with both Egypt and the Aegean, bridging the two cultures. The introduction of new technologies, the need for raw materials, and vigorous inter-palatial diplomacy also encourage world system relations and bring the Aegean closer to Egypt.562

• On Crete, there are certain factors that boosted international trade at the time, encouraging a more direct contact with Egypt. In mid and late Neo-palatial Crete there was:

561 (tables 28-32)
562 (table 28)
i) major urbanisation but certain centres declined,

ii) further development of villas - nobles became more powerful,

iii) fragmented administration and a three-tier hierarchical model of sites,

iv) Knossos: religious, political, economic centre.

v) taxation or redistribution of goods from centres to peripheries,

vi) elite with religious, political, judicial and military duties: promotion of local and foreign diplomacy.

In short, all these factors assisted in the evolution of A-E relations, and it is not surprising that at least some, similar models are seen in Egypt at the time (regional rulers, three-tier hierarchical administration and polity, taxation, wealth accumulation, etc.) - although cultural and political change was unavoidable after the Hyksos were expelled from Egypt. The main difference is that before mid 16th century BC, any Minoan contact would be with the Hyksos in the Delta, along with contact with the indigenous Egyptians; since Egypt was still fragmented. And while the Hyksos were in the Delta, there must have been impediments in the Minoan contact with Middle and Upper Egypt, although the Minoans were still in touch with the Thebans - at least indirectly. Yet, after c. 1550, the Minoans dealt solely with the Thebans in Egypt.

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563 i.e. large central palaces and villas in regional centres ('little palaces')
564 (table 35)
565 compare (table 35) to (tables 32, 33).
566 As seen from the Cretan pottery discovered in Egypt; see the spreadsheet: 'Egypt (Kemp and Merrillees)'. Here, the differentiation between Hyksos and Egyptians is done with administration in mind. Even if a small Hyksos community remained in the Delta in the eighteenth dynasty (Bietak 2011b) they probably had to abide by the Theban administration. Of course the Theban administration in the eighteenth dynasty was remarkably different to the Egyptian administration in the Middle Kindom (see the Introduction: 'Some clarifications on terminology').
567 (tables 32, 34)
conclude, in those two centuries, the protagonists of A-E relations are the Minoans on one side, and the Hyksos and Thebans on the other.

- But in the Final palatial there were tremendous changes on Crete - changes that did not happen overnight.\textsuperscript{568}
  i) fragmentation
  ii) a Greek Mainland-derived elite at Knossos.
  iii) Mycenaean Greek administrative language (Linear B). Complex administrative system.
  iv) political and economic expansion of Knossos.
  v) Knossos is top of the tier in site hierarchy. Peripheral regions include Chania, Phaistos, Amnisos. Knossos maintains political and administrative control of peripheral areas indirectly, via second tier sites.
  vi) powerful regional elites, tied to central administration. Promotion of local and foreign diplomacy.
  vii) elite with religious, political, judicial and military duties. Minoan officials abroad. Trade overseers for special duties.\textsuperscript{569}

All these circumstances favour A-E relations and open new opportunities for Cretan diplomatic contact with the Egyptians.\textsuperscript{570} The main difference here is that the Thebans,

\textsuperscript{568} 'Mycenisation' strengthened over time, but it might have started before the Final Palatial period, since Neo-palatial graves at Poros present several 'Mycenaean' elements (Dimopoulou 1999: 29).
\textsuperscript{569} (table 34)
\textsuperscript{570} (table 34)
from some debatable point onwards, would have to deal with a Mainland-derived elite on Crete, although the Minoan cultural element is still present and active on the island. In short, the protagonists of Aegean relations at the time are both Minoans and Mycenaeans,\textsuperscript{571} who deal with the Thebans;\textsuperscript{572} and the developing involvement of the Cretan Mycenaeans in A-E relations opens new opportunities for a closer contact between the Greek Mainland and Egypt.\textsuperscript{573}

In conclusion, between 1600 – 1400/1350 BC, together with the political, economic and cultural transformation of the landscape on Crete, A-E relations followed various models, since Egypt was also changing at the time. The protagonists of Cretan-Egyptian relations were the Minoans and Mycenaeans on the island, and the Hyksos and Thebans in Egypt.\textsuperscript{574} It is worth mentioning that third parties (the allies / opponents of these cultures etc.) also encouraged indirect contact.\textsuperscript{575}

- But Mycenaean prosperity was unsurprising. Between MH III and LH II, on the Greek Mainland, particularly Mycenae, the following factors encouraged diplomacy with foreign lands.\textsuperscript{576}

  i) Political and economic fragmentation and regionalism, even though the system becomes more centralised after LH I. Autonomy of peripheries from the

\textsuperscript{571} (table 35) \textsuperscript{572} (table 33) \textsuperscript{573} (table 36) \textsuperscript{574} (tables 28-30, 33, 35, 40b, 41b) \textsuperscript{575} (tables 36, 38a-c, 39) \textsuperscript{576} (table 36)
core.

ii) expansion of political power and monarchy.

iii) rivalry for wealth accumulation, still evident among the elites, is now intensified.

iv) even more intense development of technology, and specialised labour production.

v) expansion, population growth.577

Therefore, particularly in LH I-II, the Greek Mainland develops solid communication with the rest of the Aegean and even controls certain Aegean regions. Diplomatic relations are crucial for the Mycenaean elite in order to maintain their power. Contact is also developed with the Near East and Mesopotamia. But until LH IIB, relations between the Greek Mainland and Egypt are generally minimal and indirect (mainly via Crete, after the Mycenaean 'infiltration' there), although Mainland Greece is emerging as a rival power, and Mycenaean – Egyptian contact becomes very intense in LH IIIA2.578

- In Cyprus, the palatial and extra palatial elite maintain control of the production and circulation of commodities and particularly metals, and participate in diplomatic exchange of luxury gifts. All social strata are represented but the elite

577 (table 36)
578 (tables 29, 36)
is particularly powerful at the time. The island is inhabited by multilingual, polyethnic groups; thus, foreign relations easily materialise. The island maintains relations with the Levant (especially Ugarit) and Anatolia. Cypriot - Levantine relations are excellent after c 1550 BC, and contact with the Aegean and the Near East is intense after c 1500. Hyksos, Thebans and Palestinians must have cemented agreements with the island in order to get access to copper. The Annals of Thutmose and the Amarna letters mention diplomatic and economic relations with Cyprus; there was certainly a Cypriot - Egyptian alliance from c 1450 BC. Apart from foreign relations at diplomatic level, Cypriot merchants and independent entrepreneurs operated after 1650 BC, even though copper was primarily controlled by the palaces. 

During these two centuries, the role of Cyprus is important in A-E interconnections as Cyprus links the Aegeans, first to the Hyksos, and then to the Thebans.

• In the Levant, the consumption of exotica and foreign insignia continues. Alalakh and Kabri have obvious relations with the Aegean (see frescoes), and Aegeans are present in the Levant. But after c 1550/1500, Levantine trade declines because of warfare and the rise of the Egyptian and Hittite empires. The local city-states have no political and military power and pay tribute to Egyptian rulers. No Aegean style frescoes are seen any more. Aegean - Levantine relations are indirect during these two centuries (especially via Cyprus), while, on the

579 (tables 38a-c)
580 (table 39)
contrary, Cypriot - Levantine interactions are direct. The decline of Levantine trade opens new opportunities for direct A-E contact.\textsuperscript{581}

- As mentioned previously, in Egypt there were major political, economic and cultural differences between the Hyksos and the Thebans.\textsuperscript{582} In the second half of the fifteenth dynasty, the Hyksos were already well established in Avaris controlling, via a complicated political and administrative system, regions in Egypt and Palestine (exact areas debatable), receiving taxation from these areas and expanding their borders. The Hyksos' close relations and alliances with Canaan and Cyprus probably encouraged indirect Aegean trade with the Hyksos, and if Kabri was under Hyksos administration at the time, the city's connection with the Aegean world would bring the two cultures together. Especially in the last decades of the Hyksos period there was intense trade with Cyprus. Thus it is not surprising that Aegean relations with the Hyksos - possibly encouraged by Cyprus - were becoming more intense before the fall of Avaris.\textsuperscript{583} The Hyksos needed to make the most of international trade, and an Aegean approach would be welcome. Although the Hyksos were allies with independent states in Syria-Palestine, trade with Syria-Palestine was problematic in the late Hyksos Period.\textsuperscript{584}

\textsuperscript{581} (table 39)  
\textsuperscript{582} (tables 28, 32-33, 40b)  
\textsuperscript{583} (tables 29, 38a-c). The Hyksos were multicultural and welcomed foreign relations. Avaris was a crossroads of cultures, as e.g. Philip (2006) and Forstner-Müller (2007, 2009) have demonstrated.  
\textsuperscript{584} (table 32)
Before the fall of Avaris, it was via the Hyksos that the Aegean culture could spread towards the south of Egypt and beyond, since Hyksos vassals were placed in Middle and Upper Egypt – even in Thebes.\textsuperscript{585} Even though trade with southern Egypt was frequently interrupted due to warfare, there were plenty of opportunities for cultural exchange considering that some peaceful periods were cemented by treaties. A Hyksos - Nubian (Kushite) alliance is also possible. Kerma was also on good terms with the Hyksos. Of course Aegean - Nubian relations were rather limited and indirect.\textsuperscript{586}

While the Hyksos were still in the Delta, the Theban seventeenth dynasty (northern border: Abydos, capital: Thebes), followed MK administrative models and the fact that its economy was developed is proven by the restoration of monuments and control of Nubian mines. Whereas there was generally little contact with Lower Egypt, relations between Thebes and Hyksos were peaceful before Seqenenra Taa, and in periods of peace, culture and products circulated freely. Still, due to the northern geographical impediments caused by the Asiatics, the seventeenth dynasty's connections with Crete and Cyprus were indirect, via the Hyksos or other allies, although it is possible that Aegean contact with the Thebans might have occurred as contact between Lower and Upper Egypt was not completely lost. \textsuperscript{587} The opportunity for Aegean culture and

\textsuperscript{585}{\textit{tables 30, 32}}. Such a practice had been operating since the beginning of the Hyksos Period. See Moeller and Marouard 2011: 103, 107, 109.

\textsuperscript{586}{\textit{tables 29, 32}}

\textsuperscript{587}{\textit{tables 30, 32}}
products to spread towards Nubia was open, since the Theban seventeenth dynasty was on friendly terms with the Nubian Pan-Grave people and the Kermans, and Nubian merchants even worked for Kamosse.

In the eighteenth dynasty, the expulsion of the Hyksos from the Delta gave the Aegeans the opportunity to deal directly with the Thebans, while A-E indirect contact via third parties, and especially the Levant, operated at the same time.\footnote{588} It is likely that Aegean relations with the Delta continued since even post-Hyksos, Hyksos culture was still evident in the region.\footnote{589} In any case, the Aegeans were attracted by the flourishing Egyptian economy,\footnote{590} the highly-sophisticated administrative system and the superpower that Egypt was becoming: already from the reign of Ahmose I, the Egyptians were controlling the mines in Nubia and major building projects were established. The Thutmoside period involved plenty of warfare and diplomacy that broadened the borders of Egypt.\footnote{591} Out of fear and respect for the Egyptians, such a successful expansionary policy could trigger A-E alliances. Economic progress also meant that the opportunity for freelance trade was increased, along with making Egypt more attractive to immigrants.

To sum up, from the previous examples it becomes apparent that certain patterns and

\footnote{588 (tables 28-30, 33, 34)
589 See Bietak 2001ib and the introduction: 'Some clarifications on terminology'.
590 (table 40b)
591 (tables 29, 33, 40b)
events encouraged A-E relations (e.g. kingship, elitism, urbanisation, trade, technological progress). Patterns and events that initially appear negative (e.g. warfare and elite rivalry) also stimulated A-E contact, as such factors broadened the opportunity for networking and diplomacy. Such patterns and events manifest the operation of the world system and define the payoff of the game. The previous examples also manifest how no zone (in WS) or player (in GT) remains unaffected by how other zones or players operate in the system / game.

3.2 Aegean ↔ Egypt: Trade and contact routes

350 miles of sea (i.e. the distance between Crete and Egypt) are crossed in three to six days in a sail vessel. Nonetheless, the trip Aegean ↔ Egypt (and sailing in the Mediterranean in general) was a long and dangerous one. By the second Millennium BC, Minoans and Cycladic people were accustomed to navigation and long-trip seafaring. Crossing the 'wine dark sea' was the only way of accessing resources from

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592 For how this is done, see chapter Two: ‘Characteristics and behaviour of the world system’ and ‘A five thousand year single world system’.
593 For how this is done see chapter Seven: ‘searching for equilibria in Aegean - Egyptian relations’.
594 Due to extreme weather phenomena, piracy, illness, etc. Menelaos states in Odyssey, book IV, 438: 'αὐθάρ ἐμοί γε κατεκλάσθη φίλον ἤπορ, οὐνικά μ’ ἀυτῆς ἀναγεν ἐπ ἡπεοδεά πόντον ἄγριπτόν' ἱέναι, δολιχην δόδον ἄργαλέην τε'. Translation: 'I was broken hearted when I heard that I must go back all that long and terrible voyage to Egypt'. Translation provided by the Internet Classics Archive; available online at http://classics.mit.edu//Homer/odyssey.html. For the 6-day trip see also Homer's Odyssey, book XIV: 245-258, the text and translation of which is provided at the very beginning of the introduction. The same impression is also received through the study of some Egyptian texts; for instance, the Report of Wenamun (see Simpson 2003: 116-123; Lichtheim 1976: 224-232) and Papyrus Lansing (reign of Senusret III) which mentions: 'The ship's crew, from every house of commerce, they receive their loads. They depart Egypt for Syria and each man's god is with him. But not one of them says 'we shall see Egypt again'. (Säve-Söderbergh 1946: 75-77).
neighbouring lands. Essentially, in the Neo-palatial Period, Minoan rulers nurtured their social advancement via the control of the seas. Egyptians, furthermore, were certainly confident sailing on the Nile; yet, they had also initiated long-distance maritime trips from late Predynastic onwards. During the Second Intermediate Period, Upper Egyptian seafaring in the Mediterranean Sea was probably interrupted or, at least, impeded, but the fifteenth dynasty Hyksos rulers maintained maritime activity with Syria, Cyprus and further. In the early eighteenth dynasty, though, after the fall of the Hyksos, Egyptian sea-power recovered and flourished, as indicated by written sources mentioning trade and military expeditions in Syro-palestine and Lebanon. By the reign of Thutmose III the Egyptians had established control of the overland trade route to Sinai and a blossoming maritime trading relationship with Lebanon, particularly Byblos.

Phillips states that the most sensible sea route for the Egyptians to reach the Aegean would be to sail anticlockwise: Egypt → coastline along the Levant → Cyprus →

596 'Wine-dark sea' is the English translation of the Homeric 'οἶνος πόντος', frequently mentioned in Homer's Iliad and Odyssey. See chapter Four: 'Terminology'.
597 Minoan thalassocracy: (table 28).
598 Gilbert 2008: 85-87. Gilbert's work is one of the latest studies in the field of Egyptian maritime sea-power. Säve-Söderbergh's work (1946) is also an excellent source of information on the topic (particularly with regard to texts); yet, a bit outdated nowadays. So is Landström 1970 to some extent. See also chapter 'Egyptian ships' in Wachsmann and Bass 1998: 9-38.
599 'Probably', but not 'certainly', because of the recent work of Moeller and Marouard (2011) which presents archaeological evidence that shows that Upper and Lower Egypt were not completely disconnected.
600 Gilbert 2008: 87, who also notices that '...the Hyksos rulers of Egypt maintained the Egyptian maritime forces' and that the Hyksos fleet declined at the very beginning of the New Kingdom (ibid).
601 Texts mention military / trade / booty expeditions in the reign of Thutmose I, Thutmose II, Thutmose III (e.g. texts Urk. IV, 9-10 and Urk, IV, 692-693 in Sethe 1927-1930 - more textual examples are provided in Gilbert 2008: 89-93) and of course Egyptologists are aware of Hatshepsut's expedition to Punt (see Bryan 2003: 234-235).
602 Gilbert 2008: 88 with extended bibliography. For historical issues, see (tables 28-33).
Anatolian coast → southern Aegean islands → Crete → Greek Mainland. Ships departing from the Aegean sailed reversely.\(^{603}\) Such an indirect trip, with plenty of intermediate stations, is confirmed by the Uluburun and Cape Gelidonya shipwrecks (though later in date), along with archaeological evidence of exotica across the course of the itinerary, where the ships must have anchored.\(^{604}\) To Cline, and Cline and Stannish, the Kom el-Hetan list provides a number of names of Aegean locations and a clockwise trip from, and to Amnisos, but it might also confirm that Egyptian ships visited the Aegean.\(^{605}\) Likewise, the Egyptian term 'kftiww' ('Keftiu ships'), i.e. ships that reached Crete.\(^{606}\) Other than this, the author recalls the fleet fresco from Thera,\(^{607}\) the flotilla destination of which currently remains under discussion,\(^{608}\) also, possibly a scene in the tomb of Kenamun.\(^{609}\) Two model ships that have been characterised as 'Aegean' should also be acknowledged: one from late eighteenth to nineteenth dynasty (or later) Gurob tomb 611,\(^{610}\) and, most importantly to this research, Ahhotep's silver model ship.

\(^{603}\) (map VIII). Phillips 2010: 824. Kemp and Merrillees (1980: 275-276) and Gilbert (2008: 93-4) also discuss this possibility. This itinerary was first suggested by Vercouterr 1956 and Schachermeyr 1952-53. The trip was over 1,500 km long and it took more than 12 days (Karetsou et al. 2000a: 14).


\(^{605}\) Cline 1987, 1990, 2011 and Cline and Stannish 2009: 9. The anti-clockwise trip is suggested on the basis of the order of names of the geographical regions. Text {23} is also discussed in chapter Four, with the texts.

\(^{606}\) a seagoing ship (Wb 5, 122.6, Jones 1988: 149 / 80). See the term 'Keftiu ships' in chapter Four; 'Texts', along with texts {1}, {2} in the appendices.

\(^{607}\) (pictures 111, 112) and note 1181.

\(^{608}\) See note 1181 and [K117].

\(^{609}\) Kemp (189; 253) mentions that a scene in the tomb of Kenamun (TT 162) depicts both Syro-Canaanite and Aegean (?) ships. The depiction of Aegean ships in the scene is problematic, as many researchers only see Syrian ships and not Aegean (see e.g. Davies, N de G. and Faulkner 1947; Wachsmann 1998: 42; Gilbert 2008: 62). Even so, the depicted Syrian ships might anchor in Aegean ports.

\(^{610}\) Wachsmann 2012: passim, for the Gurob ship-cart model and its Mediterranean context.
The indirect Aegean ↔ Egypt cyclical route was preferable; especially in the first half of the Second Millennium BC. Byblos and Cyprus must have played a crucial role in this itinerary, for both Aegeans and Minoans.\textsuperscript{612} The direct Aegean ↔ Egypt route also needs to be considered. Such a trip is strengthened by verses in the Odyssey and the educational letter to Merikare.\textsuperscript{613} The direct route from Crete to Egypt has been considered likely according to Vercoutter.\textsuperscript{614} Phillips adds that the anticlockwise route of Egyptian ships might have continued back to Egypt, though sea current movement is against direct travel from Crete to the Delta.\textsuperscript{615} Kemp and Merrillees also discuss the direct route from Crete to Egypt suggesting two case scenaria: a) coast of Crete → Nile Delta → Memphis (?), Avaris (?), or towards some other place or an inland gateway; b) Crete → Cyrene (Libya) → along the North African coast → Nile Delta and further.\textsuperscript{616} Nonetheless, the Etessian north winds,\textsuperscript{617} blowing from May to September, would make a direct trip from the coast of Africa to Crete extremely difficult to impossible; plus

\textsuperscript{611} See Wachsmann 2008 and 2010 respectively. Also [M1009] on the spreadsheet. For Ahhotep see the Annex: 'Aegean and Aegenising items unearthed in Egypt': Avaris'.
\textsuperscript{612} According to Phillips 2010: 824-826.
\textsuperscript{613} see Lichtheim 1973: 97-106 and the text from the Odyssey in the opening of this thesis. The educational letter to Merikare mentions: '...the inner islands are turned back and every man within the temples say You are greater than I.' (see Lichtheim 1973: 97-106 and particularly page 103, strophes 84-85). In these examples the 'Great Green' (here: 'inner islands'; see chapter Four) equals 'the sea' in general.
\textsuperscript{614} Vercoutter 1956: 235
\textsuperscript{615} Phillips 2010: 825
\textsuperscript{616} On the possible Minoan routes to Egypt see Kemp and Merrillees 1980: 268-271. Cyrene had developed a particular connection with the Aegean, to recall the Theran colony Κυρήνη (Cyrenaica) established c 630 BC., but could these relations have been developed a lot earlier? This 'direct route' (Crete → Libya → Delta), might also explain the positioning of Naucratis on the west side of the Delta. See note 79 and 'Prw-nfr' discussed in chapters Five, Six and Seven. See in particular, chapter Five: 'The Aegean interactions with Avaris addressed historically'.
\textsuperscript{617} (map VIII)
seafaring west, along to the African coast, and then north to Crete would not be possible without the invention of the 'brailed sail', according to Phillips. Therefore, such a route appears more plausible in the second half of the Second Millennium BC, rather than the first half. In reverse, in the Summer months, the direct seafaring from Crete to Egypt was assisted by the Etesian winds, otherwise the indirect route had to be taken.

In the Autumn, the Egypt → Aegean indirect itinerary would have occurred through the Syro-Palestinian coastal route, which benefited from northerly currents. The author, researched the local winds, and concluded that: I) Khamsin, a hot southerly wind, blowing from the south / south-east, from March to May, certainly affected the direct and indirect seafaring from Egypt to the Aegean. II) Scirocco, the southerly dust-bearing wind blowing from the central-North African coast in Spring and early Summer, must have assisted the direct trip from the coasts of Libya to Crete. In conclusion, seafaring could be, altogether, direct and / or indirect, depending on the circumstances, time of the year, weather phenomena and needs of the trip.

618 Phillips 2010: 825. The Etesian north winds blow in the Summer months, from mid May to mid September. The Greeks call them 'μελτέμια'. For the brailed sail illustrated in Amarna Period iconography see Vinson 1994: 42-43. It is not unlikely however that the brailed sail was introduced before the Amarna Period (see the discussion in Wachsmann 1998: 252-253).
619 Kemp and Merrillees 1980: 269.
620 ibid
621 Khamsin is a hot dusty wind blowing over North Africa (mainly affecting Egypt), around the EM and the Arabian Peninsula and over the red Sea, for about fifty days (Khamsin / خمسون = fifty in Arabic), commencing about the middle of March and stopping in May or early June. Less frequently the khamsin might also occur in winter as a cold, dusty wind.
622 Scirocco (otherwise named Ghibli by the Libyans) occurs in central-North African coast throughout the year, but most frequently in spring and early summer. For the Etesian winds, Khamsin and Scirocco see the terms on Weather Online http://www.weatheronline.co.uk/reports/wind (last visited in January 2014).
3.3  Aegean ↔ Egypt: Cross-cultural transmissions

The term 'transculturalism' demonstrates the concept that cultures are shaped by consecutive interactions and overlapping political affairs; ergo, as cultures develop in time, they are transformed through specific and distinctive actions within the world-system frame. Interactions between Egypt and Crete took various forms: product exchange and exchange of technical / technological knowledge, iconography, religious / cultural symbolism and magical-scientific knowledge. Diplomacy and exchanged items, beliefs, technology and culture, all expose the uniqueness of A-E relations.

The following pages present a brief historical overview of how Egypt influenced the Aegean and vice versa, and serve as an introduction to chapters Four to Seven and the Annex, in which, the archaeological evidence is discussed in greater detail. The conclusions about the finds are provided in chapter Seven (after all case-studies have been examined) and, by individual group type in the Annex, in which some statistical results are also provided.

3.3.1  Egypt to the Aegean

623  [§ transculturalism]. The author defines the term on the basis of how she understands it and adjusts it in the WS framework. To Panagiotopoulos, transculturalism is the capacity of one individual 'to free themselves from their own culture and acquire several cultural identities' (Panagiotopoulos 2011: 36). 624  Including the Avaris frescoes and the Aegean processional scenes in Thebes.
As mentioned earlier, C-E interactions are initiated in the Third Millennium BC. As (tables 44a,b) show, the character of A-E liaison is already political, social, economic and cultural. One notices that Egypt receives fewer Minoan influences in contrast to Crete, which imports Egyptian items and ideas, though, in most cases, transmission is indirect, rather than direct.

Of course, evidence is partly lost. Some exchanged items were perishable or semi-perishable (e.g. foodstuffs, herbs, ointments, textiles, live animals, etc.) but these must have crossed the sea bidirectionally from the Third Millennium onwards. Tracking raw materials is slightly safer archaeologically, but in certain cases the origin of a material from Egypt - or elsewhere - cannot be confirmed with certainty. Yet, there are a few suggestions about imported Egyptian raw materials to the Aegean in the Third and Second Millennium BC: these include, but are not limited to, faïence and 'Egyptian blue', hippopotamus (from EM IIA) and elephant (from LM I) ivory, gold, ebony, tridacna shells and precious / semi-precious stones such as carnelian, garnet, amethyst,

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625 The two tables illustrate both the nature and exchanged items of the early contacts. These 'early' relations are briefly examined in the Annex, with a few examples. See group 'some early artefacts'.
626 See is evident from the study of the Annex and the spreadsheet. This happens already from the Third Millennium BC, but overall, based on archaeological material, the situation is similar in the Second Millennium BC. Burns discusses how the arrival of goods and technologies from the Near East increased social stratification on Crete (Burns 2010: 291-292). See also (table 27) and chapter Four: 'Some early artefacts'.
rock crystal, alabaster, malachite and jasper; and occasionally their technology. These materials reach Crete in crude form, or as crafts. Egyptian vessels exported to the Aegean possibly contained wine and oil, aromatics, pharmaceuticals and ointments. Linen and Egyptian papyrus must have also reached the Aegean, though they have not survived. Imported ostrich eggshells (probably Egyptian) were imported from EM IIB / III. These were later (LM I / LC I) converted into rhyta.

During the Proto-palatial, exchange and diplomatic contact between Crete and Egypt

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628 Karetsou et al. 2000a: 15; Warren 1995: 1; 2000: 27-28. These materials are examined in Lucas 2003: 179-192 (faïence) 45, 416, 418, 513, 531 (ivory); 257-267 (gold); 494-496 (ebony wood); 57, 85, 151, 448, 482 (carnelian and carnelian vessel); 153, 445 (amethyst); 181, 192, 211, 272, 247 (rock crystal); 404, 418, 447, 463, 82, 481, 486 (alabaster and alabaster vessels); 140-141 (jasper); 456-458 (malachite); 216 (‘Egyptian blue’). See also: Nicholson and Peltenburg 2000 (faïence); Krzyszkowska 2007 (imported ivory from Mycenae, and hippopotamus lower canine: particularly pages 36-48); Krzyszkowska and Morkot 2000 (ivory); Ogden 2000: 160-170 (gold); Gale et al. (2000): 338-339 (ebony wood); Aston et al. (2000) for the precious and semi-precious stones (carnelian, jasper, malachite, etc). Note that the origin of materials with a question-mark is problematic. Sard (carnelian) comes from Upper Egypt and the Eastern Desert. Jasper may have come from Egypt, but rock crystal can also be mined on Crete (see Karetsou et al. 2000a: 106-107). Gold was mined by the Egyptians and Nubians in large quantities throughout the Bronze Age, therefore, one assumes that some gold from Egypt must have reached the Aegean (see esp. Colburn 2011: passim), yet, silver, lead and small quantities of gold must have also reached the island from the Mainland. Hippopotamus ivory was exported to Crete from Egypt and Syria (Karetsou et al. 2000a: 85, 93; Warren 1995: 5-6; 2000: 25; Dickinson 1994: 248; Treuil et al. 1996: 336) For the use of these materials for bead making see Phillips 2008: vol. 1: 140-147.

629 For the transmission of technological knowledge along with imported materials from Egypt see e.g. Evely 1992; Krzyszkowska 1988 (ivory carving) and the Sheffield edition of Jackson and Wager 2008 (vitreous materials). Imported technology from Egypt to the Aegean is also discussed in thematic units (by type of material) in Phillips 2008, vol. 1., with extended references. The transference of technology is also discussed in the Annex: see e.g. group 'faïence, Egyptian blue and glass vessels'.


631 See the catalogue in the appendices for the possible uses of vessels / containers. See also Phillips 2008: vol. 1: distribution maps 2-13 for the distribution of vessels on Crete in the course of time.


633 For ostrich eggshells see Phillips 2008: vol. 1: 148-152; 2009: passim. The possible origin of these eggshells (Egyptian or other) is discussed in detail in the Annex.

634 See, for example, the ostrich eggshell and faïence rhyta [K18a,b] from Thera. See also Phillips 2008: vol. 1: distribution maps 23-24 for the distribution of ostrich eggshells on Crete over the course of time (Phillips provides more examples from Crete). Ostrich eggshells are discussed as a separate group in the Annex: the ‘ostrich eggshells’ group.
demonstrated a development in stages. This is an era of interaction between Minoan and Egyptian art (i.e. Egyptianising frescoes, pottery and jewellery from Minoan workshops).\textsuperscript{635} Middle Kingdom Egyptian scarabs reached Proto-palatial Crete and their local copies are found scattered around the island.\textsuperscript{636} An Egyptian statuette mentioning a certain Egyptian named User has been unearthed at Knossos, in a MM II context.\textsuperscript{637} Egyptian stone vessels and their imitations also appeared on Crete.\textsuperscript{638} These were not containers and may have functioned ritually.\textsuperscript{639} From MM IB (?) /II Egyptian amethyst was exported to the Aegean. It was used for jewellery, along with other hard stones.\textsuperscript{640} MM II Malia had well-documented relations with Egypt. Art and pottery at Malia received Egyptian influences.\textsuperscript{641} In MM IB / II, most of the Egyptian items reached the island via ports on the southern coast (e.g. Kommos).\textsuperscript{642} On MM Crete, exotica from Knossos are fairly balanced in comparison to exotica unearthed in the Messara tombs, and along these lines, the palatial control of the long-distance trade routes ranges from problematic to doubtful.\textsuperscript{643} The absence of exotica - Aegyptiaca in particular - in the first palace of Phaistos also supports the theory that long distance trade was not under

\begin{footnotesize}
\textsuperscript{637} See entry [P158] in the catalogue and Karetsou et al. 2000a: 47, 61-62 [39] for a coloured picture. The item is also discussed in the Annex, with the 'Artefacts with names of Egyptian individuals'.
\textsuperscript{638} See Phillips 2008: vol. 1: 59-63 with examples.
\textsuperscript{639} According to Phillips 2008: vol. 1: 63; 2010: 824-826. See also the discussion of 'stone vessels and containers' in the Annex.
\textsuperscript{640} Amethyst was mined in Upper Egypt from the eleventh dynasty onwards (Lucas 2003: 153, 445). See previous paragraph for hard stones used for beading. For the use of these materials for bead making see Phillips 2008: vol. 1: 140-147; for a few examples of jewellery with coloured pictures see Karetsou et al. 2000a: 106-131.
\textsuperscript{641} Warren 1995: 3; pl. 11, 2; Dickinson 1994: 244; Karetsou et al. 2000a: 47, 56-58 [30-35]. For example, see [P381], [K33], [P375], [P372] and [P374] and further examples and Egyptian / Egyptianising items in Phillips 2008: vol. 2: 182-192.
\textsuperscript{642} For Kommos see note 653.
\textsuperscript{643} Lambrou-Phillipson 1990; Wiener 1991.
\end{footnotesize}
palatial control. The route from the south coast of Crete to Egypt (rather than exchange by way of the ports in the north of Crete) is demonstrated not only in the plethora of Aegyptiaca in Messara; but further, by the rarity of Aegyptiaca in the Cyclades at this time.

Relations between Avaris (the Hyksos capital) and Crete are documented in artefacts such as the lid of fifteenth dynasty king Khyan found on Crete. In MM III- LM IB, Crete was in direct contact with Cyprus; it is certain that Cyprus was a shipping station from, and to Egypt, playing the role of intermediary between the two regions. After the fall of Avaris, in the early eighteenth dynasty, relations did not end but continued to intensify. Keftiu were mentioned in Egyptian documents. Cline states that by LM I-II, Egyptian objects comprised the vast majority of the orientalia in Egypt. In LM IB, Early Dynastic / Old Kingdom stone jars and Second Intermediate Period alabastra which Crete imported (the last from MM IIIB), were modified according to Minoan aesthetics and copied by local workshops, occasionally in clay (in LM IB only).

644 Carinci 2000
645 Betancourt 2008: 216.
647 Toumba tou Skourou in Cyprus has produced plentiful Minoan pottery and it is likely that this site functioned as a Minoan emporio (Vermeule and Wolsky 1990). Additionally, the interactions in the writing system (Linear A - Cypro-Minoan script) demonstrate the close association of Crete with Cyprus (Faucounau 2007). Moreover, significant amounts of Cypriot pottery have been unearthed at Tell el Dab'a (Maguire 1995; 2009).
648 See chapters Five and Six.
649 See chapter Four: 'Texts'.
650 Cline 1994: 32, 34; other comments on direct or indirect seafaring and contacts between Egypt and the Aegean have been expressed by Lambrou-Phillipson 1991b: 11-19.
651 Phillips 2010: 826. The modification of Egyptian vessels only occurs in Neo-palatial Crete. For stone vessels see Phillips 2008: vol. 1: 37-79. For the modification of Egyptian vessels according to Minoan taste, occurring only on Crete, see Phillips 2010: vol. 1: 80-89 with numerous examples. These modifications are also discussed in the Annex, where the author provides her own view of the matter. For Egyptian ceramics and replicas / imitations of Egyptian vessels in clay see Phillips 2008: vol. 1: 100-107 and [P8]. Such modified vessels are [P105], [P241] and [P242] in the catalogue.
Palaikastro Kouros, artistically influenced from Egypt, belongs to the same period (LM IB). An amphora bearing an inscription with the epithets of Thutmose III was unearthed at Katsamba in a LM II - IIIA1 context. While Crete was associated with Egypt, Egyptian -ising items unearthed in the Mainland are problematic in date, context and Egyptian -ising character. Egyptian imports appeared on the Greek Mainland in LH I (via Knossos).

Exchange was not only economic but also cultural. Similarities between the freshly-introduced Linear A and Minoan hieroglyphic to the late Middle Kingdom Hieroglyphic script are limited; thus, their association is unsure. Examples of Egyptian influence on the Aegean can also be drawn from architecture, especially when it is elite or palatial in character. Fluted or channelled columns, e.g. in the Little Palace of Knossos, may be...

652 For the Palaikastro Kouros see the appendices [K294] with further references and MacGillivray et al. 2000. The Kouros corresponds to (pictures 95-98).
654 See [P114] and its references, (pictures 87-89).
655 Phillips 2010: 826. The Minoan Genius was introduced to the Mainland by LH IIA (for the Minoan Genius see the relevant group in the Annex, with examples of finds).
656 Bernal even suggested similarities between the cult of Egyptian bull Min and that of the Greek lecherous goat Pan; between the typology of the name Min and that of Minos, who was according to Hesiod, a Cretan king and lawgiver; and between Egyptian god Mont and Rhadamanthys, the king's brother (Bernal 1991: 166-176). These concepts need to be carefully approached and re-examined.
657 It appears that the scripts were developed locally and individually, without direct inter-influences. Karetsou et al. 2000a: 76-79 (59, 60). Also, see Evans 1909: table XVI, picture 105.
658 This thesis will not expand on the Egyptian influences on Minoan architecture. The reader may wish to consult the work of Hitchcock (2010; 2012) which discusses architectural influences in the palaces, from Egypt and the Near East. See also Graham (1970: passim) for the Egyptian features at Phaistos. Moreover, the 'labyrinth' idea is conceived in both Crete and Egypt, with Amenemhet III's 'labyrinth' stated by Herodotus (Herodotus, the Histories, Book II > Sélincourt 1954: 160-161) to be placed in...
an Egyptian inspiration. Preziosi has even argued that some Minoan builders must have received training in Egypt. Building techniques from Egypt were also introduced: e.g. the Egyptian stone cutting technique of levelling walls 'en masse', or gypsum veneering. Moreover, some influences from Egypt may be seen in Minoan funerary architecture, e.g. in the 'Temple Tomb' of Knossos.

Pictorial motifs in Crete were influenced by Egyptian art. The 'Genius' and 'squatting monkey' images first appear in Cretan art in MM II. The Genius became very popular in Final and End palatial Crete. The ape image was widespread in Neo-palatial Crete, but declined in the Final Palatial period.

In the Aegean the gravidenflasche image is found not only in vessels, as in Egypt, but

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660 Preziosi 1983

661 See Nelson 2003 for Levelling Ashlar Walls en masse. An explanation: the term en masse signifies that the builders trimmed down the top of an entire course after it had been laid, rather than in individual blocks. Gypsum veneering is seen at Haghia Triada, Phaistos, Nirou Chani, and Pyrgos-Myrtos (Graham 1987).

662 Whether the Temple Tomb at Knossos has received Egyptian Middle Kingdom influence remains problematic (see Pini 1968: particularly fig.36; Jarkiewicz 1982: 491).

663 Watrous 2001: 213

664 [§ Genius, § Daemon]. See the groups 'Egyptian standing hippopotamus deity and Minoan Genius' and 'the ape image' in the Annex.


666 See Phillips 2008: vol. 1: 174-180, and the 'ape image' in the Annex, where examples are provided. There is also a MMIIIB(?) seal from Petras (examined by Weingarten 2013) with a figure that resembles the Egyptian goddess Beset. See the miscellaneous items on the Annex for details.
also in other artistic media. Another image which became popular in the Aegean (from portable items to painting) was that of the cat. The image of waterbirds, which was popular in Egyptian art, is also seen in Neo-palatial Crete. Moreover, a few items manifesting the crocodile image have been unearthed on Crete.

Aegean and Egyptian wall painting themes and techniques also interact with each other throughout the course of time. The wall-painting of the 'Captain of the Blacks' portrays Africans. Striking are the similarities in the male and female skin hue used in Aegean and Egyptian art. Bulls and acrobats, typical of Knossos, appeared in the Avaris frescoes. Monkeys and baboons were painted in Cretan, Theran and Melian frescoes. Felines were a common Aegean and Egyptian theme in painting and art. Flora and fauna from Egypt were copied in Aegean murals. The epithet 'Nilotic' refers

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667 See Phillips 2008: vol. 1: 215-217, and the 'gravidenflasche and partirient images' in the Annex, where examples are provided.
668 See Phillips 2008: vol. 1: 193-206, and the 'cat image' in the Annex, where several examples are provided.
669 See Phillips 2008: vol. 1: 183-192 and the 'waterbirds image' in the Annex, where examples are provided.
670 See Phillips 2008: vol. 1: 207-213 and the 'crocodile image' in the Annex, where examples are provided.
671 (picture 115)
673 See note 1340
674 See chapter Five and Appendix Four.
675 e.g. [P180], (pictures 107, 108). Such is the wall painting with blue monkeys and birds from Knossos (MM III-LM IA). See Karetsou et al. 2000a: 298 [293] (E.Mr.) for a coloured picture of this fresco and further references. Moreover, see the apes fresco from the Room of the Saffron Gatherer (palace of Knossos) in Phillips 2008: vol. 2: 95 [161]; and Hood 1978, 48 and fig. 27-28. For the Melos ape iconography see Morgan 1990; 1996; 2004; 2005. For the Thera Blue Monkeys fresco (House Beta) see Marinatos, N. 1998 and Davis 1990: 218: fig. 5; and also the 'monkey in a shrine' from Thera, in Marinatos, N. 1987: passim.
676 See Catalogue entries in the appendices [P381], [P575], [P9], [P63], [P107], [P319], [P525], etc. and Morgan 2004. It is likely that wild animals were transported from Egypt to the Aegean and that exported animals had probably inspired the monkeys and antelopes scenes in frescoes in Crete and Thera (Rehak and Younger 2001: 431; Karetsou et al. 2000a: 81; Warren 1995: 6-7; 2000: 27-28; Cline 1994: 31).
677 (pictures 105, 106)

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to scenes of exotic landscapes consisting of flora and fauna of reputedly Egyptian origin, inspiration and composition.\textsuperscript{678} Still, distinctive individual elements of Aegean Nilotic scenes go back to Egyptian prototypes.\textsuperscript{679} Nevertheless, Aegean Nilotic scenes were not a mere transcription of Egyptian examples. Aegean artisans received Nilotic iconography from Egypt, modified it according to local artistic taste and later redistributed and circulated it in the EM, including Egypt itself. Nilotic landscapes in the Aegean were not only limited to painting influences in frescoes.\textsuperscript{680} They expanded to other artefacts, such as decorative elements, pendants, seals, etc., in which the impact of Nilotic flora and fauna is explicit.\textsuperscript{681}

To the author, overall, Nilotic compositions in Minoan Art are not a simple borrowing from Egypt; the reality is in fact more complicated. The transition and circulation of Nilotic landscape iconography demonstrates direct contact between Minoan / Aegean and Egyptian artistic tradition. It also displays a special relationship between the agents

\textsuperscript{678} See (picture 175) [M1005 to M1008]. These scenes include a wide representation of themes, from cats stalking birds to riverine scenes (picture 106), exotic flora and fauna, griffins, hunting, etc. For the Nilotic iconography in the Aegean, see Cameron 1968; Warren 1976; Doumas 1983; Morgan 1990; 1996; 2004; 2005; Marinatos, N. 1998 and Marinatos and Morgan 2005; and Laffineur 1998: 64-67; all with plenty of iconographic examples of Nilotic scenes from Crete, Thera and elsewhere. See, for example, the riverine scene with a griffin and feline chasing birds, from Thera West House (Doumas 1992, figs. 28-48; Pls. 1-3). A recent publication on the 'landscape' in the Aegean painting iconography; and a comparative study of this iconography with Egypt and the Levant is the work of Komninos 2011.

\textsuperscript{679} For the Nilotic iconography in Egypt, see Wild 1953: pl. LXXXII-LXXXIII, CXV-CXVI and CXIX (Tomb of Ti, fifth dynasty) for an Old Kingdom example; Blackman and Apted 1953 (V): pl. XXIV, XXVIII; (VI): XIII for Middle Kingdom examples; and for eighteenth dynasty Nilotic scenes see for example, the hunting / fishing and the cat stealing the eggs of waterbirds in the tomb of Menna (TT 69) [M1006] (Smith 1965: pic. 51B, centre) (picture 109); the march scene in the tomb of Kenamun (T 93) [M1005], [M1007] (Davies 1930: 35-36, pic. 51); and the hunt scene in the tomb of Antef (TT 155) in Kantor 1947: 106-107; Wilkinson and Hill 1983: 76-77 and Karetsou et al. 2000a: 285 [284] (P.B.). In Egypt, Nilotic scenes become very frequent in the early New Kingdom. See also Bietak et al. 2014a.

\textsuperscript{680} (pictures 106, 110)

\textsuperscript{681} e.g. [K81a-c] in the catalogue.
(artisans and patrons) of these regions; a relationship which is confirmed by the
discovery of Minoan frescoes at Avaris and the regular exchange of diplomatic gifts, as
displayed in the eighteenth dynasty Aegean processional scenes in Thebes.682

Because of space limitations, it is impossible to thoroughly discuss relations between
Aegean and Egyptian cult, religion, cosmology and magic; yet, this extensive topic is
examined in depth by various researchers, collectively or in thematic units.683 The
appendices contain a very elementary schematic diagram of only a few of these links
(table 45). Some discussion is also provided in the Annex, along with the presentation
of the groups of artefacts.684

3.3.2 The Aegean to Egypt

Perishable materials transported from the Aegean to Egypt cannot be easily confirmed
archaeologically. Some foodstuffs must have been imported; olives and olive oil among

682 See chapters Five and Six. The following are, in the author's mind, some of the reasons why Nilotic
scenes inspired Minoan Art: a) The appeal of the exotic: Nilotic scenes demonstrated a particular
theatrical and narrative aspect and may have functioned as an 'imaginarium', i.e. an area intended for
deeper role-play. While the scenes came off as elaborate frescoes on the walls of the Aegean building,
the decorated rooms functioned as a portal to exotic foreign lands. Similarly, any item inspired by
Egyptian Nilotic scenes received a special value. b) Nilotic scenes bore a particular symbolism and
significance (e.g. power over nature and people, fertility, afterlife, cultural rituals and practices) which
was equally well-received in the eyes of both Egyptian and Aegean beholders. c) Minoans and Aegean
Islanders visited Egypt regularly; they were enchanted by the beauty of the Nile and it is likely that
they even settled in the Nile Delta (see below, chapters Four, Five and Six and particularly Seven).
Travelling artisans carried artistic trends from the Aegean to Egypt and vice versa (for travelling
artisans see chapter Five and [§ travelling professionals]).

683 See the works of Marinatos, N. 1993; 2007a; 2007b; 2010a,b; Banou 2008; Watrous 1992, to name
but only a few.

684 The author hopes that she will study some of these topics in the future, on another occasion.

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them.\textsuperscript{685} Pharmaceutics, cosmetics, ointments, aromatic substances and herbs were also shipped to Egypt.\textsuperscript{686} Possible exported material included lichen; cypress wood and other types of wood such as pine and cedar.\textsuperscript{687} Agrimi horns from Crete were said by Wachsmann to be used for Egyptian weaponry.\textsuperscript{688} Textiles and wooden chests for textiles were also exported to Egypt from the late Pre-palatial period onwards.\textsuperscript{689} Whether wool was transported there is still problematic.\textsuperscript{690}

A group of artefacts, the so-called 'treasure of Tôd',\textsuperscript{691} was discovered in 1936 in the foundation sand of the Middle Kingdom temple of Montu, about twenty kilometres south of Luxor. The objects were placed in four copper chests, among which two were engraved with the name of the Pharaoh Amenemhat II, the third Pharaoh of the twelfth dynasty.\textsuperscript{692} The treasure consists of gold and silver items and lapis lazuli (raw, or in the

\textsuperscript{685} For the usage of olive oil in Egypt see Lucas 2003: 386-389; Murray 2000: 614. Olive pits are discovered in thirteenth dynasty Memphis (see Murray 2000: 614). An olive tree is pictorially depicted in Amarna wall-paintings (see Frankfort 1929, pl. IX.C). For olives as greeting gifts between Mycenae and Egypt see Kelder 2009.

\textsuperscript{686} See for example, the reference to a certain 'Kefiu bean' in Papyrus Ebers (it is discussed with the 'texts' in chapter Four). Karetsou et al. 2000a: 16; Cline 1994: 109 (A9); Arnott 2004: 167. The London Medical Papyrus also records a Keftiuan remedy; Aegean medical knowledge was transferred to Egypt. See Strange 1980: 99, Vercouter 1956: 82-85, Warren 1995: 7 and texts {4}, {5} in the appendices. Phillips (2010: [828]) states that stirrup jars were used for the transportation of ointments, aromatic substances and pharmaceutics from the Aegean to Egypt. For perfumed oils see Knapp 1991: 41-42.

\textsuperscript{687} See Gale et al. 2000: 350 for Cypress wood in Egypt and Samuel 2000: 559 for lichen. Lichen could be used for brewing alcoholic beverages and as a natural antibiotic. For other types of wood and for the š-wood see chapter Four and the spreadsheet: 'Texts'.

\textsuperscript{688} Wachsmann 1987: 78-92. \textit{Capra aegagrus cretensis} are typical on Crete, even nowadays. See also [P575] for a depiction of an agrimi on a MM II seal.


\textsuperscript{690} Barber 1991: 351. Wool has been discovered at Lahun and Amarna (Kemp 2001: 38, 42, 54); a low spindles whorl has been discovered in New Kingdom Gurob tomb 11, along with Aegean pottery, to make Barber claim that the tomb belonged to an Aegean emigrant (ibid) and that there must have been Aegean / Minoan textile makers in Lahun. For wool in Egypt see also Vogelsand-Eastwood 2000: 269.

\textsuperscript{691} (picture 92)

\textsuperscript{692} For chronology, see (table 17a).
form of beads and cylinder seals). The discovery raised the question of the exact origin and date of the 153 silver jars of the Tôd Treasure. Their origin is still problematic. So far it has been suggested that they are either Near Eastern, Syrian or Minoan, or they came from the Greek Mainland.

Minoan / Aegean pottery is unearthed in Egypt, in tombs and elsewhere, along with other items (miniature boats, pendants, jewellery, etc.). MM IB / II (Kamares) and LM IB ware, imported for their own sake, have been discovered in sites between the Delta and north of the First Cataract. Not only Kamares sherds have been unearthed at Lisht, Harageh, Lahun, Abydos, areas of Assuan, etc. but evidently, this type of import was also popular enough to be imitated by the Egyptians. Besides, some middle and New Kingdom vessels bear Aegeanising decorative elements. Metal vessels must

693 Karetsou et al. 2000a: 68-75; Treuil et al 1996: 218; Warren, 1995: 3. A pierced seal, from the same treasure, depicting a bee / wasp on the one face and three spiders on the other, is said to be possibly Minoan (see Aruz 1995: 55-56, figs. 7 and 9). This has been compared to a Phaistos seal demonstrating a bee (see Aruz 1995: 36, fig. 9), the face of a scarab from Riffeh (ibid: 35, fig. 7), the famous pendant from Malia (picture 52) and the Bee-headed goddess / priestess gem from Knossos, the last mixing iconographic and cultural elements of the bee, bull and sphinx image in a cosmopolitan manner (see Dimopoulou-Rethemiotaki 2005: 340). The bee was a cultural and artistic koiné in the EM and beyond.


695 See the Annex: 'Aegean and Aegeanising items unearthed in Egypt'. The study of pottery in this thesis is limited from c 1900 to 1400; therefore, no Aegean pottery from Amarna will be seen here, even though there is a modest number of LH IIIA2 examples from Amarna, but certainly worthy of consideration (Petrie 1894).

696 Kemp and Merrillees (1980) have studied MMIB / MMII pottery imports in Egypt. For examples of LM IB pottery discovered in Egypt see the following chapter: "Minoan / Aegean items unearthed in Egypt".

697 Dickinson 1994: 243, 244; for example, see Karetsou et al. 2000a: 50-51 (26, 27α-γ from Lahun); Callender 2003: 166; Watrous 2001: 212.

698 See the Annex: 'Aegean and Aegeanising items unearthed in Egypt' for a few examples.
have also been transported to Egypt. Similarly with Mycenaean pottery: Egyptian potters reproduced Aegean conical rhyta throughout the eighteenth dynasty and stirrup jars from the reign of Thutmose III to the twentieth dynasty.  

At Tell el-Dab'a, the frescoes appear typically Minoan and Minoan /-ising items are unearthed; frescoes and portable finds demonstrate that the site associated with the Aegean both while the Hyksos were there and after the fall of the citadel to the Egyptians (early eighteenth dynasty). It is true that compared to the number of Aegyptiaca discovered on Crete and the Islands, Minoica and Aegeaca in Egypt are restricted to smaller numbers. It is certain, however, that the Aegeans transported their products to the Egyptian court. Their wares are recorded pictorially in the Aegean processional scenes in Thebes (early eighteenth dynasty) and they include a large variety of items, from pots to necklaces and from statuettes to copper ingots and swords. The Keftiu (Cretans), however, are completely absent from these scenes after Thutmose IV. The latest Keftiu tomb paintings can be associated with a number of Minoan objects found in Egypt.  

Additionally, Egyptian art has received some influence from Aegean art, in particular

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699 This conclusion is gathered from the Aegean processional scenes in Thebes. See the spreadsheet: 'Aegean processional scenes' for a few examples of bimetallic jars presented to Thutmose III and other rulers.
700 See Ayers 2008: passim.
701 See chapter Five and chapter Four: 'Aegean and Aegeanising items unearthed in Egypt'.
702 Chapter Six, Appendix Five.
703 See Warren 1969: 55-56 for a few examples.
with regard to the 'flying gallop',\textsuperscript{704} e.g. in the hunting scenes of the tomb of Intef.\textsuperscript{705}

Textiles from the Aegean may have inspired decorative patterns painted on the ceilings and walls of tombs and palaces in the eighteenth dynasty. For example, the ceilings in the tomb of Senenmut are painted with patterns with parallels to Minoan decorative painting.\textsuperscript{706} Moreover, the wall décor of the palace of Amenhotep III at Malqata includes running spirals with dotted centres alternating with bucrania supporting rosettes.\textsuperscript{707}

It is now time to examine the evidence.

\textsuperscript{704} [§ flying gallop].
\textsuperscript{705} (picture 154) [M1008]. See note 1002 for the flying gallop and how this was developed in Egypt. Intef was in the services of Hatshepsut and Thutmose III. For more information about his tomb and the painted decoration see below, chapter Six.

\textsuperscript{706} (pictures 155-162, 184-187). Kantor 1947; Barber 1991; 1998. For Minoan-inspired frescoes see the murals in the tombs of Senenmut (TT 71), Kenamun [M1005], [M1007] (TT 93 and TT 162) and Muttuy (TT 162), Iputy (TT 217), Menena (TT 69) in Karetsou et al. 2000a: 283-286 [279-285] (the catalogue provides illustrations in colour and further references). Also, textile-inspired wall-paintings in the tombs of Intef (TT 155) [M1008], Amenemhet (TT 82), Hapuseneb (TT 67), Amenmose (TT 251), Mencheperreseneb (TT 86) in Barber 1991: 311-348. See also: Nilotic scenes in the previous pages of this chapter.

CHAPTER FOUR

EVIDENCE: ARTEFACTS AND TEXTS

A silver cauldron of Cretan work with four vessels of bronze, (with) the handle of silver, makes 56 deben and 3 kite.

Urk. IV. 733. See {19}

4.1 Methodology, aims and objectives

In transcultural archaeology, the study of finds and texts is of fundamental importance to researchers who wish to reconstruct the links between two or more civilisations.

Previous scholarship has been generous in the study of the evidence of A-E transcultural connections. The catalogues of orientalia by Lambrou-Phillipson and Cline, also the Herakleion Museum catalogue and the publication of Phillips, have sufficiently covered
the find analysis of Aegyptiaca.\textsuperscript{708} Texts which introduce A-E relations were also studied before.\textsuperscript{709} The publication of a complete modern catalogue of Aegean and Aegeanising items unearthed in Egypt is essential since Kemp and Merrillees (1980) is now outdated.\textsuperscript{710} The creation of another catalogue of Aegyptiaca and Egyptianising artefacts on Crete, when the most recent one (Phillips 2008) is relatively new, should, for the moment, stay on hold, until new material comes to light.\textsuperscript{711} Ideally, a fresh publication is needed to cover all Egyptian artefacts in Mainland Greece and to discuss the latest archaeological discoveries.\textsuperscript{712}

This chapter studies evidence that illustrates A-E relations from c 1900 to 1400 BC. As expected, evidence covering this chronological frame includes hundreds of finds and many textual records. Of course, this chapter, and the appendices accompanying it, are not a complete list of artefacts and texts, but, rather, a selection of key data.\textsuperscript{713} The evidence will be grouped into two major categories: a) texts concerning A-E contact; b) artefacts; especially portable objects transported from Egypt to the Aegean and vice

\textsuperscript{708} Kemp and Merrillees (1980); Lambrou-Phillipson (1990); Cline, E. H. (1994) (republished in 2009 with minor changes); Karetsou et al. (2000a); Phillips, J. (2008). Additionally, new artefacts are sometimes discussed in individual studies and academic articles.

\textsuperscript{709} Studies of texts include Strange (1980) for a few texts mentioning 'Keftiu', with the original texts in hieroglyphs. Similar texts are also discussed in Cline (1994) with transliterations. Some texts are also studied in Wachsmann (1987) and Duhoux (2003; 2008).

\textsuperscript{710} New artefacts have been unearthed from the eighties onwards. Such a publication would shed more light on matters of chronology with regard to Egyptian connections with the Aegean. Judas 2010 is currently unpublished.

\textsuperscript{711} Therefore, the author argues that one should consider creating a new catalogue of Aegyptiaca in five to ten years time, when new material is unearthed.

\textsuperscript{712} It is worth mentioning that Petrovic (2003) has discussed some of the newest artefacts and their symbolism in his Ph.D thesis.

\textsuperscript{713} See the Annex and the spreadsheet. The criterion for the selection of the presented material is its suitability to introduce the macroeconomics, nature, and protagonists of A-E interactions. See below, this chapter: 'Material culture: selection criteria'.

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versa.\textsuperscript{714}

Texts and artefacts presented here are linked to material on the CD.\textsuperscript{715} Artefacts generally follow the catalogue numbers in major publications.\textsuperscript{716} Each text has been given a number\textsuperscript{717} which links to the appendices, where translation and further references are provided. Among the evidence, two case studies are examined in chapters Five and Six, as they have significantly contributed to the topic of this research: these are the Avaris frescoes and the Aegean presence on the Theban procession scenes.

\section*{4.2 The texts}

Egyptian texts offer considerable information about A-E relations. Relevant Aegean texts, however, are limited. Only a selection of these texts will be provided.\textsuperscript{718} Related text documentation dating to the reign of Amenhotep III onwards is not discussed or is very briefly mentioned.

\begin{footnotesize}
\footnotetext{714 The objective is to examine this evidence via the WS and GT point-of-view. An overview of other aspects of A-E relations, such as architecture, scripts, exchange of raw materials and technology, etc., has already been provided in chapter Three and the Annex.}
\footnotetext{715 Spreadsheet, the Annex of chapter Four, and the photographic material.}
\footnotetext{716 Artefacts are presented as \textit{[catalogue number of find]}. For details on catalogue numbering see the manual on the spreadsheet.}
\footnotetext{717 Texts are presented as \textit{[text number]}.}
\footnotetext{718 For the texts in curly brackets \textit{[texts]} see the corresponding sheet ('texts') on the spreadsheet (CD).}
\end{footnotesize}
4.2.1 Terminology

Here the author briefly discusses a number of terms and phrases such as (in English translation) Keftiu, Keftiu ships, the Isles in the Midst of the Great Green, Menus, 'wine dark sea', etc. Keftiu and the Isles in the Midst of the Great Green are occasionally mentioned together in the Egyptian written records and are also discussed together by modern scholars.\footnote{\textit{e.g.} \cite{Duhoux2003, Duhoux2008, Duhoux2013}. See \textit{e.g.} Duhoux 2003; 2008; 2013. All the terms in hieroglyphs presented underneath the titles of the terms read from right to left. \textit{Jsesh} software (\url{http://jsesh.qenherkhopeshef.org/}) was used for the typing and editing of hieroglyphic inscriptions in the titles of this section.}

1. **Keftiu**

\begin{figure}
\centering
\includegraphics[width=0.5\textwidth]{keftiu.png}
\caption{Egyptian transliteration: \textit{Kftiw} or \textit{kfhyw} or \textit{kftiw} or \textit{kft.w} with variations (texts \{1-8\} to \{14-17\} and \{19-23\}).\footnote{For the variations of the title in hieroglyphs see Strange 1980: 208, appendix 1. See also \textit{LÄ I}, 70 (f); \textit{Wb} 5, 122.5.}}
\end{figure}

'Keftiu' and its accompanying terminology have been examined by various
researchers. The term is related to Kaptara or Kaptôr. The identity of Keftiu has puzzled scholars and the land of Keftiu has been previously linked to Crete, Asia Minor, Syria, Crete and Syria, Cilicia, Cyprus, Anatolia, etc. Wachsmann states that the List of Kom el-Hetan and the Aegean processional scenes demonstrate that Keftiu equals Crete, the Aegean Islands, and likely - but not certainly - depending on the text and its date - the Greek mainland and the coast of Asia Minor. Evidently, terms kftyw / kaptaru / kaptôr may occasionally refer to the Aegean area in general, but Crete is the location usually intended.


722 See Vercoutter 1956: 107-113; Strange 1980, particularly 9-15; with the variations of Kaptara presented in page 207, appendix 1. For the consensus of Egyptologists, Assyriologists, Bible scholars, and Aegeanists to identify Egyptian kftyw (Keftiu), Akkadian Kaptaru, and Hebrew Kaptôr with Crete see also Vercoutter 1956; Hutchinson 1962: 106-111. Additionally, see (tables 28, 41b) for further references about Kaptara.

723 For a history of the given interpretations see Vercoutter 1956: 33-35; Strange 1980: 113-146; and Duhoux 2003. 31-39; 2008: 21-28. Strange favoured the association of Keftiu with Cyprus (1980); so did Merrillees (1982) and Green (1983); others disagreed (see Strange 19800: 126-138 for its association in Asia Minor, 143-146 for Syria; Vandersleyen 1985: 45-50; 1995: 28, 309, 354, 379-380; 1999: 122-123; 2002 for an Asiatic association of the term; MacGillivray 2000 for its association with Anatolia, Morris 1999:102-103, who suggested that Keftiu referred to all the Aegean and even Levantine seafarers, etc.). Duhoux 2003: 38-39, 143-144. Note that Duhoux rejected the association of Keftiu with Asia (2003: 32-38) and states that Keftiu were the inhabitants of Crete or they were settled in the Nile Delta (2003: 38-39), 143-144. The Syro-Palestinian suggestion gained ground as some Keftiu appear 'Syrianised' in the eighteenth dynasty Aegean processional scenes (see chapter Six: 'artistic technique: the scenes through the eyes of the artist'). Vercoutter (1954; 1956) preferred to link the term with Crete.

724 Wachsmann 1987: 96-97. For the list of Kom el-Hetan see this chapter: 'Egyptian texts' (very end of the discussion). For the Aegean processional scenes see chapter Six.

725 Vercoutter 1956; Panagiotopoulos 2001; 2006. Vercoutter examines the term together with the Islands of the Great Green in [14], [15] and concludes that Keftiu and the Isles in the Midst of the Great Green are the Aegean sea in general.
Moreover, MacGillivray, Duhoux and others have suggested that the term can accommodate more than one location, depending on its date and use. Therefore, there seems to be no doubt that any of the following could be called Keftiu: Minoans indigenous to Crete or Aegeans in the Cretan political sphere;\textsuperscript{726} Mycenaean 'invaders' who settled on Crete (i.e. Mycenaean Keftiu);\textsuperscript{727} Minoans who lived on / came from Crete or (in) the Nile delta;\textsuperscript{728} or Minoans who colonised areas in Syria-Palestine or were intermediaries in the Aegean-Syrian-Egyptian circulation of prestige commodities.\textsuperscript{729}

In agreement with the previously-mentioned opinions, to the author's mind, the term is primarily linked to the land of Crete and the ethnic identity of the Cretans. However, the Keftiu spread geographically and ethnically beyond Crete, i.e. hypothetically, the term may be linked to various regions. Moreover, the stem \textit{kft} may be linguistically associated with a number of meanings. Sometimes, a determinative assists the word recognition and comprehension.\textsuperscript{730} The outlook of the author is demonstrated in a number of hypotheses in (table 62) and involves the discussion of Keftiu inside and outside the Aegean, suggesting that the term is not strictly associated with a particular ethnic identity. Moreover, to the author's mind, the meaning that the term receives

\textsuperscript{726} Minoans indigenous to Crete (suggested by Vercoutter 1954; 1956).
\textsuperscript{727} Mycenaean invaders who settled on Crete (MacGillivray 2009: Mycenaean Keftiu).
\textsuperscript{728} Minoans who set off from / live on Crete or in the Nile Delta (Duhoux 2003).
\textsuperscript{729} Minoans / Aegeans who have colonised areas in Syria-Palestine or were intermediaries in the Aegean-Syrian-Egyptian circulation of prestige goods (Pinch Brock 2000).
\textsuperscript{730} A determinative in the end of a word specifies quality, quantity, ilk, etc.; e.g. \textit{\textcircled{214}} with the determinative of a mountainous / foreign land (N25 in Gardiner's grammar) signifies Crete. \textit{\textcircled{118}} with the determinative of a boat on water (P1 in Gardiner) demonstrates that the word describes a ship, etc.
depends on the linguistic context of the phrase / text / inscription, on the date of these written sources and on historical factors.

2. **Keftiu ships**

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Egyptian transliteration: \( kft.\,ww \) with variations; with the boat on water determinative (P1 in Gardiner) (texts \{1\} and \{2\})

The term remains problematic nowadays.\(^{731}\) The discussion of Keftiu vessels is primarily linked to the identification of the land of Keftiu and secondarily, to the seafaring itinerary between Crete and Egypt (direct or indirect); who was conducting such a trip and for what reason.\(^{732}\) The identity of Keftiu ships is also determined by considerations about their place of manufacture, their port of departure or their destination; the ports in which these vessels anchored, their services in war or trade and ultimately, the nationality of their crew.\(^{733}\)

The term appears in the records in the reign of Thutmose III \{1\}, \{2\}, a fact that signifies that these vessels are linked to the reign of this Pharaoh. However, researchers cannot agree on the Keftuan ships' identity. In the past, it has been suggested that these are Minoan / Aegean ships;\(^{734}\) or even Egyptian ships travelling between Egypt and the Aegean.\(^{735}\) Others seem to prefer their Syrian origin in combination with their seafaring

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\(^{731}\) See Wb 5, 122.6, Jones 1988 (Naut. Titles) 149 (80).
\(^{732}\) See chapter Three: Aegean ↔ Egypt: Trade and contact routes.
\(^{733}\) See the discussion in Vercoutter 1956: 54-55; Wachsmann 1987: 119-121.
\(^{734}\) Glanville 1932: 22, n. 56; Rehak 1998.
\(^{735}\) Säve-Söderbergh 1946: 50; Vermeule 1972: 114
towards the Aegean, on the basis of interpreting the text of the Annals {2} to demonstrate that the vessels themselves were a tribute to Egypt from Southern Syria.736 Duhoux also adds that the vessels may have been manufactured and run by the Minoans, for long-distance seafaring to Egypt and the Easter Mediterranean, or, more likely, they were manufactured in Egypt and they were called Keftiu due to their type, seafaring itineraries or destination.737 Opinions vary, but from the viewpoint of the author, the kftı.ww were seagoing ships that anchored in various EM stations, including Crete and Prw-nfr in Egypt, which has been recently assumed to be the harbour of Avaris.738 Moreover, on the grounds of texts {1} and {2}, the author in convinced that these vessels were (not necessarily built, but) at least repaired at Prw-nfr. Moreover, it is possible that Aegeans were among the ship crew.739

3. The Isles in the Midst of the Great Green (The Isles in the Midst of the Sea)

(Egyptian transliteration: īww hryw-ıb nw w3d-wr with variations)

(texts {9-13}, {15}, {18})

736 Nougayrol (1955); Basch 1978: 99-109; Wachsmann 1987: 121; Wachsmann and Bass 1998: 51-52. Those who support the opinion that Keftiu ships were indigenous to Syria state that there is no proof that Egyptian vessels ever travelled further than the Syrian ports in the eighteenth dynasty, and thus, there is no way Keftiu-named ships of Egyptian origin reached the Aegean. Still, the number of LM II / LM IIIA1 Aegyptiaca from Crete and the Kom el-Hetan List (see Cline 1987; 1995a,b) may contradict such a concept.
737 Duhoux 2003: 224. See also text {1}.
738 For Prw-nfr see chapter Five: 'The Aegean interactions with Avaris addressed historically' and Seven: 'Possible A-E alliances and diplomatic treaties'.
739 For the reasons why, see the following pages in this chapter: 'An analysis of the texts': {1}, {2}. Also, chapter Seven: 'The protagonists of A-E interactions: c 1900-1400 BC': 'sailors'.
Equally problematic with the term 'kftyw' and its variations is that of ıww ḫryw-ib nw w3ḏ-wr (Isles in the Midst of the Great Green) and its variations.\(^{740}\) The term is compared to w3ḏ-wr (= Great Green), occasionally used to express the word 'sea' in texts.\(^{741}\) Wachsmann states that ıww ḫryw-ib nw w3ḏ-wr 'defined part of the Kefiu or an adjacent geographic entity' and that the term is 'the Minoan name for Crete and the surrounding islands'.\(^{742}\) Such a concept agrees with Vercoutter, who believed that Kftıw and ıww ḫryw-ib nw w3ḏ-wr are synonymous and that the 'Isles in the Midst of the Great Green' referred to the Cyclades and perhaps Crete itself.\(^{743}\) The general view is that Kefiu is the Egyptian name for Crete, and that the Isles in the Midst of the Great Green designate the Aegean Islands, most likely including the Peloponnese.\(^{744}\) However, Duhoux discusses this term (in the Egyptian texts) in association with the Nile Delta, the Red Sea and the Mediterranean, but he demonstrates a preference to the Delta with respect to the eighteenth dynasty Egypt.\(^{745}\) To his mind, only Ptolemaic records associate the Great Green with the Mediterranean.\(^{746}\) Vandersleyen and Nibbi have also linked the 'Great Green' (w3ḏ-wr) to the Nile and specifically the Nile Delta itself.\(^{747}\) On the grounds that 'ıww ḫryw-ib nw w3ḏ-wr' equals the Delta, Duhoux argues that

\(^{740}\) For the variations of the term see the table in Vercoutter 1956: 157-158. See also LÄ III, 1278, Wb 3, 11.10.
\(^{742}\) Wachsmann 1987: 98-99
\(^{743}\) Vercoutter 1956: 64, 125-127, 149-157 and for the term in general, see ibid: 125-157. Vercoutter had linked the term with the Mycenaean culture.
\(^{745}\) Duhoux 2003: 43-144, especially 119-133, 135-144. See also Duhoux 2008: 25-28.
\(^{746}\) See e.g. Wilson 1997: 615 (Ptol. Lexikon). The reasons that make Duhoux object to the relation of the Great Green with the Mediterranean are illustrated in Duhoux 2003: 129-134; 2008: 25-27. ḫw is translated as island or high-lying land (Wb 1, 47.4-11).
Minoans were settled in Egypt, and that some of the Keftiuans portrayed in the Aegean processional scenes in Thebes (particularly in the scene in the tomb of Useramun; and the accompanying text {18}) come from the Delta. The present writer argues that the Egyptian term primarily refers to the Aegeans in the Aegean (particularly the inhabitants of Crete and the Archipelago) but she does not reject the view that the term may also refer to Aegeans which were present in the Delta, since, it is demonstrated from the Minoan -/ Aegean (-ising) frescoes in various EM regions that the Aegeans were beyond the Aegean Sea and the Keftiu were beyond Crete.

4. The term Menus

(Egyptian transliteration: mnws or Mnws)

(texts {17}, {21})

The term mnws (name of person / country, depending on determinative) has been connected to the legendary king 'Minos' and the Minoans, or Mallos in Cilicia. The term is mentioned in an eighteenth dynasty 'geographical list' together with the Keftiu; also, in the story of Sinuhe and in other texts. The interpretation of this rarely

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749 For the Minoan / Aegeanising frescoes outside the Aegean see chapter Five. For the Aegean presence in Egypt see below: 'On the razor's edge: Aegeans in Egypt and Egyptians in the Aegean'.

750 See Albright 1994: 9-10; GDG III. A discussion of the term, along with examples of texts, is provided in Vercoutter 1956: 157-168. For the variations of this term in writing see Vercoutter 1956: table in page 182. The determinative of a man (usually A1 in Gardiner) in the end of the word demonstrates an individual, whereas the determinative of a the foreign land (N25 in Gardiner's grammar) demonstrates a land.

751 Strophe 220: 'May then your Majesty command to have brought to you the Prince of Meki from Qedem, the mountain chiefs from Keshu, and the prince of Menus from the lands of the Fenkhu' (translated after Lichtheim 1973: 230). For the text in the original see Vercoutter 1956: 160. For the
mentioned word is extremely fluid, to the point that it has been suggested that *mnws* was an 'invented' literary term, and not a real country.\(^{752}\)

5. **The term Hau-Nebut**

(Egyptian transliteration: $h3.w$-$nb$.wt or $H3.w$-$nb$.wt)

The term $h3.w$-$nb$.wt may be translated in various ways depending on the date of the inscriptions. It is linked to the 'shores of distant lands' and the land (islands) struck by sea waves (literally = behind the islands).\(^{753}\) Ahhotep has been called 'the Mistress of the Aegean Islands' after the designation of *nb.wt* as circle or breadbaskets;\(^{754}\) a title which is problematic since the term, depending on the era, may be associated with the northern regions of Egypt (without specification), other foreign islands, 'foreign lands' in general, regions in Lebanon, the coasts of the EM and most likely, with the aboriginal inhabitants in the zone north-west of the Delta, etc.\(^{755}\)

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geographic list in question see Vercoutr 1956: 162-163, texts 57, 58. For other texts mentioning *mnws* see Vercoutr 1956: 160-182. Another textual example is provided in note 1397.

Vercoutr 1956: 182 has argued that 'Menous peut n’ avoir jamais désigné un pays réel; il pourrait fort bien n’ être qu’ une déformation du “Menous des Pays Fenkhou” du texte du Sinuhé’.

In plural, *nb.wt*, are the islands of the Aegean (Wb 2, 227.2-4; LÁ III, 1278). See also Wb 3, 11.1-12 for $h3.w$-$nb$.wt.

This title is only used once, on stela CG34001 (Lacau 1909: 3, 41). Gauthier 1927: 12; Bietak 1996: 80; Janosi 1992. The association of the term with the Cyclades was suggested by Meyer: 1928: 54 contra Duhoux 2003). The correlation of *nb.wt* with a breadbasket is difficult to explain: 'Why the Egyptians compared the Aegean islands to baskets is not as clear as it might be' (Gardiner 1947: 1: 207). For the problematic identity of Ahhotep see chapter Four: 'Aegean and Aegeanising items unearthed in Egypt': 'Avaris'. Also note 1847.


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6. **The term Tinay**

(Egyptian transliteration: tin3yw)  
(text {23})

The term *tin3yw* (*Tanaja* in the Aegean texts) is associated with the Homeric Danaans (*Δαναοί*) and it is identified with Mainland Greece.\(^{756}\) The term is mentioned in the topographic list of Kom el-Hetan\(^{757}\), with other Aegean regions.\(^{757}\) Duhoux appears sceptical over the association of the term with the Greek mainland, suggesting that it may designate inhabitants of the Peloponnese, Rhodes, areas of Cilicia, Asia Minor, etc.\(^{758}\) The Danuna at EA 151 could be associated with the Aegean.\(^{759}\)

7. **Όνυψ πόντος**

A term translated in English as 'wine-dark sea'. *Όνυψ* (var. *ονύψ = wine-dark / deep red / ink-coloured) is a Homeric epithet of the sea and occasionally the Aegean Sea, mentioned in Iliad and the Odyssey.\(^{760}\)

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757 For the list of Kom el-Hetan see below: 'An Analysis of the Texts'.
759 EA 151 mentions that the 'king of Danuna' is dead (Moran 1992: 238-239), a term that could be associated with the Aegean (Cline and Stannish 2011: 7).
760 E.g. Iliad book XXIII: 316: μήτι δ’ αὖ τε κυβερνήτης ἐν ο νοπι πόντῳ; Odyssey book V: 132: Ζεὺς ἐλάσας ἐκώασε μέσῳ ἐν ο νοπι πόντῳ. See ονύψ in Liddell-Scott-Jones Greek-English Lexicon (Liddell et al. 1940) for more examples. *Όνυψ* is also occasionally used for cattle. The wine-dark colour may be associated with the colour of the Aegean during sunset; otherwise it expresses mood (sea is unfriendly and dangerous and leads to foreign lands), such in the case of the modern Greek expression 'παραδέρνει στις μαύρες θάλασσες', manifesting the danger of seafaring 'in the dark seas'.

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4.2.2 An analysis of the texts

4.2.2a Egyptian texts

A number of Egyptian texts which are chronologically related to the time period covered in this thesis, and refer to the Keftiu and the Islands in the Midst of the Great Green, are discussed here. Further inscriptions citing the Keftiu and the Islanders will be provided separately, in chapter Six, as these accompany the Aegean processional scenes in Thebes.\textsuperscript{761}

Papyrus BM 10056 \{1\}, which dates to the early reign of Hatshepsut or the reign of Amenhotep II, discusses the accounts of the naval yard of Prw-nfr and the services of certain carpenters in association with the Keftiu ships.\textsuperscript{762} Carpenters received the ˤš-\textit{wood} in order to use it for the manufacture or repair of the Keftiu ships. In other words the text demonstrates that the ships named 'Keftiu' did not only anchor at Prw-nfr, but they were also constructed or repaired in the local royal dockyard.\textsuperscript{763} The question is 'manufactured or repaired by whom?' Naturally these vessels would be repaired (and possibly manufactured) by Egyptians, since the port was Egyptian at the time. However, Wachsmann, who favoured the Syrian identity of the vessels, even suggests that they were repaired by Syrian shipwrights working at Prw-nfr.\textsuperscript{764} In agreement with Basch, he

\begin{itemize}
\item \textsuperscript{761} See chapter Six: 'Texts accompanying the scenes'.
\item \textsuperscript{762} For Papyrus B.M. 10056 see Der Manuelian 2006: 174 and Pasquali 2007.
\item \textsuperscript{763} Lorton 1977: 316f; Strange 980: 98
\item \textsuperscript{764} Wachsmann 1987: 120; Wachsmann and Bass 1998: 51-52 after the consideration of Säve-Söderberg 1946: 53; Granville 1931: 116, 121 (discussing Syrians at Prw-nfr). For Prw-nfr \textsuperscript{765} 177
argued that the vessels were Syrian seagoing ships, voyaging to the Aegean and Egypt, since the link with Syria (or Syrians) is found in the documents of the Keftiu-ships {1}, {2} and on the basis that *we know of Syrian merchant ships voyaging to the Aegean at this time*.

The Annals of Thutmose III (34th year of Thutmose III's reign) also refer to Keftiu ships {2}. The relevant inscription in the Annals describes how the so-called Keftiu ships transported Palestinian timber to Egypt after the victorious campaign of Thutmose III in Syria-Palestine. Again, Wachsmann, who argues that Keftiu ships were indigenous to Syria, interprets the text as if the ships were a tribute of the defeated Syrians to the Pharaoh.

The author maintains that undoubtedly, the interpretation of both texts {1}, {2} is extremely volatile. However, the Keftiu reference to the name of the ships surely links these vessels to the Keftiuans, directly or indirectly, strongly or loosely. In short, the term 'Keftiu ships' (whether Minoan, Egyptian or Syrian) signifies that any ships anchored on Crete, along with their crew, assisted in the circulation of goods in the EM. Moreover, recent research of the Austrian mission to identify *Prw-nfr* to the vicinity of Tell el-Dab'a, in combination with the Aegean frescoes discovered at Avaris, may eventually link the 'Keftiu ships' with the presence of Minoans there.

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767 See Bietak 2009. Also, chapter Five and particularly 'The Aegean interactions with Avaris addressed historically'.
A school slate of the early eighteenth dynasty, with the title 'to make names of Keftiu' mentions a few Keftiuan names, among those of other origin.\textsuperscript{768} The text demonstrates 'the Keftiu awareness', i.e. the fact that the Egyptian scribes knew about the Keftiu or had to know about them in order to facilitate Egyptian dealings with the Keftiu.\textsuperscript{769} The presence, or, at least, regular visits by Keftiu people to Egypt, must have been a reality in the early and mid eighteenth dynasty; to such a degree, that the name was introduced to the educational curriculum of that era.\textsuperscript{770}

The 'Hymn of Victory', which dates to the eighteenth dynasty, celebrates the might of Thutmose III and the Egyptian ethnic identity in a manifestation of the super-power of the victorious Egyptian ruler in the then-known world. The poetic stela mixes historical reality and fiction and it mentions various locations which do or do not belong to the Egyptian realm.\textsuperscript{771} The text provides (fourth strophe) the geographical position of the land of Keftiu: it is placed to the west of the Egyptian North, i.e. everything west of the areas conquered by Thutmose III in Asia.\textsuperscript{772} The same text also refers to the Isles in

\textsuperscript{768} O'Conner (1990) and Cline (1994) can see Minoan names in the texts, contra Strange 1980: 115, who sees no Greek names and argues that the text rules out the identification of Keftiu with Crete.
\textsuperscript{769} Strange 1980: 85; Karetsou et al. 2000a: 16
\textsuperscript{770} The Keftiu presence, and the regular Keftiuan visits to Egypt, are emphasised in Cline (1997) and Panagiotopoulos (2006), among others. See the conclusions for a discussion of the Minoan presence in Egypt. The writing board also demonstrates the multicultural environment in eighteenth dynasty Egypt; along with the international business of the Egyptians, also highlighted in the Amarna correspondence.
\textsuperscript{771} The poetic stela, which dates to the reign of Thutmose III, should be seen as a counterpart of the Aegean procession scenes in the Theban tombs of the nobles, the hieroglyphic inscriptions accompanying them and the topographical lists, such as the list of Kom el-Hetan (see the following couple of pages). For the Aegean procession scenes in Thebes; and for the texts related to the scenes, see chapter Six. For the Poetic stela 'Hymn of Victory' see Lichtheim 1976: 34-39 which also provides a translation.
\textsuperscript{772} Christophe 1951: 107-110.
the Midst of the sea {11} (sixth strophe), after a reference to the 'marsh dwellers' and the Mitanni in strophe five. The inscription shows that the land of Keftiu was seen by the Egyptians as a distinct and separate entity from the 'Islands in the Midst of the Great Green'.

Ebers hieratic medical papyrus records the 'Keftiu beans' {4} and their medicinal benefits. The date of the papyrus is problematic; it dates to c 1500 but it is probably copied from earlier written records. The text suggests that Keftiu beans were either imported or were grown in Egypt after previously being imported from Keftiu. Additionally, the London Medical papyrus (late eighteenth dynasty) offers, among a number of texts, two spells {5} for the treatment of German measles and the Asiatic disease 'in the language of the Keftiu'. Both {4} and {5} prove that the Egyptians were, to some extent, familiar with the cult, magic and medicine of Crete. The texts also show exchange of medicinal knowledge (remedies) and pharmaceuticals between Crete and Egypt. Moreover, spell {5} (part B in particular), demonstrates that the Egyptian scribe was, though restrictedly, aware of a few of the Keftiu language elements. To the author's mind, the last concept is only valid assuming that the text made sense on

773 Strange 1980: 20
774 See Ebers 1875: pl. IX, 16-19; Reinhold 2002; Pommerening 2005; Nunn 2002: 30-34 with further references. The papyrus dates to about the time of the King Apophis (the Hyksos Period) but may contain parts which are considerably older (Vercouutter 1956; Strange 1980; Cline 1994). Pommerening (2005) dates the remedy to around the time of Amenhotep I (c. 1530 B.C.).
775 Strange 1980: 993-94 [38].
777 See [§ networking].
778 Vercouutter 1956; Strange 1980; Redford 2006
Crete when it was spoken, and that it is not a meaningless hocus pocus.

The Ipuwer Papyrus (early nineteenth dynasty) mentions that 'the Keftiu (?) do not arrive any more' in a passage discussing broken trade relations with Byblos and northern trade partners {6}.\footnote{The passage is from the 'Admonitions' or Papyrus of Leiden 3, 6-9. See Lichtheim 1973: 149-63 for a complete translation of the text; also Enmarch 2005; 2007; 2008, for a more recent translation and analysis. The text is problematic and a number of translations have been provided, which differentiate the grammatical role of the 'Keftiu' in the phrase, to the point that the meaning is ambiguous and the interpretation varies.} This source shows that Egypt maintained trade relations with the Keftiu in the Middle Kingdom, and that 'Keftiu' was a place to which the Egyptians sailed via Byblos (i.e. indirectly).\footnote{Note that Strange sees these relations initiated from the mature Old Kingdom onwards. See Strange 1980: 73 cf. Fecht 1972: 18, note 15.} Indeed, both Minoans and Egyptians traded and networked with Byblos.\footnote{See Ward 1963: 24, who argued for an Egyptian emporium at Byblos [§ gateway]; and Watrous 2001: 211 for the long-distance trade of Crete in MM IA, including Byblos.} Byblos supplied Egypt with cedar or pine and their products.\footnote{See the discussion of {I}.} When trade and contact with Byblos broke, this ended Egyptian connections with Keftiu. In other words, the relationship between Keftiu and Egypt at the time discussed in the papyrus, was indirect, via other countries, such as Syria-Palestine.\footnote{For the direct and / or indirect A-E relationships over the course of time see the Conclusions: 'Research question Seven: Between c 1900-1400 BC, were A-E relations direct, or indirect?'}

Last, {6} may also suggest that the resin from the Cretan oaks was used in Egypt for mummification.

A funerary stela of the twelfth dynasty {7} mentions 'Kefti(? ) Horus'. A 'Keftiuan Horus' would introduce a discussion on Minoan-Egyptian cultural relationships. However, the reference is dubious, since the word kfti, qualifying Horus (which could mean Keftiuan,
i.e. it would signify Keftian Horus) lacks the -w ending and the determinative of the foreign country (N25 in Gardiner's hieroglyphic sign list); thus it cannot be treated as an adjective.784

Two inscriptions {8}, incised and painted on an arragonite vessel found in the eighteenth dynasty tomb of Thutmose IV, are also problematic in interpretation.785 Apparently the vase contained a gift from the land of Keftiu, or an imported substance called 'Keftiu' by the Egyptians.786 Still, they provide evidence to support the macroeconomic approach of gift-offering and gift-exchange (or even mere trade) between the Keftiuan and Egyptian elite; a reciprocal process initiated a lot earlier, judging from the Aegean processional scenes in Thebes.787 Moreover, the text may demonstrate that the Egyptians imported some kind of Keftiuan substance for funerary / ritual purposes.788

The accounts in the Annals mention {19} that the prince of Tinay sent a silver shawabti-vessel, of Keftiuan workmanship, together with four elaborate metal bowls, to Thutmose III. The text is important for various reasons. Firstly, the items were sent to Egypt as Danaan ınw.789 Secondly, the text introduces a direct contact of the Danaans with Thutmose III and an indirect one with the Keftiu: Tinay sent to Egypt an item of

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784 Strange 1980: 102 [46]; Cline 1994: 109 [A.7].
785 See {8} in the appendices for the possible translations.
786 With regard to the date of the vessel and inscription, according to Carter and Newbury (1904: 2), the two inscriptions on the vessel refer to different rulers: Hatshepsut and Thutmose IV – the vase was intended for the former, but was (re-)used by the latter.
787 For the Aegean processional scenes see chapter Six.
788 Strange 1980: 99. It is uncertain what 'Keftiu' is associated with in this inscription.
789 ınw = tribute or gift. For ınw see chapter Six: 'the ınw'. For the Danaans see 803 and chapter Four: 'Terminology'.

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Keftiu workmanship, i.e. they offered Thutmose III a gift of origin from a country other than their own. 790 In other words, the Danaans had already started collaborating with Thutmose III late in his reign, possibly even overshadowing the Egyptian relationship with the Keftiuans. 791 Other than its enigmatic name, the silver 'shawabti-vessel' (a pitcher) was specifically manufactured for a tribute / gift purpose, so that it was used in Egypt: the Egyptians were aware of similar models of craftsmanship. 792 Text {19} also demonstrates that the Keftiu were exporting metalwork (as seen in the Aegean processional scenes in Thebes), raising questions of whether there was an organised Cretan metal industry or not. 793 The Keftiu citation is however considered problematic by Strange and Cline. 794

The following texts refer to the Great Green and its isles. These are often cited in prose. The story of Sinuhe {9} mentions the Isles of the Great Green at the end of an enumeration of protective deities from various locations. Moreover, the 'Great Green' is

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790 To the author's view, such a process challenges the aspects of transference and hybridism in the Aegean processional scenes of that era (for transference and Hybridism see chapter Six: 'the Aegean processional scenes through the eyes of the artist'). The act of a nation offering Egypt an item of foreign manufacture demonstrates market, trade and networking, i.e. some items were imported to a nation with the purpose of re-circulation and re-distribution. Otherwise, such a practice demonstrates that Minoan craftsmen were employed by the Mycenaeans in order to produce these items. The production of these artefacts took place on Crete (under Mycenaean rule?) or elsewhere.

791 MacGillivray regards texts {3}, {11}, {19} as proof that the Mycenaeans had superseded the Minoans in Aegean supremacy by 1563 BC; and that, Thutmose III had terminated connections with the Keftiu at the end of his reign, after having established new trade alliances with the Mycenaeans (2009: 168).

792 Pitcher = a type of jug, a drawer of water. Similar pitchers are mentioned in the Amarna Letters, but they were probably used earlier. See the discussion in Strange 1980: 97, cf. Albright 1934: 57.

793 It is likely that the Keftiu had developed a local metal industry a lot earlier that this date. See the metalwork of 'Tôd treasure', in chapter Three: 'the Aegean to Egypt'. The Cretans used some local metal resources, but most likely they imported others from outside Crete, to produce items and re-distribute them as finished products (e.g. for imported tin, see the discussion in Wiener 1991: 325, 328-330). For the Aegean processional scenes in Thebes see chapter Six.

794 a) because the tribute was received when Thutmose III was campaigning against Tunip and Kadesh, and b) because Tinay's tribute is recorded together with Kush and Wawat, two African countries (see Strange 1980: 97; Cline 1994: 110).
cited several times in the Tale of the Shipwrecked Sailor and once in the educational letter to Merikare. All these texts date to the Middle Kingdom.795

The islands are also named in an inscription of the early eighteenth dynasty {10}, which assimilates Thutmose I with the god Horus and celebrates the might of the Pharaoh over the world. The 'Hymn of Victory' (which, as seen earlier in {3}, mentions the Keftiu) also acknowledges those who are in the Isles and those who inhabit the Midst of the Great Green {11} in an Egyptian tone of disdain.796 Moreover, the islands are named in an inscription {12} on the golden bowl Louvre N 713 (picture 86), which was offered as an award, by Thutmose III, to his general Djehuty, who served in Syria. However, the authenticity of this artefact is challenged.797 Lastly, the Isles in the Midst of the Great Green are mentioned on the stela of Gebel Barkal {13}, which dates to the reign of Thutmose III and celebrates victory against the Mitanni. There, the Islands are placed together with the traditional enemies of early eighteenth dynasty Egypt.798

One of the most important sources with regard to Egyptian connections with the Aegean is a topographical list on the statue base EN in the forecourt of Amenhotep III' funerary

795 For the complete texts see Simpson 2003: 45-66, 116-124 or Lichtheim 1973: 211-214, 222-236 and for Sinuhe in particular, see Engelbach and Gunn 1923 (inscriptions curated by Gunn). The 'dubious' references from the Shipwrecked Sailor are not offered in the appendices, but the author provides a couple of examples from the text, with their transliteration instead: a) § 103: iw.n m w3ḏ-wr = '(while) we were in the Great-Green (while we were at sea)', b) § 85: n-m in tr iw n(y) w3ḏ-wr nty gs.fy m nwy = '..who brought you to this island of the Great-Green whose two sides are in the water?' (the translation of the text is after Lichtheim 1973: 213). On the educational letter to Merikare see note 613.
796 See also text {3} and its comments.
797 For the bowl see Lilyquist 1988. The bowl's authenticity, and thus, the inscription, is challenged by Lilyquist (1988).
798 See comments for {3}, {11}, {13} with regard to the Mycenaean takeover of Aegean routes and MacGillivray's (2009) chronological considerations.
temple at Kom el-Hetan {23}. The list was re-studied in 2005 by Edel and Görg, and recently by Cline and Stannish.\footnote{Edel and Görg 2005: passim; Cline and Stannish 2011: passim. The Kom el-Hetan list should be studied together with another list of foreign regions, also mentioning the Keftiu, discovered in Amenhotep III’s Temple of Amun at Soleb in Nubia (Cline 1994: 112 [A.23]). Moreover, it should be compared to the slightly later (nineteenth dynasty) geographical list at Abydos, likewise referring to Keftiu (Cline 1994: 113 [A25]). Other geographical lists mentioning the name of Keftiu date to the reign of Ramesses II (see, for example, Cline 1994: 113-114 [A26, A27, A28].}{23} Its date is not without problems but it is generally placed between the reign of Thutmose III and Amenhotep III, with a preference to the latter.\footnote{The original date of this list is debatable. Vercoutter (1956: 79), Strange (1980: 21-23) and Wachsmann (1987: 97) have suggested that this list originally dates earlier than the reign of Amenhotep III, possibly Thutmose III. However, Haider (1988: 11) argues that the reference to Tinay, i.e. the Greek Danaans of Mycenae, which (according to Cline 1991: 18, fig. 3) occurs three times in the reign of Amenhotep III (e.g. in the Kom el-Hetan list), links the inscription to the reign of that particular Pharaoh, rather than his predecessors. Kitchen (1969) also considers it contemporary with the Pharaoh Amenhotep III, and such a date would make sense, if the topographical list is seen together with the archaeological evidence: the list dates to an era when there was a considerable increase in trade activity and relations between the Aegean and Egypt, as confirmed by the high number of portable artefacts transported between the two regions, or the ‘Aegeanising’ (according to Kemp 2000) or, to the present author, artistically Aegean-influenced wall-paintings of Malqata (for Malqata and the possible Aegean-influenced decorative patterns of some of the frescoes see e.g. Yoshimura 1995; Nishimoto 1991; 1992; Karetso et al. 2000a: 287-300; Nicolakaki-Kentrou 2000 and the discussion of how the author defines ‘Aegeanising’ in the introduction). Moreover, Wachsmann (1987: 97) suggests that as half of the names in the list are topographical names of Crete, this is where the origins of the list came from. It is worth mentioning here that Duhoux (2003: 236, 241-242) gives a suggested date for this list between c 1363 and c 1344, which, to his mind, corresponds to the second half of the reign of Amenhotep III. Moreover, in the Kom el-Hetan list, he sees a possible royal itinerary to the Aegean; or simply, an expression of the universal power of this ruler: ‘…le règne universel du pharaon’ (Duhoux 2003: 242) - a notion similar to that of the sympathetic magic (below). Merrillees and Winder (1972: 290) however, are not convinced that this list dates to Amenhotep III. For an overview of the most important artefacts which date to the reign of Amenhotep III, see catalogue of Karetso et al. 2000a: 246-264. Note that portable artefacts with the name of this Pharaoh have been discovered at Mycenae, also at Kydonia and Sellopoulo near Knossos, Ialysos in Rhodes and Paleopaphos-Skales in south-western Cyprus (See Wachsmann 1987: 95-96; Hall 1901-1902 188-189; Faure 1968: 148; Pendlebury 1930: 88, Duhoux, 2003: 241, 242 and \[P262\], [P18], [P125]).}{23} According to Cline, the list demonstrates the seafaring itinerary of an Egyptian embassy sent to the Aegean sometime in Amenhotep III’s reign; possibly a trip of diplomatic character.\footnote{For the diplomatic trip and seafaring itinerary see Cline 1987; 1990; 1994; 1998; 2011, with previous references and bibliography, and Karetso et al. 2000a: 246-249. For the Kom el-Hetan list see also Cline 1994: 112-113 [A.24] or Strange 1980: 21-27 [3], or, for the most up-to-date studies, see Edel and Gorg 2005: 161-213, with commentary, further bibliography, text and photographs. Older references include Pendlebury1930: 76; Astour 1966; Kitchen 1965: 5-6; Edel 1966: 33-60; Strange 1980: 21-27 [3]; Cline 1987; Wachsmann 1987: 95-98; Knapp 1993: 2; Treuil et al 1996: 339;}{23}
The list mentions (on the front right side of statue base EN) the Keftiu (Egyptian: kftiw) and the Danaans (Egyptian: tin3yw). The Kom el-Hetan list could express sympathetic magic and/or demonstrate a special form of contact between Egypt and the Aegean but it certainly confirms (on the front and left side of statue base EN) the link between Keftiu and Crete, as it associates the Keftiu with onomastica of Minoan towns, such as Knossos (Egyptian: k3inywš / Linear B: ko-no-so), Phaistos (E: b3yš3[/?]y / LB: pa-i-to), Kydonia (E: k3twn3y / LB: ku-do-ni-ya); also Amnisos (E: imniš3 / LB: a-mi-ni-so) and Lyktos (E: ryk3ti / LB: ru-ki-to). Moreover it acknowledges the island of Kythera (E: k3tir / LB: ku-te-ra). If an Aegean itinerary is implied, this begins with Crete, Anthony Leahy (personal communication on 10 December 2014) discussed the possibility that the topographical list of Kom el-Hetan manifests Egyptian 'sympathetic magic' practised towards the listed toponyms and their peoples [§ sympathetic magic]. The author finds that this is a very interesting approach, considering that the topographical list is placed 'underfoot' Amenhotep III, i.e. on the base of his statue. A similar expression of sympathetic magic can be seen on the great pylon of Medinet Habu, on which Ramesses III sacrifices prisoners of war before the god Amun. In this case, the base line upon which the ruler and god stand is adorned with a number of anthropomorphic symbols corresponding to foreign lands, 'crushed underfoot by king and god alike' (Ritner 1993: 115). Both examples (Kom el-Hetan and Medinet Habu) express 'synecdochism', i.e. the partial use of an object / person to represent the whole (definition by Ritner 1990: 225). Thus, in the example of Kom el-Hetan, the number of Aegean toponyms would represent the whole of the Aegean. However, it is notable that the selection of the regions of this topographical list corresponds to some of the trade 'hotspots' in the Aegean and judging from the toponyms that can be read, these 'hotspots' have a cyclical geographical pattern. Cline and Stannish (2011: 12), after comparing the Kom el-Hetan list to the Middle Colonnade of Deir el-Bahri (Sethe 1906: 315-355) see an Egyptian voyage to the Bronze Age Aegean and specifically discuss the possibility of one or more irregular Egyptian royal expeditions to the Aegean sea, by Amenhotep III (?) and other rulers. All Linear B transliterations are from Ventris and Chadwick 1973; the Egyptian transliterations are based on Strange 1980 and Cline 2011. The author proceeds to a brief description of this topographical list: All names of the statue base appear in oval rings that symbolize the 'conquered' places, in the stereotypical manner of representing foreign peoples in Egyptian topographical lists. To the right of the name of Amenhotep III, on the base (front right side), two names can be seen: Keftiu and Tinay, functioning as a headline. There are currently 15 toponyms remaining, with two names missing (Cline and Stannish 2011: 7). According to Cline and Stannish (2011: 4-10) the toponyms to the left of the nomen of Amenhotep III are interpreted as Amnisos→Phaistos→Kydonia, which, according to Edel and Görg (2005: 190-191) are the scribe's corrections of Amyklai→Pissea→Amyklai in the Greek Mainland. Then the toponyms suggested are: Mycenae→Boetian Thebes (?)→Messenia→Nauplion→Kythera→Eleia(Crete) or Elos or Aulis (Greek Mainland)→Knossos→Ammysso→Lyktos.
continues with the Greek Mainland, then pauses at Kythera and ends with Crete, i.e. suggesting that the return to Egypt was via Crete.\footnote{See above, chapter Three: Aegean ↔ Egypt: Trade and contact routes.} The mention of Cretan stations proves the importance of the island in EM trade routes.

4.2.2b Aegean texts

Linear B tablet KN F 841+867 \{24\} from Knossos mentions a *mi-sa-ra-jo*, i.e. an 'Egyptian'; a personal name or adjective demonstrating the origin of an individual. The term which derives from Semitic *Miṣr* or *Miṣr*ain, is regularly seen in Akkadian, Ugaritic, Mesopotamian and Syro-Palestinian documents.\footnote{Palaima 1990: 280.} Still, the reference is considered Syro-Palestinian rather than Egyptian.\footnote{Duhoux 2008: 21-22. *mi-sa-ra-jo* is possibly used as a man's name (Cline 1994). The term comes from the Semitic word for Egypt *Miṣr* or *Miṣr*ain, regularly seen in Akkadian, Ugaritic, Mesopotamian and Syro-Palestinian documents (Palaima 1990; Cline 1994). The word does not simulate the Egyptian *kmty* (or *km.ty*). Therefore, *mi-sa-ra-jo*, i.e. the Linear B, transliteration, should be seen as a Syro-Palestinian reference, rather than as an Egyptian one (Cline 1994: 128). The term is maintained in the name of Egypt as it is today: مصري, and the adjective is extremely close to the Linear B transliteration: male Egyptian: مصري, female Egyptian / Egyptian language: المصريه.} Another Linear B tablet from Knossos, KN Db 1105 +1446 \{25\} [P274], mentions an *a3-ku-pi-ti-jo*, which may correspond to the ḫw.t-k3-ḥ of the Amarna Letters; still, to Virolleaud and Cline it is
possibly a Syro-Palestinian reference. The same name was also later used by Homer. In the author's mind, even though both *mi-sa-ra-jo* and *a3-ku-pi-ti-jo* were most likely used as personal names, they demonstrate ethnicity and origin. Both terms raise questions over the presence of Egyptians on Crete in the LM IIIA1, or even earlier; a concept which will be discussed in chapter Seven. As Palaima states: “personal names derived from foreign toponyms also attest to overseas contacts at some stage prior to the dates of the tablets on which they are recorded”.

### 4.3 An analysis of the artefacts

Concerning the material presented in this chapter, the author has handled some of the artefacts, or seen them exhibited in museums. For the finds that have not been seen or handled, the author had to rely on previous studies.

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807 ἐ-τὸ ψυχῆς τοῦ ἀτόμου (Wb 3, 5.20) = literally 'enclosure of the 'ka' (spirit) of (god) Ptah. It signifies the Memphite temple of Ptah, a term which identified both Memphis and Egypt. Manetho's name of Egypt: 'Αἴγυπτος' derived from this phrase. Note that the Greek name for Egypt has been known on Crete since the 14th century (Ventris & Chadwick 1956: 136). For the term see Virolleaud (1953: 192) and Cline 128 [E.2]. An explanation and specific details: the inscription states that an *a3-ku-pi-ti-jo* (name of the individual or adjective of origin) was in charge of a flock of 80 sheep at *su-ri-mo* on Crete. MacArthur (1993: 25-42) discussed the name *a3-ku-pi-ti-jo* (Egyptian) in Linear B and he considered it a first name, not an adjective / epithet. Virolleaud (1953: 192) and Cline 128 [E.2] state that *a3-ku-pi-ti-jo*, i.e. the transliteration in Linear B, should be considered as an Ugaritic or Syro-Palestinian reference and not an Egyptian one. The term was approximated in Greek as *Αἴγυπτος* (*Aigyptos*), from which derived the Latin *Aegyptus* and the modern English name of Egypt. Whether one should link the Linear B tablet KN Db 1105 +1446 {22} from Knossos to a Minoan presence in Memphis, as suggested by Belova (2004: 4) remains problematic. To the author's mind, if it is accepted that the Minoans were indeed settled in Memphis (according to Belova 2004), it is possible that *a3-ku-pi-ti-jo* identifies an individual who lived in Crete and was originally from the Minoan colony in Memphis.

808 *Odyssey II.15*

809 See chapter Seven: 'On the razor's edge: Aegeans in Egypt and Egyptians in the Aegean'.

810 Palaima 1991: 280

811 Some items are presented as examples in the Annex. A number of these items were handled or seen by the author. These are marked as 'handled / seen' on the spreadsheet.

812 In particular, the author had to rely on the catalogue of Phillips, which is the most up-to-date (2008).
On the CD, the searchable spreadsheet mainly presents Aegyptiaca from the Aegean, and some Aegeaca from Egypt. The author (re-)grouped the finds in the Annex, discussing them in detail, with further references. Additionally, the spreadsheet was used as an analytical tool, discussing the items in context, space and time.

4.3.1 Material culture: selection criteria

The following are the criteria for the selection of material culture (portable items and images) presented in this work:

1. typical and characteristic examples
2. date: items with secure context dating within c 1900-1450 BC. Earlier or later evidence is presented when it adds to the discussion.
3. space: Egypt, Crete, the Aegean islands (particularly the Cyclades), with items from other regions provided for comparison.

Also, material contributing to:

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The colourful pictures in the catalogue of Herakleion museum (Karetsou et al. 2000a) have also assisted significantly in this research.

813 The catalogue of finds on the spreadsheet is not explicit, but representative.
814 Some of Phillips’ (2008) groups are maintained and more groups (e.g. ‘items inscribed with names and titles of Egyptian individuals’) have been added.
815 For details see the introduction in the Annex. For instance, some diagrams were created to manifest the ‘hotspots’ of Aegyptiaca on Crete.
816 These selection criteria cover material culture presented in chapters Four, Five and Six, and the Annex and spreadsheet.
4. the WS and GT models
5. an understanding of the behaviour of A-E protagonists
6. an understanding of the rationale of the exchanges
7. the understanding of the modus operandi of the exchanges
8. the evaluation of the significance and impact of the reciprocal A-E interaction.

4.3.2 Material culture: classification

All in all, the author groups the artefacts in seven different categories with respect to origin and six sub-categories regarding qualities and features.  

1. Original (i.e. made by Egyptians) and typical Egyptian artefacts discovered on Crete and in the Islands.  
2. Minoan / Aegean (i.e. locally made on Crete or in the Aegean) but Egyptianising artefacts, discovered on Crete or the islands.  
3. Original (i.e. made by Minoans / Aegeans) and typical Minoan / Aegean artefacts discovered in Egyptian regions.  
4. Egyptian (i.e. locally made in Egypt) but Minoanising / Aegeanising artefacts

817 (tables 55, 56). See the relevant entries in the list of terms for an explanation and further analysis of the terms in square brackets.
818 These finds could be labelled as [§ Aegyptiaca].
819 These finds could be labelled as [§ Egyptianising].
820 Labelled as [§ Minoica, § Aegeaca].
discovered in Egyptian regions.  

5. Egyptian, Egyptianising, Minoan, Minoinising and Aegean, Aegeanising items manufactured neither in the Aegean nor Egypt; but rather produced somewhere else, e.g. in Syria-Palestine or Anatolia, and that have been exported from there, to Egypt or the Aegean. Such a phenomenon can be applied to all previous categories of artefacts.  

6. Other. Of other origin (e.g. Syrian, Canaanite, etc.) or none of the above.  

7. Problematic, of unknown origin, modern or forgeries.  

To the author's mind, Egyptianising or Aegeanising artefacts can be explained as follows: Stationary or itinerant craftsmen, state-linked or freelancers, occasionally used indigenous or exotic raw materials provided by their patrons in order to create products of local or foreign-like craftsmanship and cultural symbolism. Specific instructions were given to them on how the products would be made, how they would look like and what local, or foreign elements they incorporated. The author concludes that some Egyptianising and Aegeanising luxury items were also a result of the trend for 'mass luxury', i.e. they may have been produced in order to be consumed / purchased by the

821 Labelled as [§ Minoanising, § Aegeanising].  
822 i.e. [§ Aegyptiaca, § Egyptianising, § Minoica, § Aegeaca, § Minoanising, § Aegeanising].  
823 See chapter Seven: 'The protagonists of A-E relations'; 'craftsmen'.  

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aspiring social classes.\footnote{mass luxury}. For an explanation of 'mass-luxury' products see the economic principles in \textit{(table 27)}.  

Other sub-categories of these artefacts are:

1. exact or crudely made copies or replicas of foreign items of Egyptian, Minoan / Aegean origin.\footnote{Labelled as [§ imitations of foreign items, § replicas of foreign items].} These may also be the result of 'mass luxury' but not necessarily.

2. items which date a lot earlier than their archaeological context and valued for their age.\footnote{Labelled as [§ antiques / heirlooms].}

3. artefacts which have received direct or indirect foreign inspiration. These items, as opposed to Egyptianising, Minoanising / Aegeanising, do not demonstrate clearly Egyptian or Minoan / Aegean features, but their ideology, symbolism and cultural profile is strongly or loosely connected to these regions.\footnote{Labelled as [§ artefacts of foreign inspiration].}

4. items locally produced but made of foreign raw materials, where the only exotic feature on them is the raw material itself, or even its technology, but overall they appear entirely local and bear typical Egyptian / Aegean features.\footnote{Labelled as [§ locally produced, made of foreign material artefacts].}
5. Egyptianising, Minoanising / Aegeanising items made of foreign raw materials and with a foreign technique (Egyptian or Minoan / Aegean raw materials and technique respectively). These items, as opposed to the locally produced, made of foreign material artefacts, demonstrate mixed (chimeric) features, one of which could be their foreign raw material / technique of production. They may be produced inside or outside the Aegean or Egypt.

6. imported exotica modified according to local artistic aesthetics.

4.3.3 Difficulties and impediments in grouping material culture

First of all, no archaeological material can be seen independently of the exact place it was found. The archaeological / environmental context, from which a find derives, is of fundamental importance to researchers as it places this particular item into a cultural, social-political and historical sphere. Interpreting artefacts and their physical location is not easy. Firstly, an archaeological context indicates deposition of an object but not always its primary use. If a particular artefact has been disturbed from its context, or it has been disposed secondarily, researchers may receive a distorted view.

829 Note however that even locally produced, made of foreign material artefacts may be called '-ising' in research, simply because of their foreign material. Effectively, terminology and grouping the finds is entirely in the eye of the beholder. See the Introduction: 'Some clarifications on terminology'.

830 Labelled as [§ modified exotica].

831 With the term 'archaeological context' one defines not just the geographical place, but also the exact spot defined by survey (e.g. pit, ditch, etc.), soil and the type of soil (e.g. light yellow-brownish sandy soil with a gritty texture), the type of site (burial, temple, etc.), the layer the artefact came from (also defined by survey) and what else was in that layer (see Renfrew and Bahn 2000: list of terms: 'archaeological context').
Indeed, context is everything, but for some finds presented in this study, the archaeological context is not considered 'secure' or 'well-dated' enough for researchers to establish a definite view of the find, its date, function, cultural symbolism, etc.\textsuperscript{832} This is because the finds may derive from a context linked to more than one conventional date, or because it is totally unknown, or badly recorded during the excavation.\textsuperscript{833} Moreover, sometimes, even when the context is described as relatively 'secure' or 'well-dated', the date of the find does not agree with the date of the context. This happens, for example, in the case of heirlooms\textsuperscript{834} which always date earlier than their context.\textsuperscript{835} Seriation can indicate whether a find is an antique in its context or not, but heirlooms can sometimes be rather puzzling for the archaeologist, considering that A-E chronological links are still under dispute.\textsuperscript{836} The date of the find does not automatically equal the context date.\textsuperscript{837}

Additionally, when an item is discovered outside its natural environment (e.g. a typical Egyptian item unearthed on Crete), researchers need to answer questions such as why this item was discovered there and how it reached the site and context in which it was found.

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\textsuperscript{832} If the date of a find is not considered safe, then its cultural symbolism, function, etc., are not easily defined. Many examples are mentioned in the catalogue, where the context is described as 'unknown' or 'unsafe'.

\textsuperscript{833} See for example [P439], context unknown; [P163], context problematic and [P318], context not properly recorded.

\textsuperscript{834} [§ antiques] are implied here.

\textsuperscript{835} For example, if an Early Dynastic Egyptian vessel is discovered in a LM IIIA1 context on Crete, then one should expect that this vessel was an heirloom, an antique in its context. Possible antiques in their context can be seen in examples such as [P158], [P163], [P112], [P142], [P29], [P245].

\textsuperscript{836} For seriation, see chapter One: 'Chronological considerations'.

\textsuperscript{837} See e.g. how long an item (or an idea) can take to be transported from one region to another, and how this is done, in (table 49a-d).
unearthed. When items have travelled from abroad, it is sometimes difficult to estimate how these objects functioned, and if their function, symbolism and cultural status in their secondary environment (e.g. Crete), was similar to the their function, symbolism and cultural status in their primary and original environment (e.g. Egypt). This impediment also applies to objects made locally in the Aegean or Egypt that incorporate foreign artistic features; or the ones inspired by foreign models (the 'ising' artefacts). Also, exotica modified according to local taste; the imitations / replicas of foreign artefacts; and the items made of foreign raw materials, when these raw materials are associated with specific values in their natural environment. It is uncertain whether the usage, symbolism and cultural character and qualities of an item travel together with this item or not, via networking. In truth, only hypotheses can be made.

Direct and distant copies / imitations of Egyptian items (i.e. Egyptianising, of foreign inspiration, of foreign material, modified exotica, etc.) were produced in the Aegean both for local consumption (particularly to cover the needs of upper class) or for further

838 An example will clarify this concept: in the Minoan world, the typically Egyptian monkey figurine from Palaikastro [P439] may not have functioned as an erotic symbol or as an item associated with Thoth, the Egyptian god of knowledge, as it functioned in Egypt (for the monkey as an erotic symbol, and its association with Thoth, see Andrews 1994: 66-67; D'abbadie 1964:150-151). Further references about the symbolism of the monkey in Ancient Egypt are provided in the Annex.

839 [KM KA.20] for example, is made of Egyptian fabric but it imitates Kamares ware. It is not at all certain if the qualities of such a vessel in Egypt were similar to a Kamares vessel on Crete.

840 [P105], the usage of which (ceremonial flower pot? rhyton?) might be completely different to the Egyptian usage (such vessels were probably used in Egypt to hold water).

841 For example, if ostrich eggs are associated with magico-medical practices and fertility in Egypt and elsewhere (Conwell 1987:33; Behrens in LÁ VI.1.75, 76.N.3) this does not signify that eggshell rhyta on Crete, such as [K18a,b], should also be associated with fertility in their secondary environment. For some raw materials and their symbolism see Andrews 1994: 100-106. Ostrich eggshells are also discussed in the Annex.

842 Petrovic (2003) discusses exactly this topic in his research, with regard to foreign cult objects in the Late Bronze Aegean, but his main focus is the Greek Mainland.
However, it should be borne in mind that it was not only the Minoans that produced these items; other EM people copied (and were inspired by) Egyptian items too, in what may be phrased as a Middle and Late Bronze Age paroxysm of Egyptomania. As a result, these products circulated around the Mediterranean (via trade, exchange, networking, transmission of culture, patterns of movement of population, etc.), and it is sometimes extremely difficult to identify their origin and their itineraries in the trade routes.

Difficulties do not stop here. Researchers have to also consider why, and how, a foreign object reached a secondary environment (e.g. was it a product of trade? Was it a personal gift? Was it transported there by a diplomatic mission or a sailor? etc.). Even in the case where a locally produced item simply incorporates foreign features, again, it needs to be asked why a craftsman wished to copy or imitate an exoticum; and what encounter such an object would receive in his community.

Furthermore, with some Egyptianising artefacts looking remarkably Egyptian, and some Aegeanising ones looking remarkably Aegean, researchers should carefully investigate where, and by whom, the object was made and compare it with as many comparanda as

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843 See (table 27).
844 See for example [P19]. Since Egypt was a super-power of its time, it is only natural that it affected a wide number of cultures. See [§ Egyptomania] and Conclusions: 'Research question Five: Can one envisage a Bronze Age Egyptomania in the Aegean? Or, even, an Egyptian Aegeomania? What do archaeological finds and texts suggest?'.
845 This idea is associated with the 'koiné'.
Occasionally, the state of the artefacts does not allow researchers to establish a 'safe' conclusion about their origins and traffic.\textsuperscript{847} Needless to mention, the categorisation provided above is not at all definite. Some characteristics of artefacts co-exist, for example an antique item can also be modified, or, a replica / imitation can be identical to an antique. Academic opinions in scholarship vary. It is fairly common, therefore, that researchers disagree about the origin of finds, and even on matters of terminology.\textsuperscript{848}

However, for practical reasons, some categorisation of artefacts has been attempted in this work, according to their primary and secondary characteristics.\textsuperscript{849}

4.3.4 Practicalities

The following pages in this chapter\textsuperscript{850} discuss portable material culture in groups. They summarise the main points raised in the Annex,\textsuperscript{851} where a detailed, fully referenced discussion of the individual groups, examples of finds, and some statistical data are

\begin{itemize}
\item \textsuperscript{846} § comparandum; e.g. [P576] (pictures 8-10)
\item \textsuperscript{847} Such is the case of [K175]. Also, often, analysing samples taken from the artefacts is very inconvenient.
\item \textsuperscript{848} See for example [P153 \& P155] and 'The perception of foreign in the Aegean' in chapter Seven. On the varied terminology used by researchers for labelling the finds see the Introduction: 'Some clarifications on terminology'.
\item \textsuperscript{849} (tables 55, 56)
\item \textsuperscript{850} (4.3.4 to 4.3.6)
\item \textsuperscript{851} In both Volume Two and on the CD, as a fully searchable electronic document.
\end{itemize}
provided. The groups of items correspond to the similarly-listed sections in the Annex, where detailed references and examples are provided. The conclusions that the author has reached with regard to these groups of items are also included in the Annex.

Further comments on the Egyptian(-sing) material unearthed in the Aegean; and an examination of the mechanisms of production and circulation of these items, will be provided in chapter Seven, after the overview of all the evidence presented in this thesis.\footnote{I.e. this will be done after the examination of the written sources and portable finds in this chapter, and the two case-studies in chapters Five and Six. See chapter Seven: 'Some observations on Egyptian and Egyptianising material unearthed in the Aegean'.}

4.3.5 \textbf{Aegyptiaca on Crete and in the Archipelago}

(For detailed references and examples see the Annex)

Egyptian and Egyptianising artefacts discovered on Crete and in the Archipelago consist of vessels, scarabs, seals, beads, ostrich eggshells, statuettes and figurines, etc. Various genuine Egyptian items were transported from Egypt to the Aegean.\footnote{e.g. [P158]} Some were reworked and modified to suit local taste.\footnote{e.g. [P104]} Other Egyptian artefacts were probably appreciated as antiques.\footnote{e.g. [P115], [P584]} Aegean craftsmen imitated Egyptian items or they were inspired by them.\footnote{e.g. [K21]} Moreover, Egyptian artefacts were copied and imitated by craftsmen in Syria-Palestine, Canaan, Anatolia, etc. and they were shipped to the
Aegean. Some objects show characteristics of an artistic koiné.

1. **Some early artefacts**

A few early finds of the Third Millennium BC are provided in order to demonstrate that Second Millennium BC A-E exchange follows earlier patterns.

A closer look at the items, and the Aegean sites / contexts where these finds originate from, demonstrates that A-E interactions had been, since the Third Millennium BC, the privilege of the elite. A-E cultural and artistic influences were initiated around the Mid Third Millennium BC. However, some early Egyptian items must have been transported to the Aegean already as antiques.

2. **Scarabs, scaraboids and other stamp seals**

In the Aegean, the majority of seals are indigenous but imported Egyptian or Canaanite scarabs and scaraboids are not rare. Many seals, scarabs and scaraboids come from burials and administrative contexts. They were used as jewellery-parts, for administration, or simply as personal belongings. Aegean-made scarabs have derived directly from Egyptian parallels, but often, local imitations, or Egypto-Canaanite pieces discovered in the Aegean, lack artistic originality when compared to the Egyptian sources of inspiration. Foreign pieces were sometimes modified into Minoan aesthetics.

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857 e.g. [P114]
858 e.g. [K33]
859 These older artefacts are not be discussed in detail, since they are earlier than the time-frame of this thesis. Even so, more information about them can be found in the spreadsheet and in the Annex of finds.
860 Possible gift exchange; also the interest of the local elite for exotica. See (table 27).
861 This is obvious from finds such as Karetsou et al. 2000A: [1], stone vessel from Knossos.
862 e.g. [P105]
As an artistic fashion, Egyptianising scarabs from Cretan workshops first appeared at the Messara region, to later spread across the island.

3. **Artefacts found in the Aegean with names of Egyptian individuals**

The majority of the Aegeans could not read Egyptian inscriptions or recognise royal prenomina, but items bearing such texts have been found across the Aegean. These objects do not provide clear chronological links with Egypt because they either come from problematic archaeological contexts or, they were already antiques when imported to the Aegean. The majority are scarabs, with a few exceptions. Their context is often domestic or funerary. Because of their inscriptions, some may have obtained an apotropaic or cultic value in the Aegean.

4. **Egyptian standing hippopotamus deity and Minoan Genius**

The Minoan Genius, although influenced by Egyptian iconography, differs from the Egyptian parallels of the standing hippopotamus deity, and the two were developed independently. The Aegeans incorporated this image in a variety of scenes and manifested the Genius as a cultic, elite-associated, fantastic creature. The image became very popular in the Final Palatial and examples usually come from elite, domestic or funerary contexts. It was popular at Knossos.

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863 e.g. vessel [P114]. See the Annex of chapter Four for more examples.
864 [§ cultic].
865 Note that Weingarten recently (2013) examined the Minoan image of Egyptian Beset together with the transformation of the standing hippopotamus deity/ies to the Minoan Genius. For details see the Miscellaneous items in the Annex.
5. **Ape image**

The Aegeans adopted this image from Egypt, but the two were developed independently: for instance, Aegeans had not fully understood the physical traits of the animal; alternatively they intentionally demonstrated them carelessly. In the Aegean, foreign 2D and 3D examples are limited.\(^{866}\) The image became very popular in the Neo-palatial, but local workshops specialising in the production of ape-related items must have developed already from late Pre-palatial. Apes were more cultic in Crete and the Cyclades in comparison to the Mainland. Examples often come from elite, domestic / ceremonial contexts and burials.

6. **Cat image**

The three image variations: 'seated', 'wild' and 'cultic',\(^{867}\) appeared across the Aegean in several artistic media, from appliqués to frescoes. On Crete the cat image was favoured in the Pre-, Proto-palatial and Neo-palatial, when all items were locally-made. Different variations were favoured in different times; for instance, the 'wild' type was favoured in the Neo-palatial and Final Palatial. The image declined in the Final Palatial. Items with this image usually come from elite, domestic and ceremonial contexts, but not funerary.

7. **Crocodile image**

This image reached the Aegean from Egypt. The animal is not native in the Aegean, and

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\(^{866}\) e.g. [P126].

\(^{867}\) Details and examples for the different types are provided in the Annex.
information probably reached Aegean craftsmen through word of mouth. All five examples from the Aegean are locally-made, probably from the same workshop. No imported material is found so far. Four out of five items date from the Final Palatial onwards. The crocodile image was apotropaic in the Aegean.

8. **Waterbirds image**

These include swan, goose, duck 'regardant' and waterfowl. Only a few examples are found in the Aegean. Most are local, of problematic provenance and context, but some have come from funerary contexts. In Minoan Crete, locally-made items representing this image are usually small in size (seals, beads, etc.), whereas larger items date to the Mycenaean Crete, or they are Mycenaeanising.

9. **Gravidenflaschen and parturient images**

In the Aegean, these images are represented by pendants, figurines or vessels, and their context is frequently domestic, ceremonial or funerary. Items with such images probably maintained a ritual symbolism in the Aegean, but the vast majority are locally-made. In the Aegean, the gravidenflaschen and parturient images were developed independently from Egypt, although on Crete, the ape image must have influenced their artistic evolution.
10. **Vessels and containers**

- **Stone vessels**

These are locally-made or imported, Egyptianising but not necessarily Egyptian.\(^{868}\) They vary in shape, style, manufacture and material with different shapes becoming popular in different times and regions. The volume of Egyptian influence on Aegean stone vessel manufacture also differs depending on style, but it is unclear whether certain types of Aegean stone vessels were locally-inspired, inspired by Egypt, or influenced by other foreign sources. These stone vessels are found in various archaeological contexts. It is likely that specific Aegean workshops had the monopoly of making specific types of vessels. Crete circulated Egyptian and Egyptianising vessels to the rest of the Aegean and Cretan artisans often modified antique Egyptian stone vessels before redistribution. Many Minoan-converted Egyptian vessels were found at Knossos and Mycenae, in palatial and ritual contexts.

- **Faïence, Egyptian blue and glass vessels**

They mostly come from elite, palatial or funerary contexts. Examples are few, and most date to the Neo-palatial; with the exception of glass vessels that date from the Final Palatial onwards. The low number of these items is insufficient to confirm whether there

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\(^{868}\) i.e. inspired by Egyptian types, imitating Egyptian types, or inspired by / imitating vessel types that were an artistic koiné in the Eastern Mediterranean and the Near East.
was an organised trade of these items or not. The majority of these vessels are finished products but there are indications that material and (possibly) technology, may have been imported as well. The Aegeans were not confident with the production of faïence, nor did they value 'Egyptian blue'. The Mycenaeans, and not the Minoans, were the first to make glass.

- **Ceramics**

Imported vessels of Egyptian clay and manufacture reach Crete from the reign of Thutmose III onwards, and many Egyptian pots, of various shapes and sizes, were discovered at Kommos. Such vessels, particularly the closed types, operated as containers. In general, Egyptian pots did not influence local manufacture.

11. **Ostrich eggshells**

Ostrich eggshells, imported to the Aegean but not necessarily from Egypt, were often converted into rhyta, and are found on Crete, the Cyclades and the Mainland. Most examples date to the Neo-palatial. They usually come from elite, palatial, ceremonial or funerary contexts. Their exact use is unknown, although eggshell rhyta could be cultic vessels.
12. **Pendants and amulets**

These are found on Crete and beyond; see e.g. the Aigina Treasure. Sometimes it is impossible to confirm whether an item functioned as a pendant or an amuletic device. Most come from tombs. At least during the Pre-palatial and Proto-palatial, the Minoans favoured foreign-style amulets and pendants of naturalistic nature, such as flies, apes, birds. These items were used in everyday life and as burial goods.

13. **Aigina treasure**

The treasure, which mainly consists of jewellery, probably comes from one or more MH tombs at Aigina Kolonna. The Aegean craftsmen who produced the items of this treasure certainly received influences from Egypt and the Near East. The latest major publication on the Aigina treasure is the edition of Fitton (2009), where the treasure is catalogued and discussed in detail. In this edition, the items' origin and date, and the exact number of craftsmen who produced them, were all explored.\(^{869}\)

14. **Miscellaneous items**

Some items have been grouped separately by the author, as they do not belong to any of the groups presented above. A representative number of some noteworthy miscellanea is discussed in the Annex of finds.

\(^{869}\) Some questions in the edition of Fitton (2009) were: One provenance or many? Where all items contemporary or some are older than others?
4.3.6 Aegean and Aegeanising items unearthed in Egypt

(For detailed references and examples see the Annex)

The following paragraphs summarise the discussion of Aegeaca in Egypt, as provided in the Annex. Aegyptiaca from the Aegean outnumber Aegeaca / Minoica from Egypt. In fact, the vast majority of Aegean and Aegeanising items discovered in Egypt are ceramics. Both Middle Minoan and Late Minoan pottery have been unearthed on Egyptian sites.

In Egypt, Minoan pottery generally presents more individuality and character than Mycenaean pottery. Mycenaean pottery is mass-produced, and many vessels are containers.

With regard to archaeological context, there is an accumulation of Aegean pottery in urban centres. It is found in funerary, domestic, and occasionally ritual (but not necessarily elite-related) environments. For instance, various local socio-economic strata consumed Kamares pottery. The analysis of the finds suggests that Aegean pottery was even copied in Egypt. Some Aegean(-ising) finds from Avaris could suggest a special relationship of the citadel with the Aegean.
4.4 Re-evaluating the exchange of exotica through Game Theory and the World Systems approach

After discussing exotica and their distribution, it can be concluded that:

A) From the GT point-of-view:

- The 'game' is the market. Yet, the market is not the only motive for the A-E exchange of exotica. International relations, and whatever these involve (politics, transcultural affairs, etc.), also contribute to such an exchange. The game is cooperative and non-cooperative at the same time. Market competition can be seen in the production and circulation of imitations of exotica.

- In the case of exchanges in the EM, a 'player' is whoever participates in the production, consumption, purchase, commission, distribution and redistribution of exotic(-like) items.

- The game's 'payoff' is not mere profit accumulation and the game is not as

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872 See [§ mercandilism].
873 For the reasons why, see chapter Two, 'Game Theory and Aegean - Egyptian relations': III) autarky and the market and VI) expansionary policy.
874 For the reasons why see [§ imitations of foreign items, § replicas of foreign items]. Imitations of exotica were a universal phenomenon, as seen in (table 27). Such items are e.g. [P490] and [Cairo Museum JdE 92304] on the spreadsheet.
875 See chapter Seven: 'The protagonists of Aegean - Egyptian interactions: c 1900-1400 BC' where these 'players' are named.
simple as 'my profit, your loss' ('zero-sum game'). Instead, there are various economic, political, cultural and technological payoffs and side-payoffs for all players participating - Aegeans, Egyptians or others. For instance, the circulation of faience products promoted the technology of faience-making, for faience to eventually become associated with the upper class, and receive special cultural values in the Near East.

- The game 'strategy' consists of a mixture of set movements, which could be examined within the GT terms of coalition and particularly, Evolutionary Game Theory. Whereas a coalition is not necessary for the exchange of exotica, exchange is aided by multi-faceted coalitions such as intra-state diplomacy and trade associations. Additionally, as seen in the processional scenes in the Theban tombs of nobles, from the viewpoint of economic exchange, each party is absorbed into (or rejected by) international coalitions and treaties, depending

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876 See Holt 2006: 6-8 for a discussion of zero-sum games. Also, chapter Two: 'Game Theory and Aegean - Egyptian relations' and [§ equilibrium, § game, § Decision Theory] for an explanation of how a game reaches one or more payoffs.

877 As seen in the Annex, where faience technology and vessels are discussed (with the group 'Faience, Egyptian blue and glass vessels).

878 Faience and its manufacture was often associated with the palace elite at the time. For instance, it is likely that faience workshops operated at Amarna (Petrie 1894: 25-30; Nicholson 1995; for other Ancient Egyptian faience workshops, see Nicholson and Peltenburg 2000: 182-184, with further examples). Such workshops also operated on Crete (see Foster 1984).

879 See Sinclair 2012, particularly the discussion of the 'International Style' of faience in pages 122-123 and 136-138, referring to the 'elite' and other cultural associations of faience in Egypt, Syria, the Greek Mainland and elsewhere.

880 i.e. a [§ mixed strategy equilibrium]. For how a game with multiple strategies operates see chapter Seven: 'Searching for equilibria in Aegean - Egyptian interactions'.

881 [§ Evolutionary Game Theory].

882 See, e.g. the suggested political alliances that may explain exotica such as the Avaris frescoes at Tell el-Dab'a (chapter Five). Also, chapter Seven: 'Possible Aegean - Egyptian alliances and treaties'.

883 Chapter Six.
on the overall benefit of the group at a particular time. The operation of Kaptaran traders at Mari and Ugarit can be also interpreted in a similar manner.

- Lastly, media for the completion of these strategies are the exchanged items: serving unique purposes, from profit making (trade), to diplomacy (gift-exchange), and to linking cultures together (e.g. imitations of foreign items, or koiné).

Likewise, it is notable that

**B) from the WS point-of-view:**

- The nature of A-E exchange highlights the economic profile of both cultures and the adaptability of their economies for the purpose of serving international networking. For instance, Cretan workshops in palaces and large villas were producing luxury items, some of which would be aimed specifically at international elite audiences.

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884 The latter occurs if A-E economic and political transactions are seen within the spectrum of Evolutionary Game Theory. See chapter Two: 'Game Theory and Aegean - Egyptian relations': IV) conflict and coalitions. Another example of how this can be seen is the evolution of games.

885 See (tables 28, 41b).

886 In the sense of accumulation of (luxury) goods and social prestige; and not in the sense of money, as happens nowadays. For instance, such items are copies and imitations of Egyptian scarabs, made by non-Egyptians, because of their market popularity (see the Annex with examples).

887 e.g. the Avaris frescoes 'as a diplomatic gift' (chapter Six).

888 As the author will show at the end of chapter Seven, exchanged items function pro aequilibrio. The Annex presents some examples.

889 e.g. the Minoan textile industry (Alberti 2007); see (table 41b). For faience workshops in Crete and
• Surplus (e.g. luxury finished goods, metals and other raw materials) is transferred among WS zones.\textsuperscript{890} Egypt as a core and super-hegemony exploits peripheral zones (among them the Aegean) via exchange.\textsuperscript{891} The marginal / peripheral Aegean is influenced by the core, along with other (semi-) peripheral cultures.\textsuperscript{892}

• Circulation of exotica by private enterprise may also point to a certain degree of political decentralisation.\textsuperscript{893} For instance, in Neo-palatial Crete, political decentralisation coincides with the prime of international trade and the flourishing of elite households.\textsuperscript{894} Such a decentralisation of power is also evident in Egypt.\textsuperscript{895}

• Exchanged high-valued exotica travelling within the Aegean, Egypt or other regions, as market products, diplomatic gifts or other, demonstrate prestige, wealth accumulation and proto-capitalism (as seen, e.g., in the Amarna...
Letters). Such items and their imitations also express the globalisation and 'oikumenic' character of world economy, as described by Wilkinson.

- Andrew Sherratt has rightly pointed out that the A-E economic relationship encouraged social stratification and the division of labour. Cline, for instance, has reached a similar conclusion with respect to Minoan and Mycenaean individuals abroad.

- WS trade was adaptable and multi-directional, and it was trade professionals who defined the A-E economic relationship. Without the merchants and other trade specialists (e.g. sailors and travelling professionals) A-E (and EM) exchange would be practically impossible, as these individuals were, in practice, the principal connectors of trans-regional economies.

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896 See (table 27), particularly economic principle N. The Amarna Letters (Moran 1992) manifest elite prestige, wealth accumulation and proto-capitalism via the exchange of luxury items and high-valued raw materials. Nonetheless, the term 'capital' should be used with limitations in the study of Bronze Age relations, because it is usually associated with modern economics, and specifically with wealth in the form of money. The definition of [§ capital] in the terminology explains this concept in detail.


898 Sherratt A. 1993b: 245. See chapter Two: 'The world system/s approach'.

899 Cline 1995b: 276-281. Similarly, the present writer sees division of labour in A-E relationships: See chapter Seven: 'The protagonists of Aegean - Egyptian interactions: c 1900-1400 BC'.

900 See (table 27), particularly economic principle D.

901 See chapter Seven: 'The protagonists of Aegean - Egyptian interactions: c 1900-1400 BC', where the importance of these individuals is highlighted.

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CHAPTER FIVE

AEGEAN - AVARIAN INTERACTIONS AND THE AVARIS FRESCOES

Good god Seweserenre, son of Re, Khyan (Khyan's lid from Knossos). 902

This chapter is a brief summary of the evidence obtained from the examination of the Minoan (-style) frescoes found at the 'Ezbet Helmi palatial complex of Avaris. 903 The dating of these frescoes, and thus their potential impact on interconnections, has been shifted from the late Hyksos Period, to the early eighteenth dynasty, and lately, to the Thutmoside period. 904 The new chronology brings these murals more in line with the era of extended A-E relations and the Aegean luxury gift-offering to the Egyptian Court, as illustrated in the Theban tombs of the nobles during the reign of Hatshepsut and

902 See [P163].

903 nTf nfr swsR-n R3 s3 R6 hy-3n Avaris in Egyptian hieroglyphs (Wb 1, 287.8). The name literally means 'the house of the department' or 'the house of refuge'. The author would like to thank the Tell el-Dab'a mission for allowing her visit the site and see the fresco fragments in storage, in September 2011.

904 Bietak et al. 1996 for the initial dating of the frescoes and Bietak 2007a: 13-44; Kutschera et al. 2012 for the latest chronological estimation.
Thutmose III. As the Avaris frescoes have so many similarities with contemporary Aegean frescoes, it is interesting, for the purpose of this research, to re-visit previously expressed theories on the origin, artistic techniques and cultural background of the painters who painted them. The evidence itself gives an added dimension to the issue of cross-cultural connections between the palaces in Egypt and the Aegean and, at the same time, raises questions about concurrent chronology and history.

Unfortunately the space restrictions of this chapter do not allow the author to refer to each one of the Avaris fresco scenes individually and in detail. The objective of her work is not to thoroughly discuss the iconographic aspects of these wall-paintings, but rather, to highlight the nature and key-players of any contacts between Avaris and the Aegean, within the WS and GT approach. Only a few fresco scenes will be mentioned as case-studies, in order to demonstrate the background of the author's concept concerning the A-E interconnections. The chapter will begin with an overview of the site of Tell el-Dab'a, and specifically the palatial complexes in the vicinity of 'Ezbet Helmi, i.e. the area where the fragments of frescoes were discovered. Subsequently, a few of these reconstructed wall-paintings will be mentioned, together with some

905 See chapter Six.
906 Only some fresco fragments have been published so far and research is still ongoing. Within the field of the Avaris murals, recent noteworthy studies have been conducted by various researchers. See Shaw 1995; Bietak 1996, 1997, 1999a; Betancourt 1997; Poursat 1999; and the major iconographic studies of Bietak et al. 2007a (bull-leaping scenes); Morgan 2004 (feline hunters); 2010a (griffin); 2010b (leopards), Marinatos 2010b (lions), Marinatos and Morgan 2005 (dog pursuit and hunting scenes); Aslanidou 2005 (life-size male figures); 2007 (ornamental patterns and emblems); 2012 (textiles). More fragments are about to be published by Von Rüden (forthcoming 1 and forthcoming 2). The plan of the mission is to publish an update of the hunt scenes in a separate edition.
907 The material accompanying this chapter (sheet: Avaris frescoes, on the spreadsheet - CD) is for reference only. Nevertheless, it provides an overview of the iconographic themes of the Avaris frescoes and some suggested reconstructed scenes, along with citations for further reading.
iconographic parallels. Through this discussion the author will demonstrate the A-E liaison and what lay behind it, i.e. its social and economic motivation.

5.1 History of Research

The Hyksos capital of Avaris is today identified with the archaeological site of Tell el-Dab'a.908 (Map XI) provides a general plan of Tell el-Dab'a with major archaeology cited. (Table 50) provides the history of the site and (tables 7,8) the chronology and stratigraphy of 'Ezbet Helmi.909 The settlement site has been undergoing excavation since 1885.910 In the mid sixties, the mission of the Austrian Archaeological Institute in Cairo uncovered a mixture of both Egyptian and Syro-Palestinian material, indicating the site to be the place of origin of most of the Hyksos kings.911 From the nineties onwards, the Austrian mission concentrated on an area at the western edge of the site, known as 'Ezbet Helmi (area H), where, initially, a large palace-like structure was

908 The site is situated 8 km (about 5 miles) north of Markaz Faqus, eastern Delta, 30° 47’ N, 31° 50’ E. See (map II).
909 (Table 7) can also be seen in Bietak 2007a: 16 and Philip 2006: 24. Philip (2006) has conducted research on the metal and metalworking evidence discovered at Tell el-Dab'a (Late Middle Kingdom and the Second Intermediate Period) and his research highlights the early interconnections of the citadel and the citadel's mixed population and multicultural community. See also the fully-published radiocarbon results from Tell el-Dab'a in Kutschera et al. 2012.
910 The site covers an area of at least 250 hectares. The numbers are 250 ha=2.5 square kilometres or about 977 square miles. The site was first excavated by the Swiss Edouard Naville in 1885. In 1941-42 Labib Habachi excavated there for the Egyptian Antiquities Service and suggested the identification of the site with Avaris. In 1951-1954 Shehata Adam worked on twelfth dynasty on-site archaeology at Esbet Rushdi. The Austrian Archaeological Institute in Cairo conducted research at Tell el-Dab'a from 1966-1969, and from 1975 onwards. Nowadays a few standing remains are still visible and excavation, survey and geophysical research is still ongoing. Excavation would not be sufficient to explore the site in a lifetime and only a small part of the palatial quarters has been explored so far. Therefore geophysics is of fundamental importance for the understanding of local archaeology.
911 See Bietak 1996: 32, area FI. See also the metal evidence from the late Middle Kingdom and the Second Intermediate Period in Philip 2006.
discovered and dated to the Late Hyksos Period (Late Hyksos period: ph. D/2, str. e/2- 
f). The archaeological evidence indicated that the king, and palace officials, had 
begun to develop foreign trade.

In the last two decades, apart from more intensive exploration of the Hyksos period 
arkeology, the Austrian mission has also discerned, at 'Ezbet Helmi, two strata of the 
early eighteenth dynasty (ph. D/1, str. e/1) and a Thutmoside palace district (ph. C/3-2, 
str. d-c); numerous other archaeological features dating to the years after the fall of 
Avaris and until the reign of Amenhotep II, in addition to several burials dating from 
late thirteenth dynasty through the Hyksos Period and New Kingdom.

'Ezbet Helmi archaeology covers a time frame from the Middle to Late Hyksos period 
until the reign of Amenhotep II and, after an interlude, from the reign of Amenhotep III 
until the Late Period. 'Ezbet Helmi archaeology after Amenhotep II will not be 
discussed in this thesis; nevertheless, this includes the fortress of Horemheb,

912 (maps XI, XII). See Bietak 2007a: 14-20 for the large palace structure of the Hyksos period. This 
structure was built over a domestic area dating to the Middle to late Hyksos Period (ph. D/3-2 = str. 
g). The site is known as Tell el-Qirqafa / 'Ezbet Helmi, just west of the modern village of Tell el- 
Dab'a. From 1975 onwards, excavation has been conducted by the Institute of Egyptology at the 
University of Vienna, in co-operation with the Austrian Archaeological Institute in Cairo.

913 Bietak 1996: 26

914 The Hyksos and Thutmoside palace districts were superimposed. See Bietak 2007a: 18-40.

915 Domestic areas, magazines, etc. Some of these archaeological features will be examined in the 
forthcoming pages.

916 (table 7). For example, single and multiple burials dating the strata of the very early eighteenth 
dynasty were victims of war, executions and epidemics. Pits also contained horse and mule burials. 
Burials of the early eighteenth dynasty and Thutmoside Period contained skeletons of Nubians and 
Kerma pottery. Nubians were part of the Egyptian army at the time (see Bietak 2007a: 19). One 
should also mention the burial ground of the Ramesside Period.

917 It is irrelevant to the Minoan frescoes.
Ramesside cemeteries and a Late Period settlement.⁹¹⁸ Overall, the site of Tell el-Dab'a has produced archaeological remains from the Heracleopolitan Period to the Late Period.⁹¹⁹

Because of the immense area that the site covers, geophysical survey, along with excavation, are important for the understanding of local archaeology. Geophysics at Tell el-Dab'a (2010) led to the discovery and evaluation of a new densely populated area of Avaris, i.e. the southern suburban quarters. After seasons 2010-2013, it is now assumed that the city covers a larger area than initially estimated and further on-site research is necessary.⁹²⁰

5.2 The site

Avaris was situated in a strategic position.⁹²¹ Located on the navigable Pelusian branch of the Nile,⁹²² it gave direct access to the Mediterranean. Easily accessible and thus,

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⁹¹⁹ (table 50)
⁹²⁰ A combination of magnetometry and resistivity survey has been applied. See communication on Egyptologists' Electronic Forum (EEF): 'Breaking news: ground radar survey of Avaris', 20-21 June 2010. The preliminary report on the geophysics that took place in 2009 and 2010 is Forstner Müller et al. 2010. See also the results by Taha et al. 2011, the preliminary reports of seasons 2012, 2013 at Tell el-Dab'a: Forstner Müller et al. (n.d., online, on http://www.auaris.at/downloads/Report_SCA_engl_arabic_small.pdf) and Bietak et al. 2014B, the latter discussing the excavations of the Hyksos palace (2011 season). Briefly, the 2011/2014 seasons excavated and investigated with geophysics the 'Hyksos palace' and area R/III (residential quarter); area R/IV (where the main port of Avaris was assumed to be located), and area F/II and AI (see the previously mentioned reports).
⁹²¹ (map II)
⁹²² (map XI)
open to foreign elements, it became a provincial centre and finally one of the largest cities in Egypt during the Second Intermediate Period and the dawn of the New Kingdom.\textsuperscript{923} The site was settled very densely and the local population, with its international connections, participated extensively in both economic production and consumption.\textsuperscript{924} As a major trading partner, Avaris linked variously, at different historical times, Upper Egypt, Asia and South Arabia via African trade routes. It also connected the Delta, and various southern Nilotic sites, to the rest of the Mediterranean basin, including the Levant, Byblos, Cyprus, the Aegean and Crete, and possibly the silver mines in Spain.\textsuperscript{925}

Until the end of the nineties the Austrian mission presumed that Avaris, after its conquest by the Egyptian Pharaoh Ahmose (about 1567 BC), had been abandoned for more than two hundred years, and that c 1300 Seti I and Ramesses II founded in its place the historical town of Pi-Ramesse.\textsuperscript{926} Archaeological evidence however, has belied the theory of the abandonment of the town, indicating that the former Hyksos capital had continued to play an important role in the history of the early New Kingdom. As a matter of fact, certain parts of the city, including 'Ezbet Helmi', were re-occupied in the early eighteenth dynasty.\textsuperscript{927} In area H, excavation of the palace complex of the Thutmoside period opened a new chapter in A-E interconnections, as, judging from the

\textsuperscript{923} Bietak 1996: 7-9  
\textsuperscript{924} Bietak 1997: 97  
\textsuperscript{925} Holladay 1997: 209; O'Connor 1997: 62.  
\textsuperscript{926} Bietak et.al. 2007: 13-14. The modern village of Qantir (Khatana-Qantir), about two kilometres north of the Tell el-Dab'a site, marks the area of ancient Piramesse.  
\textsuperscript{927} Bietak 1996: 67-70; Bietak 2007a: 14. The Egyptians effectively built on top of Hyksos ruins in parts of the citadel. See also Bietak 2011b on the possible presence of a Hyksos minority in Avaris.

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archaeological finds, parts of this district were decorated with Aegean murals.\footnote{928} Moreover, the 1999 expedition revealed occupational strata of the Amarna and post-Amarna Period; among them a fortification wall which was part of a fortress used during the reign of Tutankhamun and Horemheb. Evidence of continuous occupation during the eighteenth dynasty was also brought to light in the temple of the local god Sutekh (a.k.a. Seth), which Tutankhamun and Horemheb seem to have rebuilt after the Amarna Period.\footnote{929} It is now known that parts of the city of Avaris were absorbed into the administrative centre of Per-Ramesse (or Pi-Ramesse, the 'house' of Ramesses), when, in the nineteenth dynasty, Ramesses I moved the capital from Thebes back to the Delta.\footnote{930}

Excavations at Tell el-Dab'a, 'Ezbet Helmi, have been very productive. Work over the past twenty years has improved the understanding of the site. The area includes features such as a massive fortification wall with a monumental doorway, a large palace compound, gardens and possibly vineyards, workshops, burial plots, temples and the remains of troop encampments.\footnote{931} All these features are associated with different

\footnote{928} These will be discussed in the following pages.
\footnote{929} Bietak 2007a: 14. Bietak suggests (2007a:14) that Seti I, in the early nineteenth dynasty, had refurbished the royal temple of Sutekh along with his royal residence at Qantir.
\footnote{930} Ibid. The modern village of Qantir (Khatana-Qantir) marks what was probably the ancient administrative centre of Pi-Ramesse. Avaris is in close proximity with the archaeology of Pi-Ramesse, Bu-Bastet and San Al-Hagar and the construction of a museum dedicated to the archaeology of the four cities has recently been announced in a press report (http://weekly.ahram.org.eg/2010/1004/fr2.htm \textsuperscript{,} 'One less lost city' by Nevine El-Aref, in Al-Ahram weekly, last accessed May 2013).
\footnote{931} Due to space restriction, the author can only provide a very brief description of the site in this chapter. For a detailed description, see Bietak 1981,1996,1999b: fig. 16; 2000: 33-42; 2005: 75-78; Bietak, Hein et al. 1994: nos. 126, 130, 131, 133; Bietak 2007a: 14-25, and Kutschera et al. 2012 for chronology. See also note 920 for the most up-to-date sources and preliminary reports for Tell el-Dab'a.
chronological periods and archaeological contexts.  

The following brief description of the stratigraphy of 'Ezbet Helmi focuses on archaeological features that are relevant to the setting of the fragments of murals. It is also important for the understanding of the date of the Aegean frescoes at Tell el-Dab'a.

In the late Hyksos Period belongs the so-called phase D/2 and the stratum e/2-f, i.e. the stratum of the Hyksos palace fortification. All the late Hyksos Period and early eighteenth dynasty archaeological features are given names initiated with the letter H, i.e. H/I to H/VI. According to Bietak, no trace of painted lime plaster has been found on the walls or in the debris of this stratum; the only mural paintings found there were produced in the secco technique and these are irrelevant to the Minoan (-ising) frescoes in question. The citadel of phase D/2 and the late Hyksos Period consisted of the following:

1. Remains of a fortification wall along the banks of the Pelusiac Branch of the Nile [A], north of features H/I and H/IV. The wall is made of mudbrick and it is

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932 The overview of the stratigraphy presented here is directly related to the setting of the frescoes' fragments.


934 The only paintings found in this stratum were made in secco technique on mud coating, and they were Egyptian blue or yellow, with linear motifs, or with hieroglyphs. See the following page, and note 943.

935 The description is based on Bietak 2007a: 14-18.
about 6.3 m wide.937

2. Gardens of the late Hyksos Period [B], to the south of wall [A]. Gardens of the same period were also discovered in area H/III. These are probably the gardens-vineyards, mentioned in the second Kamose stela.938

3. A monumental construction on a low platform in area H/III [C]. It is orientated the same way as the fortification wall [A] and it was later expanded westwards, where remnants of the walls of a building were found. Another construction of unknown size was traced to the west.939 A well-constructed water supply system was identified between the two above-mentioned buildings.940 This likely served the needs of the main palace building of the late Hyksos period and was probably destroyed by the modern road to Tanis and the Didamun Canal.941

4. Walls, remains of a mansion and a pavement made of mudbrick (probably associated with the main late Hyksos Period palace structure) were discovered in area H/VI, during season 2002.942 Traces of wall-painting with loam coating, in secco (see previous page) and parts of hieroglyphic inscriptions were also unearthed in the same area.943


938 ‘Does your heart fail, O you vile Asiatic? Look! I drink of the wine of your vineyards which the Asiatics whom I captured pressed out for me. I have smashed up your resthouse, I have cut down your trees, I have forced your women into ships’ holds, I have seized [your] horses...’ (As translated in Redford 1997: 1ff).

939 Bietak 2007a: 16

940 to the west of H/III.

941 Bietak 2007a: 16.

942 Ibid. This is the not-yet-found palace building mentioned in the previous paragraph.

943 Mural painting fragments have survived, with blue, red and white stripes, their upper part painted yellow. These probably imitated carpets in painting. The ceiling was also painted blue. See Bietak 2007a: 17. See note 935.
5. Settlement remains were found in area H/V west; and the area south of the palace precinct in area H/VI-South and H/VII.\textsuperscript{944}

The so-called phase D/1, strata e/1.2 and e/1.1 date to the beginning of the New Kingdom.\textsuperscript{945} Stratum e/1.2 was found in area H/III and in H/VI south. In this phase, the late Hyksos Period platform [C] was replaced with a storage compound with more than thirty silos, probably used to store enormous quantities of grain for supplying troops (these were probably built by Ahmose, immediately after the fall of Avaris). More silo complexes were found in area H/VI within a palatial compound enclosed by an enormous mudbrick wall. However, according to Bietak, nowhere in this context have wall painting fragments come to light.\textsuperscript{946} Stratum e/1.1 consists of pit graves for single or multiple human burials, the majority of which were without any offerings.\textsuperscript{947} Single human burials were also discerned along the southern wall that encloses the palatial compound in area H/VI.\textsuperscript{948} These early eighteenth dynasty burials are suggested by Bietak to be soldiers and other victims of war, epidemics and executions.\textsuperscript{949}

\textsuperscript{944} Bietak 2007a: 17 and \url{http://www.auaris.at/html/ez_helmi_en.html}; the link including the updates of 2007 for the discovery of the settlements. For a brief discussion of the pottery unearthed from phase D/2 to the end of the Hyksos Period see Bietak 2007a: 17-18. Some objects recovered from the Late Hyksos Period strata bear Hyksos royal names; their pictures can be seen on the previous web address. A pseudo-naos of Apophis and his sister Tany has also been discovered. See Bietak 2007a: 17.

\textsuperscript{945} (tables 6, 7). These were the two strata between the Late Hyksos and the Thutmoside Period archaeology.

\textsuperscript{946} Bietak 2007a: 18. For the finds from phase D/1, stratum e/1.2 see \url{http://www.auaris.at/html/ez_helmi_en.html} (last accessed in May 2014). These include clay models of food and domestic everyday items, i.e. loaf of bread, chunk of meat with hieratic inscription, baskets, etc., various types of pottery and animal and human remains. Ritual meals may have taken place there, judging from the number of animal bones, especially of bulls.

\textsuperscript{947} Bietak, Dorner & Janosi 2001: 67-74; Bietak 2007a: 18.

\textsuperscript{948} Bietak 2007a: 18. The area H/VI was excavated during Spring 2002. Pit graves were found within the compound (H/VI), cut into the ph. D/2 Hyksos Period features. These included horse and mule burials. Outside of the compound, burials differed in type.

\textsuperscript{949} It is, thus, suggested by Bietak that a military camp must have been located nearby.
human remains show Negroid physical characteristics; thus, it is possible that south
Nubians were employed by the Pharaoh to work as archers in the Egyptian army.\textsuperscript{950} No
wall paintings or wall plaster fragments have come from either this stratum or the burial
context.\textsuperscript{951}

Phase C3-2 (stratum d-e)\textsuperscript{952} is associated with the palace district of the Thutmoside
Period.\textsuperscript{953} The early eighteenth dynasty palace district covers the same ground as the
Hyksos citadel.\textsuperscript{954} Excavations, and geophysical surveys, have revealed a smaller [F]
and a larger [G] palatial structure, set up parallel to each other.\textsuperscript{955} A courtyard with an
artificial lake [P] was enclosed between the two palatial structures. Another palace-like
structure [J] is attached to the south of palace [G].\textsuperscript{956} The upper storeys of buildings [F]
and [G] were accessible via ramps attached to their north-eastern face. Another ramp
provided access to building [J]. All three buildings are surrounded by a wall [H] which
has a monumental doorway with pylons in the middle of its north-eastern face, and a
second gate leading directly to the ramp of palace [G]. The enclosure wall [H] and
palace [F] cut into the defence wall [A] of the late Hyksos Period.\textsuperscript{957}

\textsuperscript{950} Bietak 2005: 75. The theory is also supported by the discovery of various Kerma finds belonging to
this context, such as fragments of cooking pottery, beakers, etc. Also, various eighteenth dynasty
Theban frescoes depict Nubians as archers and soldiers in the services of the Egyptian king (Bianchi

\textsuperscript{951} Bietak 2007a: 20

\textsuperscript{952} (map XI)

\textsuperscript{953} This phase can be subdivided. This stratum is of significant importance for the chronology of the
frescoes.

\textsuperscript{954} Bietak 2007a: 20. Nevertheless, the orientation of the two palace districts differs.

\textsuperscript{955} For geophysical research on-site see notes 937 and for the latest geophysics (after 2010), note 920.

\textsuperscript{956} Building [J] will not be described in detail in this paper, contrary to buildings [G] and [F] that ought
to be examined thoroughly as they are strongly associated with the Minoan paintings. See Bietak
2007a: 25 for a detailed description of palace [J].

\textsuperscript{957} Bietak 2007a: 20-21
Palaces [F], [G], [J] and the enclosure wall [H] belong to phase C3-2/str. d. The wall paintings of lime plaster, i.e. the Minoan (-ising) murals discussed in this thesis, which are associated with buildings [F] and [G], belong to this phase. During the next phase, C3-2 / str. e, all the above buildings were re-used after repair. However, the wall plaster of lime was replaced by a new wall coating, this time without paintings. Gradually, the site expanded: during this phase two workshops were built, workshop [W2] with offices and magazines, and workshop [W3] against the enclosure wall [H]. More magazines [K] were added south-west of structure [F], in use until the reign of Amenhotep II. Houses [I] have been discovered north of palace [F] in area H/1. They date from Thutmose III until at least Amenhotep II. Houses [O] have also been discerned by geophysics in the area south-west of palace [G]. Building [L] is situated to the south of palace [G]. Last, north east of the palace district there is another enclosed structure [N].

Of particular interest are the two palace districts [F] and [G], discussed in greater detail in the following paragraphs, since they are linked to the Minoan murals in question. Although only the substructures of these palaces have been preserved, it is possible to reconstruct the plans based on the excavation and geophysics, along with existing

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958 Bietak 2007a: 21
959 Bietak 2007a: 21, 26-40. Wall paintings flaked away in the end of stratum d.
960 [§ magazine].
961 Bietak 2007a: 21. These magazines date to phase C2, stratum e.
962 i.e. second half of the fifteenth century BC. See Hein 2001b: 122-126, fig. 3
963 Their exact date is still in debate, as the area is awaiting excavation. See Bietak 2007a: 21.
964 Bietak 2007a: 21
Excavation in area H/I has revealed a large platform structure made of mud-brick. The structure, associated to palace [F], had military, diplomatic and perhaps even religious use and is of special architectural and decorative significance. The soil context inside the walls of this platform has produced sherds of the late Hyksos Period, perhaps because the building cuts into the extended late Hyksos Period fortification wall [A], area H/I. Dating the platform to the period from Ahmose to Amenhotep II is based on its architectural style and the scarabs and pottery found in situ. The building was accessible via a ramp, attached at the north-eastern flank of the platform. This ramp also cuts into the remains of the Hyksos fortification wall [A]. Thus, it must have been constructed within a long breach of this Hyksos wall [A], as, according to geophysics, the north-eastern enclosure wall [H] of the eighteenth dynasty crosses the Hyksos wall [A].

The palace compound [G], far larger than [F], coincides the area H/II-III and H/ VI. It has been carefully excavated and surveyed by geophysics. Only the lower parts of the

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965 Bietak 2005a: 76
966 It is the only structure preserved from palace [F].
969 Bietak 2007a: 21-22. Some Aegean frescoes were found along the stump of wall [A]. It is true that layers-over-layers and strata-over-strata in the area H/I and palace [F] could have made dating archaeological features and artefacts problematic in the past, since, to the author’s opinion, it is theoretically possible that archaeology was disturbed in places. Yet, Bietak appears confident about the stratigraphy of H/I and palace [F] (Bietak 2007a: 22).
970 For similarities of the Avaris palace compound [G] to parts of another building at Deir el-Ballas, the
very sturdy walls are preserved today. Some of the rooms on the ground floor of this
building were magazines with the possibility that this space was also used as an office
in the south-eastern strip of the platform. There is also evidence to suggest that the
building had an upper floor: at the north-eastern edge of the palace a ramp led to an
open terrace. The ground floor also included a portico, three rows of columns deep,
leading to a broad vestibule with two rows of columns, and, from there, to a large
square hall. This room was c 55 x 55 cubits, with four rows of columns in the south-
eastern part and an equal-sized room in the north-western half. Apart from the large hall,
probably functioning as a throne room, there was also a sanctuary, a temple and private
apartments, bathrooms and other rooms of residential character.  

5.3  The Aegean (-ising) Avaris frescoes

5.3.1 Iconography of the Avaris wall paintings

Even though there is uncertainty on the exact iconographic details of the frescoes,
various reconstructions have been suggested, based on a) numerous iconographic
parallels from the murals in the palaces of Crete, Thera, the Greek Mainland, Kabri,
Alalakh, and Qatna, and b) iconographic and thematic similarities with portable
artefacts (such as seals, etc.) from Crete, the Aegean and the Greek Mainland.  

971 The temple was probably the residence of dynastic god Amun or the local god Seth. For a detailed
972 A detailed discussion of individual Aegean frescoes along with previous scholarship can be found in
the work of Immerwahr 1990. Pictorial painting in the Aegean (including bulls, various plants and
foliage, human figures, spirals, etc.) first appears at Knossos in MM IIIA. For the most recent detailed
publication of Bietak et al. 2007, the Avaris bull-leaping scenes are examined thoroughly and compared to iconographic parallels from the Aegean.973 Other researchers examining individual iconographic elements of the Avaris frescoes are the following: Marinatos 1998; 2010b, Morgan 1988; 1995; 1996; 2004; 2010a,b; 2012 (particularly reporting on hunting scenes, feline iconography and fauna in general); Marinatos and Morgan 2005 (dog pursuit and hunting scenes); Aslanidou 2005 (life-size male figures); 2007 (ornamental patterns and emblems); 2012 (textile fragments); Becker, et al. 2014 (animal fight); Von Rüden forthcoming 1 & 2 (Avarian 'Prince of Lillies') Bietak et al. 2014a (the latest preliminary report for the frescoes).974

The thematic units of the Avaris iconography are the following:975

- Scenes with bulls and acrobats (I)976
- Landscapes, including flora (II)977
- Human representations (life-size male figures and small scale figures / processional or conversational scenes, etc.) (III)

reconstruction of the bull-leaping scenes from Tell el-Dab'a see Bietak et al. 2007: 56-61: figs 59A-60.
On the Hunt Frieze see Morgan 2010a,b, and Marinatos 2010 and 2012; Becker et al. 2014 (large scale animal fight); Bietak et al. 2014a (update on hunt scenes, landscapes, architectural simulations, etc.).
973 Bietak, M., Marinatos, N. and Palyvou, C. 2007a. The bull was worshipped widely in the EM, and not only in the Aegean. In Egypt, the Apis bull was worshipped from the early Dynastic onwards, particularly in Memphis (Hart 1986: 27).
974 The website of 'The wall paintings at Tell el-Dab'a' has recently gone online: http://www.wall-paintings-ted.de/ (last visited in May 2014).
975 Latin numbers in brackets indicate the special number that these scenes have received on the spreadsheet: 'sheet: Avaris frescoes'.
976 Examined thoroughly in Bietak et al. 2007. Fragments of stucco reliefs showing bulls were also briefly discussed by Von Rüden in Bietak et al. 2014a: 142-144.
977 Not much is published on the landscape of the Hunt Frieze yet, even though this landscape appears busy, 'very rich, full of rocks and plants' (personal communication with Morgan, 17 August 2013). See also the latest update on landscapes, provided by Becker, in Bietak et al. 2014a.
The spreadsheet provides a thematic overview of the iconography of Tell el-Dab'a. This should be considered as a brief mention of the scenes, and not as a full iconographic report of the frescoes accompanied by lists of iconographic parallels. Some pictures are also included on the CD.

### 5.3.2 Style and technique

Brysbaert examined 27 samples of wall painting fragments taken from areas H/I and H/IV. Her results, along with the conclusions of other scholars, are presented in (table 52), which thoroughly demonstrates the technological aspects of the Avaris wall-paintings. The Avaris frescoes were produced mainly in the *Buon Fresco* technique.

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978 Fragments with domestic / architectural details were unearthed at Tell e-Dab'a but only a very brief preliminary report has been published so far about these fragments (the contribution of Jungfleish in Bietak et al. 2014a). A few of these fragments, including architectural material (still unpublished), were seen by the present writer when she visited Tell el-Dab'a in Summer 2011. They look remarkably Aegean.

979 An iconographic analysis of the fresco fragments is beyond the scope of this thesis.

980 (pictures 117-133).

981 Brysbaert 2007: passim, and particularly pages 154-157. Studies on technique mainly concentrate on fragments of the bull-leaping scenes. For the conservation of all Aegean fresco fragments from Tell el-Dab'a see Bietak et al. 2014.

982 The main difference between Aegean and Egyptian painting is that Aegean frescoes are painted on wet lime plaster (i.e. in the *buon fresco* technique - *secco* does exist in the Aegean, but it is rare) whereas in Egypt frescoes are painted on limestone or dry gypsum plaster (see Jones 2005: 217-222).
The combination of Buon fresco and Secco is yet problematic for these paintings, as Brysbaert only acknowledges the Buon fresco technique. The plaster, which contained crushed Murex shells as in the case of Thera, was usually applied in two layers and, after dry, its surface was polished with a stone float. Before the application of the colours, figures and landscapes were sketched by incised outlines. Various handwork of masters and pupils can be distinguished. Stucco reliefs are also reported. Four rectangular basins, possibly used by the plasterers to mix the paste for the wall plaster, were found at the edge of the Nile, not far from the foot of the ramp leading up to the Palace [F].

As far as the workmanship of the Avaris frescoes is concerned, the mixed technique of Buon fresco and tempera painting, executed on a polished lime plaster surface, is purely Minoan. The planning of borders and patterns with string lines impressed on the still wet surface is also typical of Aegean art. So is the choice of colours used for the
depiction of some acrobats and the Avaris griffins. The crushed Murex added in the plaster mix, the smearing of plaster with paint brushes, the flattening of the plaster surface, the clay backing layer are all typically Aegean. No Egyptian grid was used for the life-size figures. The pigments are in accordance with Aegean pigments in both consistency and quality. The copper-tin alloy used for the Egyptian blue of Tell el-Dab'a must have been brought to Egypt from another site where such materials were already being used, i.e. the substance was transported to Egypt along with the Aegean painters. Bietak suggests that the quality of the plaster, and the themes themselves, point towards Minoan palatial centres, in particular to Knossos, as the origin of the murals at Avaris. Other scholars distinguish technological inter-influences in painting between various Aegean regions (Crete, Thera, Kea, Mycenae, Pylos, etc) and Tell el-Dab'a.

990 A red zone was used to fill the background, as in Aegean wall-painting. Moreover, in the Aegean, as in Egypt, the rule is red skin tones for males and white for females; while some Egyptian enemies appear in yellowish-white skin tones and numerous women are painted with yellow skin tones in the New Kingdom (Chapin 2010: 225). The only problematic feature in the colour conventions between the Aegean and Avaris is the use of yellow skin colour for some acrobats. Nevertheless, this has some parallels on Thera, e.g. depiction of boy in Xeste 3 and a yellow faced woman, also from Thera (Bietak, Marinatos & Palyvou 2007: 68). For a detailed discussion on the technique used in the Avaris frescoes see Bietak in Bietak and Marinatos 1995: 49; Bietak 2000a: 33-42. For a detailed comparison between the techniques of wall-painting in the case of Minoan-style murals at Knossos and Avaris see Bietak, Marinatos & Palyvou 2007.

991 Brysbaert 2007: 157
992 Aslanidou 2005: 468-470
993 See Chapin 2010: 225 for a brief discussion of the pigments.
994 Brysbaert 2007: 159. Copper-tin alloy was also used at Akrotiri and Knossos as early as MM II.
995 Bietak in Bietak and Marinatos 1995: 60. Bietak's concept is based on technique, theme, style, iconography, the flying gallop motifs, the depiction of flora and fauna, etc.
996 Technological, iconographic and artistic comparisons with the Aegean are not provided in this thesis. For a thorough analysis on iconography see Bietak et al. 2007 (taureador scenes); Morgan 2004, 2010a,b (griffin, felines and fauna in general); Marinatos and Morgan 2005 (dog pursuit and hunting scenes); Marinatos 2010b (lions); Aslanidou 2005 (life-size male figures), 2007 (ornamental patterns and emblems), 2012 (textiles); Bietak et al. 2014a (latest report on the frescoes, with further references). Particularly interesting are the similarities of the Hunt Frieze with parallels from the Greek Mainland: for a few examples, see Morgan 2010a.
Evidently, with regard to style, themes, motifs, patterns and emblems, the Tell el-Dab'a paintings are typically Aegean. However, in studies, the Avaris murals are compared to iconographic parallels not only from the Aegean but also from Egypt and elsewhere. Parallels are manifested both in painting and other artistic media (seals, pottery, etc.). Overall, researchers agree that the Avaris frescoes demonstrate thematic and stylistic similarities with frescoes at Palaikastro, Phaistos, Haghia Triadha, Thera, Kea, Melos, Rhodes, Mycenae, Pylos, etc.; and particularly with Knossian and Theran sources.

Yet, terminology matters. For example, Marinatos still calls the frescoes Minoan, arguing that they should not be called 'Aegean', whereas Morgan prefers to use the term 'Aegean'. The author of this thesis, having seen some of the frescoes herself, and noticing that many of their comparanda come from regions beyond Crete and Minoan spheres of interest, does see a special connection with Minoan Crete, but finds that the more generic term 'Aegean' would encourage further comparison with parallels not

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997 The Aegean wall paintings of Mari, Qatna, Alalakh and Kabri will be mentioned below: 'Aegean and Aegeanising frescoes outside the Aegean'. With regard to iconographic parallels from Egypt itself, a lot has been written so far. See, for instance, the comparison between the feline scenes of Keos, Thera, Avaris and Egyptian tomb iconography in the tombs of Ptahhotep at Saqqara and Senbi at Meir in Morgan 2004. Also, see the comparison among indigenous Aegean (e.g. Theran or Cretan) scenes of male-figures, the Avaris processional or conversational scenes and the processional scenes in eighteenth dynasty private tombs in Thebes, or the Beni Hassan processions in the tomb of Chnumhotep II (Aslanidou 2005 and Aslanidou 2012); or the Aegean-Egyptian iconographic comparanda of patterns and motifs in Aslanidou 2007.

998 For a comparison of the Tell el-Dab'a iconography with comparanda from the Aegean and elsewhere see e.g. Bietak et al. 2007 (taureador scenes); Morgan 2004 (feline hunters); Marinatos and Morgan 2005 (dog pursuit and hunting scenes); Aslanidou 2005 (life-size male figures) and Aslanidou 2007 (ornamental patterns and emblems).

999 'I myself strongly resist the idea that we call Minoan art "Aegean". The Tell elDab'a paintings are Minoan.' (Marinatos 2010b: 357, contra Morgan 2010a,b).
strictly called 'Minoan'. Therefore, both 'Aegean' and 'Minoan' are used in this work.

Though it is not possible to expand on a Minoan - Avarian iconographic and stylistic comparison, a few examples are provided here. The maze pattern, half-rosette zone, and scenes of bulls and taureadors are typical of the frescoes at Knossos. Similarities with Thera also appear in the hairstyles of some of the younger taureadors, in the wind patterns of griffins and the 'flying gallop' of the depicted animals. Furthermore, where natural scenery is shown, it seems that an Aegean or Cretan landscape has been in mind. Aegean - Avarian similarities are also seen in the choice and depiction of flora and fauna in the hunting scenes, the emblems and patterns, the physical appearance and garments of human figures, etc.

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1000 After all, in mid May 2014, Jungfleish published a very preliminary report about fragments with architectural simulations from Tell el-Dab'a, as part of Bietak et al. 2014, and also provided some parallels from the Aegean islands and the Greek Mainland.

1001 See also the descriptions on the spreadsheet (CD), with further references.

1002 [§ flying gallop]. See Bietak, Marinatos & Palyvou 2007: 66-68; also Morgan 2010a: 274, 2010b: 307-308, 312; Marinatos 2010a: 328-334. Flying gallop and the Aegean-style griffins generally appear in Egypt only with the onset of the New Kingdom. Nevertheless, they are evident in the Aegean much earlier. There are of course a few rare exceptions to the Egyptian rule, such as the flying gallop on the plate from the tomb of Qubbet el-Hawa at Aswan, which dates to the Old Kingdom (see Decker and Herb 1994, pl. CXLII, J 49). It is tempting to examine the development of the 'flying gallop' in the early eighteenth dynasty. Whereas it is absent from the hunt scenes in the tombs of Hray (TT 12) and Ineni (TT 81), it is prominent in the hunting scene with the gazelle which decorates the private tomb of User (TT 21 / very late Thutmose I and likely, early Hatshepsut). By the time of Thutmose III the 'flying gallop' appears fully developed in Egypt (see Davies 1913: 27; Morgan 2004: 295). An indigenously produced 'Aegeanising' flying gallop depicted on an item may be seen on a wooden lid, belonging to a cosmetic jar, discovered in Saqqara. The pyxis lid dates to c 1450 and it is carved in relief with animals set in four panels, divided by a rocky landscape frame: a winged griffin stalking a goat, a lioness rounding on a pair of deer or antelope. It is found in a tomb which dates to the reign of Akhenaten but it is considered an antique in its context (Hood 1978: 115-116, fig. 101).

1003 The Cretan landscape and theme suggest that bull-leaping might have been a prerogative of the Minoan palaces (see Bietak, Marinatos & Palyvou 2007: 85). Minoan paintings portraying landscapes with flora and fauna are associated with indigenous religious beliefs and social hierarchy. The Hunt Frieze from Tell el-Dab'a would make an excellent example of the latter (see Morgan 2010a: 289; Marinatos 2012). For a few examples of landscapes from Knossos see Chapin 2010: 226. For comparanda for the hunting scenes from Crete, the Aegean Islands and elsewhere, see Morgan 2010a,b).

intense that Bietak mentions that 'there is an absolute dearth of any hint of Egyptian symbolism and royal emblems' in the case of the Avaris frescoes from the palatial building [F] and from palace [G]. Moreover no Egyptian emblems or hieroglyphs blend with the representations of these frescoes. However, it is believed that Egyptian motifs and emblems had indeed furnished palace [G], but have not survived; after all, evidence for Egyptian paintings on mud plaster showing some Minoan influence (colour conversions and red background) has been found around the base of the ramp and the landing of Palace [G]. It is also worth pointing out that in certain cases the artists who painted the frescoes appear to have considered the Egyptian iconographic trends. For example, the selection of the flora and fauna depicted in the Avaris frescoes demonstrates that the artists chose to depict plants and animals which fit the Nilotic landscapes.

5.3.3 Stratigraphic position and date of the Avaris frescoes

A dispute clouds the discussion over the dates of the Avaris frescoes, since Bietak has been adjusting the dates of these wall-paintings from the nineties onwards. Bietak

1005 (map XII). Bietak, Marinatos & Palyvou 2007: 43
1006 Bietak 2007b: 86
1007 Bietak & Forstner-Müller 2003: 44-47, figs. 6-11; Bietak 2007a: 43
1008 Marinatos and Morgan 2005: 121; Marinatos 2010b; Morgan 2010a,b.
1009 Only an overview of the problem will be provided in this work, as the absolute date of the frescoes will not significantly change the results of this thesis with respect to the WS and GT analysis. Furthermore, the author argues that a speculative study of the iconographic detail is needed in order to express an opinion about the date of the frescoes; needless to say, such a study is beyond the scope of this thesis. What the reader should take into consideration is that A-E relations flourished in the Late Hyksos and early eighteenth dynasty. This relationship was materialised in various forms of art, among them the presence of Minoan frescoes at Avaris.
initially dated the Avaris frescoes to the late Hyksos Period. Later, he stated that the frescoes date to the beginning of the eighteenth dynasty and the years after the fall of Avaris. Nevertheless, in recent publications, he argues that the frescoes - and effectively the palaces associated with them - date to the reign of Thutmose I or Hatshepsut / Thutmose III, with a preference to the latter.\textsuperscript{1010} To Bietak and his colleagues, in Minoan terms, the frescoes would be synchronised to LM IB.\textsuperscript{1011}

The date of the various Minoan-style murals throughout the Mediterranean has never been an easy task. Since the paintings from Avaris have artistic, stylistic and other similarities with the paintings of Thera, researchers take into account the date of the Thera eruption and the recent radiocarbon and dendrochronology results.\textsuperscript{1012} Similarly,

\textsuperscript{1010} The preference of Bietak to the early joint reign of Hatshepsut and Thutmose III is based on the fact that there is no record that Thutmose I had been in Avaris, and Thutmose II only reigned for a few years (Bietak 2000a: 190). For the Late Hyksos dates suggested by Bietak, see Bietak 1996: 75, 76, 78; Bietak 1997: 117; Shaw 1995: 91. Bietak himself had, since the beginning, been uncertain about the frescoes’ dates: from the stratigraphical evidence in area H/III and other evidence, Bietak and Marinatos, in 1995, reached the conclusion that 'Minoan wall paintings existed in Avaris both during the late Hyksos period and the early 18th dynasty' (Bietak and Marinatos 1995: 49; Bietak 1995: 23). However, in his 1996-2000 publications, Bietak denied the presence of Minoan fresco painting at Avaris during the Hyksos Period and dated all fresco fragments to the early eighteenth dynasty (Bietak 1996; Bietak 2000a: 33-42). The re-dating of the frescoes initiated major difficulties, as, before 1996, scholars would discuss the Minoan paintings in Avaris and Syria-Palestine as a phenomenon of the late Hyksos Period, taking into account that the Hyksos were 'Canaanites' from Syria-Palestine (i.e researchers did not examine it as a phenomenon of the early eighteenth dynasty and the reign of Ahmose). Still, particularly during and after 2007, Bietak has once again shifted the date of the frescoes; this time from the early eighteenth dynasty to the Thutmoside Period and more specifically, the early reign of Thutmose III, although the hypothesis that they could date down to Amenhotep II has been left open - but a preference is shown for Hatshepsut / Thutmose III (Bietak 2007a: 27, 39; Morgan 2010a: 264). It is worth taking into consideration that even the Thutmoside date for the murals remains, for some researchers, problematic, as the majority of the fragments have come from secondary contexts. For the suggested mid-eighteenth dynasty date and evidence supporting a Thutmoside Period date for the Avaris frescoes see Bietak 2007a: 39. The dates for these frescoes, as suggested by Bietak and other researchers, are seen in (table 51, 63).

\textsuperscript{1011} See e.g. Morgan 2010a: 265 and Bietak (ed.) 2000b; Kitchen 2000; Warren 2007. For different opinions see chapter One 'Analysis'.

\textsuperscript{1012} (tables 4-6, 8-10, 13, 25, 17c,d, 19, 20, 27). Suggested dates for the Thera eruption nowadays range from c 1628 to c 1520 BC with a general agreement that Thera erupted during the LM IA period. Chronology synchronisation and the 'High' and 'Low' chronology issues will not be repeated in this
the different time frames suggested for the Mycenaean takeover of Crete must also be acknowledged.¹⁰¹³

Moreover, to better understand the processes that created the site of Tell el-Dab'a, and, consequently, to decide on when the frescoes came into being, and when (and for what reason) they fell off the walls, one should study the stratigraphy of the palaces there and especially the areas where the fresco fragments were uncovered.

According to stratigraphic interpretation, the thousands of fragments of Minoan frescoes in Avaris have been assigned to the two Palaces [F] and [G], of str. D,¹⁰¹⁴ which are typically Egyptian in architecture, though they do demonstrate some archaeological features that are inspired from the Near East.¹⁰¹⁵ As mentioned previously, these two palaces date to the Thutmoside Period, Ph. C3-2 (str. d-c),¹⁰¹⁶ they are set parallel to each other and they were conceived at the same time. Palace [F] however cuts into the Late Hyksos fortification wall [A].¹⁰¹⁷ It is known that Palace [G] was representative, ritual and residential in nature.¹⁰¹⁸ The majority of the fresco fragments, among them the bull leaping scenes, were allocated to Palace [F] and the dumps north-east of this

chapter. See chapter One: 'Chronological considerations' for a review of Aegean and Egyptian chronology.

¹⁰¹³ (table 10)
¹⁰¹⁴ (map XI) (tables 7, 8)
¹⁰¹⁵ Bietak 2007a: 26. E.g. a temple / sanctuary was built side by side with the throne room and the private apartments of Palace [G] (Bietak 2007a: 24-25), under a Near-Eastern architectural influence. It is estimated that only 5 to 10% of the original scenes has survived in fragments. For the iconography of these frescoes and for where exactly individual fresco scenes were found see the spreadsheet: 'Avaris frescoes'.
¹⁰¹⁶ (tables 7, 8)
¹⁰¹⁷ (map XII). Bietak 2000a: 21-26. See also this chapter: 'The site'.
building, in area H/I.\textsuperscript{1019} Fragments were found along the stump of the enclosure wall [A]; no fragments were discovered within the filling of the components of the platform, nor within its foundation ditches.\textsuperscript{1020}

The excavation of a scarab workshop, north of Palace [F], in the building compound [I],\textsuperscript{1021} produced scarabs inscribed with royal names ranging from the reign of Ahmose to that of Amenhotep II.\textsuperscript{1022} Nevertheless, pottery indicated that the building dates from Thutmose III to at least Amenhotep II.\textsuperscript{1023} This workshop is important for the dating of the Minoan frescoes since the walls of building compound [I] were connected to the eastern ramp attached to palace [F] and the earliest dumps with mural fragments were found on top of debris covering the earliest parts of this settlement.\textsuperscript{1024}

Fragments were also discovered in area H/III, north-east of palace [G]. The majority were found dumped at the area of the doorway with portico, where a painted patch of plaster was also found \textit{in situ}.\textsuperscript{1025} More fragments were found within the filling of a ditch or drainage channel, on the south-eastern wall of palace [G]. Lumps of unpainted lime plaster were also discovered in the area H/VI, along the outer north-western wall of palace [G]. Finally, a few fragments were uncovered in the area of magazines [K], west

\textsuperscript{1019} Bietak 2007a: 26
\textsuperscript{1020} Bietak 2007a: 27. For a detailed discussion of the stratigraphic position of the frescoes see Bietak 2007b: 26-40.
\textsuperscript{1021} (maps XI, XII)
\textsuperscript{1022} (table 50). Bietak and Hein et al. 1994: 50-52
\textsuperscript{1023} Bietak 2007a: 27, Cf Hein 1995: n. 57.
\textsuperscript{1024} See Bietak 2007a: 27, 38.
\textsuperscript{1025} Bietak 2007a: 38
of palace [F]. The magazines date from the reign of Thutmose III until Amenhotep II.\textsuperscript{1026}

In short, the Minoan-style wall paintings were allocated to palace [F], area H/I and some parts of palace [G], areas H/II, HIII, HVI.\textsuperscript{1027} The \textit{in situ} discovery of paintings around a door construction of palace [G], ph. C/3-2 (d-c) is of particular importance for the date of the frescoes. The Minoan fresco fragments found \textit{in situ} around a door construction of the Palace [G] are linked with phases C/3, stratum d, and early phase C/2, stratum c, where C/3, stratum d, is associated with the earliest part of the reign of Thutmose III.\textsuperscript{1028}

The Minoan fresco fragments from palace [F] and some areas in Palace [G] belong to the early C/3, stratum d, i.e. the Thutmoside Period.\textsuperscript{1029} This date, according to Bietak, is also supported by the discovery of four mud-brick basins found north-east of palace [F] and used for the mixing of the plaster paste of the wall-paintings in question.\textsuperscript{1030} These were found is the stratum of the later phase of the early eighteenth dynasty.\textsuperscript{1031}

As a conclusion, Bietak supports the Thutmoside Period, and, in particular, the early reign of Thutmose III as the date of the Minoan frescoes at Tell el-Dab'a.\textsuperscript{1032} According to the historical chronology of Kitchen (2000) which is favoured by Bietak, C/3,
stratum d corresponds to the early eighteenth dynasty and the early reign of Thutmose III, when the reign of Thutmose III is estimated by Kitchen to range from 1482/1479 to 1428/1424 BC. Phase C/2, stratum c, covers the late reign of Thutmose III and the reign of Amenhotep II.1033 To Bietak's mind, and according to his preferred chronological scheme,1034 the Minoan murals at Tell el-Dab'a are contemporary with the early representations of Aegeans in the processional scenes in the Tombs of the nobles in Thebes - particularly the displays in the tomb of Senenmut (TT71), Useramun (TT131) and possibly Intef (TT155) which all date to the co-regency of Hatshepsut / Thutmose III;1035 also, the typical Minoan patterns decorating the ceiling of the tomb of Senenmut (TT 71) in Thebes (pictures 155-162, 184-187) and the hesitant flying gallop shown in the hunting scene in the tomb of User (TT 21).1036

It is worth mentioning that, in Bietak's opinion, the frescoes did not survive long on the walls. They 'fell off the walls' towards the end of phase C/3, stratum d, or during phase C/2, stratum c (table 7).1037 Bietak argues that a hard plastering technique was not appropriate for thick walls of soft building material like mud brick on alluvial ground. To his mind, it is likely that the plasterers lacked experience with hard plaster or soft walls. As a result, the frescoes did not remain on the walls for more than a few years, due to the lack of the appropriate foundation. After they fell off the walls and during a

1033 (tables 4, 13)
1034 (tables 7, 8)
1035 (table 53). See the following chapter for the Aegean processional Scenes in Thebes.
1036 [§ flying gallop]. For the tomb of User see Porter and Moss 1960: 35-37. In the same hunting scene, the hunting dog is shown frontally, according to Aegean norms (Morgan 1995). For a picture of this hunting scene see Davies 1913: pl. XXII.
1037 Bietak 2007a: 28, 38.
refurbishment period (they were replaced with a new coat without paintings), they were carried out and dumped in various locations in the vicinity of the palaces, where they were discovered.\footnote{See Bietak 2005: 79-80; Bietak 2007a: 38.} Alternatively, the frescoes were created in order to last for a short period only.\footnote{See Bietak 2007b: 86. For a discussion of the function of the frescoes in the palace complex of Tell el-Dab'a, along with their short period on the walls, see below: 'Understanding the raison d'\ être of the Avaris frescoes'.}

In Bietak's mind, the paintings date to an early phase of the Late Bronze Age, i.e. LM I A-B / LH I-IIA, where early LM IB can be synchronised with the early reign of Thutmose III.\footnote{According to Bietak, the date of the frescoes would be in keeping with historical chronology even in the case where High Aegean chronology is supported. Bietak 2007a: 67-68, Manning's (1999: 182-220, cf. fig. 36) chronological scheme is born in mind by Bietak for this conclusion.} This concept of synchronisation between the early reign of (Hatshepsut-) Thutmose III, according to Bietak, would be in keeping with the historical chronology 'even at the border of acceptance of the high Aegean chronology'.\footnote{Cline 1998: Niemeier and Niemeier 2000: 764-765 contra Bietak 2000. However, Cline appears more positive about a Thutmoside date for the Tell el-Dab'a frescoes in his most recent publications (e.g. Cline et al. 2011).} Manning and others suggest that the Avaris frescoes are contemporary to LM IB at the earliest, and more likely, LM II – IIIA in style and date.\footnote{Shaw 2009; Younger 2009; Manning 2009; 2010 and their references.} It is notable that some researchers, such as Cline and the Niemeiers have previously disputed Bietak's re-dating of these frescoes from the late Hyksos Period to the early eighteenth dynasty.\footnote{Kutschera et al. 2012 (table 8).}

After the recent chronological updates and the detailed publication of the Tell el-Dab'a radiocarbon results,\footnote{Kutschera et al. 2012 (table 8).} the transition date to the New Kingdom, the start of the reign of
Thutmose III, as well as the date of the Avaris frescoes, are still open to argument. As the author has already shown in chapter One, each of the different suggested dates for the frescoes would reflect a different political and economic reality in A-E interactions.

5.3.4 The original appearance and location of the fresco compositions

According to Bietak, with regard to the exact position of the fragments on the walls of the palace complex, only suggestions can be made, based on similarly decorated palaces in Crete, Thera, Pylos, Alalakh, Kabri, Qatna and elsewhere. Researchers' opinions about the reconstruction and original location of individual scenes are provided on the spreadsheet. The original compositions of the Bull Frieze and Hunt Frieze are still debatable. It is estimated by Bietak that the scenes of bulls were originally placed on the walls in the area of the ramp, underneath the portico, and the sides of the entrances in the area H/I and Palace [F]. Numerous fragments from area H/I include bull-leaping and bull-wrestling, acrobats, hunting scenes with felines chasing wild animals, processional scenes and emblematic motifs such as griffins. Bietak argues that the

1045 See chapter One: 'An update in chronology'.
1046 See chapter One: 'Analysis'.
1047 For the frescoes in Mari, Alalakh, Kabri and Katna see the following pages ('Aegean and Aegeanising frescoes outside the Aegean' and 'The identity of the artists who painted the Avaris frescoes') and (table 51). Younger (2009) is particularly concerned about the reconstruction of the bull-leaping scenes of Tell el-Dab'a, discussing the various iconographic schemes (i.e. the 'Evans schema', the 'diving leaper schema' and the 'floating leaper schema') in comparison with the Tell el-Dab'a iconography and style. See also note 1050.
1048 For the suggested hypotheses over the position of individual scenes see the spreadsheet (CD): sheet 'Avaris frescoes'.
1049 Marinatos 2010b, 2012; Morgan 2010a,b; Bietak et al. 2014a.
1050 For the most recent suggested reconstructions of the Bull and Maze and Beige Scene see Bietak et
scenes with large male figures (processional or conversational), the taureador scenes, acrobats, hunt scenes, ornamental motifs, the griffins and the large female scenes, all belong to the same deposit. The griffin/s, possibly accompanied by lion or leopard scenes, may have decorated the throne room, as in the case of Knossos palace, Kabri and Alalakh. Accordingly, the function of the room could be more ceremonial rather than residential. Fragments from area H/III probably decorated the doorway with the portico near Palace [G]. These included floral and decorative pieces, in Minoan style. Moreover, figural representations, such as a female with double anklets and an over life-size white-plaster male figure against a red background, were probably originally painted next to the south-eastern entrance in palace [G], as in the similar case of the 'Prince of the Lilies' from Knossos.

The preliminarily published Hunt Frieze, fragments of which were also dumped outside palace [F], abounds with lively action and symbolism of masculine prowess, social hierarchy and royal power. A very Aegean-looking griffin with a crested head, a wattle (?) and spiralled wings was painted in 'flying gallop', possibly with prey (deer?)

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al. 2007: 56-61: figs 59A-60. For the griffins see Bietak 2007a: fig. 36; Morgan 2010b. For the feline scenes, and iconographic parallels from the Aegean see Morgan 2004; For the reconstruction of ornamental scenes see Aslanidou 2007 and for the reconstruction of the dog pursuit scenes see Marinatos and Morgan 2005. The hunt frieze is also partly published in Morgan 2010a, b and Marinatos 2010b; 2012. The latest report on the frescoes in Bietak et al. 2014a. For the life-size male figures see Aslanidou 2005; 2012; Von Rüden forthcoming 1.

1051 Bietak 1992: 26-28. See the spreadsheet for these scenes and their suggested position / reconstruction.

1052 Bietak 2007a: 41-42

1053 For a reconstruction of the plaster fragment with painting of feet of a female wearing double anklets see Bietak 2007a: fig. 39; also, ibid: 42-43. For a discussion, reconstruction and position of the male figures see Aslanidou 2005; 2012. For the ornamental scenes see Aslanidou 2007. See also appendix Four: III, V.

beneath its beak. At least six leopards must have adorned the Hunt Frieze, five moving to the left and one to the right, possibly hunting deer. The painters, as Morgan argues convincingly, had seen live leopards. About ten lions, some seen in 'flying gallop', hunt together with the leopards, and their prey was bull and/or deer.

5.4 Understanding the raison d'être of the Avaris frescoes

5.4.1 Aegean and Aegeanising frescoes outside the Aegean

Minoan, or better still, Minoan / Aegean-style frescoes appear not only in Avaris but also in other Bronze Age centres, such as Mari, Alalakh, Kabri and Qatna (maps Ib, II, X). The discovery of these frescoes outside the Aegean has initiated a lively discussion about the chronology of the EM Bronze Age as a whole. Moreover, it makes researchers interrogate the rationale of these extra-Aegean frescoes.

Minoanising decorative motifs at Mari confirm gift exchange between local palaces and the palaces of Crete, also verified by documents. Nevertheless, they are a local

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1056 Morgan 2010a: 273-279, 282. Leopards are not native to the Aegean but it is not unlikely that Aegeans had seen leopards in Egypt. See e.g. the Aegean processional scenes from the tomb of Rekhmire, in which Puntites bring a leopard (Porter and Moss 1960: 206-215).
1058 The constantly fluid EM and Near Eastern chronology hinder any conclusions on the absolute and relative dates of the frescoes. A comparative discussion of these frescoes can be followed in Bietak 2007.
1059 For the Mari texts mentioning Cretan gifts see (table 28). For the Minoan decorative motifs at Mari (clearly ornamental and symbolic) see Niemeier and Niemeier 1998. These frescoes are usually examined together with the murals from Ebla and Tell Sakka, the latter showing Egyptian influence. See Bietak 2007c: passim.
product and they offer little to the study of Aegean artisans abroad. Purely Minoan frescoes adorned a sanctuary in Miletus.\textsuperscript{1060} Qatna murals give the impression that they do follow the 'Aegean iconographic tradition', though, their style and technique do not follow that of Minoan art; some fragments however appear very close to original Aegean frescoes.\textsuperscript{1061} The palace of Yarim-Lim at Alalakh has also produced 'Minoan' paintings with pure Minoan iconography.\textsuperscript{1062} Additionally, Kabri frescoes - also from a palace context - are produced with the exclusively Minoan \textit{buon fresco} technique, and their style and iconography also appear Aegean, demonstrating parallels with Thera and other Aegean regions.\textsuperscript{1063} Hence, in Bietak's opinion, the Kabri and Alalakh murals can be considered Minoan / Aegean whereas Qatna frescoes are Minoisinising / Aegeanising or Minoan-/ Aegean -influenced.\textsuperscript{1064} However, the term 'Aegean-style' frescoes for the murals in Kabri is preferred in the recently published work of Cline et al.\textsuperscript{1065}

The frescoes of Qatna in Syria date to the Late Bronze Age; sometime from the

\textsuperscript{1060} Miletus, in Anatolia, was a Minoan colony and trade centre in the Middle Bronze Age. In the beginning of the Late Bronze Age (Miletus IV – corresponds to early Neo-palatial Crete) there was a second phase of Minoan colonisation of the citadel and the Minoan culture there was evident, to the point that Minoan frescoes, in both technique and context, adorned a local sanctuary. Because of fire and conquering Mycenaeans, the citadel declined as a Minoan trade centre towards the end of Miletus IV (corresponds to LM II). Because of their archaeological context, it appears that these frescoes were not diplomatic gifts; thus, they will not be examined thoroughly in this thesis. See Niemeier, W. D. 2009.

\textsuperscript{1061} The ornamental motifs of Qatna find parallels in both Crete and the Greek Mainland (see Bietak 2007c: 280 for a discussion). Motifs include spirals, palmettes, etc. See Novak and Pfaelzner 2002; Bietak 2007c: 282, figs. 12, 13 and particularly Niemeier and Niemeier 2002: 266-267.

\textsuperscript{1062} These include ornamental motifs, emblematic griffins, bucrania and inverted landscapes which recall the painting tradition of Knossos. See Bietak 2007c: 284, fig. 15, 16. These frescoes are considered Minoan by Woolley (1955). The Alalakh frescoes are called 'Minoan-style' by Cline et al. 2011.

\textsuperscript{1063} The frescoes depict landscapes, ashlar masonry, a swallow, etc. See Bietak 2007c: 285-287; figs. 18-22. Cline, Yasur-Landau and Goshen 2011 presents Aegean frescoes discovered at Kabri during the 2008-2011 and provides further references.

\textsuperscript{1064} Bietak 2007c: 294

\textsuperscript{1065} Cline et al. 2011
sixteenth to the fourteenth century BC, depending on the preferred chronological scheme. The date of the murals from Alalakh (stratum VII) is also very problematic due to discrepancies in the absolute chronology of the Old Babylonian Period (i.e. the middle or low), but it is estimated that they date to the reign of Yarim-Lim (c 1710-1650 BC) with a *terminus post quem* between 1628 BC (middle chronology) and 1564 BC (low chronology). The Kabri frescoes have been recently (2011) synchronised with the late seventeenth century BC and Cline and his colleagues consider them roughly contemporary with the murals in Alalakh. To Bietak's view, the frescoes of Alalakh and Kabri date from the Middle Bronze Age and the ones from Qatna in Syria, from the Late Bronze Age. Thus, wall-paintings at Alalakh, Kabri and Tell el-Dab'a altogether cover a time span of circa 200 years, depending on the chronological scheme followed.

Although a few non-Aegean characteristics can be distinguished in a number of these murals, stylistic and thematic similarities indicate that Aegean painters (or non-Aegean painters trained in the Aegean) worked on these sites. Clearly, the Avaris frescoes should be examined side by side with the murals in Crete and the

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1066 Niemeier and Niemeier 2002: 266-267
1067 Yasur-Landau and Cline 2009
1068 Cline et al. 2011: 256. According to Cline et al. (2011: 257) if the Kabri frescoes were painted in the seventeenth century BC and they were disposed in the early sixteenth century BC, these dates would fit the high Aegean chronology for the Thera eruption.
1069 Bietak (2007c: 280) gives 'from the 14th century BC' for Qatna. Bietak (2007b: 86) suggests that the Aegean-style murals in Alalakh and Kabri are at least 50-100 years earlier than the paintings of Avaris. See also Niemeier and Niemeier 2000. Cline, on the contrary (personal communication via EEF Forum and email, 10 February 2009) noticed that Kabri paintings are a bit later than Akrotiri, but earlier than Avaris, and both Akrotiri and Avaris are earlier than Qatna. It was initially assumed by Cline (personal communication via EEF and email, 10 February 2009) that Alalakh frescoes were earlier than Kabri. However, in Cline et al. 2011 it is clearly stated that the Kabri frescoes are earlier than Qatna and Tell el-Dab'a and almost contemporary with those in Alalakh.
1070 i.e. 'high' or 'low' chronology. See Bietak 2007c: 295.
1071 For the style of the Avaris frescoes see Bietak 1999a: 14 and the Annex. The Avaris frescoes are associated with iconographic parallels, not only in the Minoan palaces, but also on Thera, the island of Kea, the Greek Mainland, etc. For iconographic parallels of the Avaris frescoes, see Shaw 1995.
Aegean, and the Aegean-style murals in the Levant.\textsuperscript{1072}

It is worth taking into consideration that not only in Avaris, but also in Alalakh, Kabri and Qatna, the Aegean (-ising) frescoes were removed during the redecoration of the palaces, either because they fell off the wall due to bad craftsmanship or other circumstances (e.g. natural phenomena, damage because of warfare, fire, etc.); or even, because they were not desired any more.\textsuperscript{1073} On the basis of Gilbert's 'recurring artistic styles', the author argues that the latter scenario challenges the aesthetic value of these murals in non-Aegean environments over the course of time.\textsuperscript{1074} Judging from the suggested dates for these wall-paintings\textsuperscript{1075} it is possible that 'Aegeomania' in the palatial painting of the Levant demonstrated recurring trends, falling out of favour just to resurface again some decades later. Historical circumstances must have affected the recurring fashion cycles for this artistic style and iconography.

The following are some suggestions on the identity of the artists who painted Aegean-style frescoes unearthed in non Minoan / Aegean regions, including Avaris\textsuperscript{1076}: a) the frescoes were painted by travelling Aegean artisans who 'traded' their art from place to place, hired by the kings and local ruling class;\textsuperscript{1077} b) they were painted under the

\textsuperscript{1072} See (table 12). Attention, however, should be placed on the dates of these frescoes, since not all these frescoes are contemporary. Some relevant studies include Bietak 1996: 79; Bietak 1997: 117; Shaw 1995: 112; Betancourt 1997: 430.
\textsuperscript{1073} This is noticed by Cline et al. 2011: 255, 258
\textsuperscript{1074} Gilbert 2002: 17.
\textsuperscript{1075} (table 12)
\textsuperscript{1076} Excluding the Minoan frescoes from a sanctuary at Miletus which appear to be an isolated phenomenon. See Niemeier, W. D. 2009 for the cultic significance of these murals.
\textsuperscript{1077} [§ entrepreneurship, § trader (and other professional 'guilds'), § travelling craftsmen (and other professionals)]. As suggested by Niemeier W.D. 1991: passim; Niemeier B. and W-D. 2000B:
supervision of Aegean artisans with the assistance of indigenous painters trained and
guided by them;\textsuperscript{1078} c) they were produced by second or third generation Aegeans;\textsuperscript{1079} d) they were painted by non-Aegean painters trained by Aegean masters in the Minoan palaces or elsewhere, or, at least, influenced by Aegean painting and other forms of art;\textsuperscript{1080} e) they were made by Minoan artists sent by the Aegean, and particularly Cretan, monarchy to various rulers around the EM in order to produce their art as an elite diplomatic gift.\textsuperscript{1081}

It is difficult to decide which of these suggestions is correct. To the author's mind, it is possible that these murals were painted by travelling artisans who traded their skills, as suggested by the Niemeiers and others.\textsuperscript{1082} With regard to the ethnic origin of the artists, any suggestions depend on the date, the individual case-studies and on how Aegean / Minoan or Aegeanising / Minoanising these murals are, in both technique and iconography. Depending on these factors, it is theoretically possible that the murals were painted by Aegeans, foreigners trained in the Aegean or by Aegean masters abroad, or a combination of these scenarios. Nevertheless, whoever painted the frescoes outside the Aegean must have seen the original Aegean murals or at least their

\textsuperscript{1078} This view is not far off Maria Shaw's opinion (2009) on the 'artists of mixed nationalities' suggested for the case of the Avaris frescoes'.
\textsuperscript{1079} As stated by Shaw 1995: 106, 112 about the Avaris frescoes. See also note 1091.
\textsuperscript{1080} In other words, frescoes were made by non-Aegean painters in their homelands or other regions, who had received training by Aegean tutors or, they had seen the Aegean frescoes by themselves, or they were influenced by Aegean pottery, textiles or other art media; or even received inspiration through pattern books although they never visited the Aegean. The Aegeanising (or better, Aegean inspired and influenced) frescoes at Mari and Qatna might be products of such a phenomenon.
\textsuperscript{1082} Niemeier W.D. 1991; Niemeier B. and W-D. 2000B: 763-802; Bootolis 2000; Shaw, M. 2009, Cline et al. 2011, etc.
imitations; alternatively circulating pattern books with the 'know-how' of Aegean painting were in use.\textsuperscript{1083} To the author's mind, all these frescoes, along with the Tell el-Dab'a wall paintings, may describe a trend of 'Aegeomania' in the palatial painting in the EM and the Near East; an elite phenomenon stimulated by the appeal to the exotic.\textsuperscript{1084} In certain occasions, however, Aegean (-ising) frescoes outside the Aegean may reveal a special relationship between the ruling class / elite in the Aegean and the rulers in the Levant.\textsuperscript{1085}

5.4.2 Who painted the Avaris frescoes and why were these frescoes painted? A cornucopia of ideas

The answer to this question is crucial for the results of this thesis, as it highlights both the nature of A-E relations and the agents of this liaison. Indubitably, the Tell el-Dab'a frescoes were Aegean-influenced - if not made by Aegean artisans themselves. The clearly (according to Bietak) Minoan scenes and their iconographic parallels from the Knossos environment, the choice of colours and the technique of sketching the patterns with string lines as guides before applying the pigments on wet plaster, prove that the painters of these frescoes were either of Minoan origin, or, at least, they had learnt their

\textsuperscript{1083} For the circulation of pattern books in the EM see e.g. Clowley 1989; Bootolis 2000. For the use of pattern books in the painting of the Tell el-Dab'a frescoes see below: 'Who painted the Avaris frescoes and why were these frescoes painted? A cornucopia of ideas'. Interestingly, a similar procedure must have been followed by the Egyptian artists who painted the Aegean processional scenes in Thebes. See chapter Six: 'Artistic technique: the scenes through the eyes of the artist'.

\textsuperscript{1084} See the discussion of the economic principles in (table 27). The appeal to the exotic has deep roots in the history of the site. For example, Philip notices that even from the late Middle Kingdom onward, if not earlier, local metal and metalworking evidence, which demonstrates an exceptionally international character, played a primary role in the marking of the elite status of the local hegemonic class. See Philip 2006: 231-242.

\textsuperscript{1085} See below: Who painted the Avaris frescoes and why were these frescoes painted? A cornucopia of ideas'.
Art in the palace of Knossos. Artistic similarities with Theran painting also re-enforce a special relationship between Avaris and the island. Last, an Avarian relationship with the Mainland is also plausible judging from similarities of the Hunt Frieze with early Mycenaean art.

Bietak suggested that indigenous Minoan artisans, trained in the Knossian artistic tradition which was developed and cultivated in the local palace, travelled to Avaris and painted the frescoes through a political 'rencontre' at the highest level. On the other hand, Maria Shaw initially considered it unlikely that the frescoes were painted by Minoan artists, while later she proposed that Minoan, Theran, Egyptian and artisans of other nationalities painted these frescoes. The issue was also approached from the 'travelling artisans' point of view. There was of course a polyphony of ideas previously bruited: for Kopcke, for example, the frescoes from Tell el-Dab'a were not an Aegean but a Levantine phenomenon, possibly of Aegean inspiration. Finally, according to Knapp, the Tell el-Dab'a paintings formed part of an EM koiné and have nothing to do with Minoans. A discussion of the possible scenaria is necessary before

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1087 See appendix Four for some iconographic parallels. The author also recalls Aslanidou's view that the large male figures depicted on the Avaris paintings are nearer to the Theran tradition that the Knossian one (Aslanidou 2005: 468).
1088 See Morgan 2010a: 295. For instance, the Hunt Frieze of Tell el-Dab'a, which combines lions and leopards, has a parallel in the Shaft Graves at Mycenae. See Morgan 2010a: 285 for this parallel, and other parallels from the Mainland.
1089 Bietak 1996: 75-76; Bietak and Marinatos 1995: 60; Bietak 1999a: 14; Bietak et al. 2007A; Bietak 2007c. Bietak's theory will be expanded below.
1090 Shaw 1995; 1997; 2009
1091 Aslanidou 2005; 2007; Shaw 2009; etc.
1092 Kopcke in the discussion following Cline 1995b: 285
1093 Knapp 1998
the author expresses her personal view.\footnote{1094 For the author's view see this chapter: the final pages of 'Who painted the Avaris frescoes and why were these frescoes painted? A cornucopia of ideas'.'}

Even the most recent scholarship on the Avaris frescoes is still overshadowed by an atmosphere of conceptual inconsistency.\footnote{1095 e.g. Barnes, J.T. 2010: 3-7, who argues against freelance travelling artisans and a diplomatic marriage.} First, special value is given to the assessment of Bietak. Broadly speaking, Bietak argues that the frescoes are typically Minoan / Aegean - and in fact, he suggests that some (e.g. the taureador scenes) might be replicas of the palatial iconography of Knossos.\footnote{1096 Bietak 2007b: 86. Bietak uses the word 'replicas' in Bietak 2007b: 86 but it is understood by this author that in this case replicas do not signify exact copies of Knossos frescoes, but rather imitations of them. See \sindex{imitations of foreign items, § replicas of foreign items}. Bietak claims that the Avaris frescoes are Minoan (2007c: 288, 290) because of the following properties: a) technique is Minoan (lime plaster with murex shells, \textit{buon fresco}, plaster relief, etc.); b) colours and colour conversions are in agreement with the traditional Minoan painting (white for women, red for men, blue for grey); c) motifs (e.g. bull acrobatics, hunting scenes, landscapes, architectural ashlar façade, maze, ornaments, etc.) are typically Minoan; Style is Minoan (garments of figures, ornaments and patterns, etc.); d) composition (backgrounds, registers, palmettes, fillers, etc.) is Minoan and e) emblems (half rosettes, griffins, maze pattern, etc.) are Minoan, and probably Knossian. The researcher therefore places emphasis on the Cretan - Avarian relationship. It would be interesting to study the similarities between the Prince of the Lillies of Knossos and the so-named Prince of the Lillies in Avaris (Von Rüden, C. forthcoming 1).} He does not accept that the Avaris frescoes are produced by itinerant artisans.\footnote{1097 Bietak 2007c. See \sindex{travelling professionals}.} Rather, he sees the frescoes under a political / diplomatic perspective and he considers them an inter-palatial phenomenon; a diplomatic gift.\footnote{1098 Morgan and Marinatos also consider such a scenario plausible.}\footnote{1099 Morgan 2010a: 295; Marinatos 2010b: 351-352} According to Brysbaert, who works with Bietak, traditionally Aegean materials and techniques have been used for the painting of these murals. Therefore, there is strong evidence that these materials were brought there straight from the Aegean, together with
the painters, since some of these materials were not available in Egypt. As a result, Brysbaert sees Aegean painters in Avaris, which were, in her opinion, controlled by a royal, or at least, elite, administration.\textsuperscript{1100} Additionally, different working hands can be distinguished in the making of the frescoes; and therefore these are produced by both masters and pupils, some of whom where more experienced than others.\textsuperscript{1101}

Another question puzzling researchers is the following: if scholars do accept that the Avaris frescoes were painted by Aegeans, where in the Aegean did these painters come from? Did they come from Crete, the Aegean islands or elsewhere? Similarities are traced primarily to Crete and Thera and secondarily to other Aegean locations (Kea, Melos, etc.), including the Greek Mainland, which provides parallels for the Hunt Frieze.\textsuperscript{1102} It is known that there were regional schools of painting in the Aegean (e.g. the Knossian school, the Theran / Cycladic school, etc.) and that, these schools maintained an indigenous character, nevertheless, they belonged to the same artistic tradition.\textsuperscript{1103} Thus, the question is: to which school did the Avaris painters belong?

Younger still appears sceptical over the date, origin and reconstruction of the bull-leaping scenes in his 2009 review.\textsuperscript{1104} Morgan believes that the artisans who painted the

\begin{thebibliography}{99}
\bibitem{1100} Brysbaert 2007: 159
\bibitem{1101} Bietak and Marinatos 2007: 60; Marinatos 2010b: 343.
\bibitem{1102} For the similarities of the Tell el-Dab'a Hunt Frieze with parallels of the early Mycenaean art see Morgan 2010a,b and Marinatos 2010b; 2012.
\bibitem{1103} See Morgan 1990; Doumas 1992 (ed.); Immerwahr 1990; Boootolis 2000; Chopin 2010. It is worth mentioning that the Kabri frescoes, for example, appear close to the Theran iconographic parallels. See Cline et al. 2011: 250-253 for a discussion of the frescoes and their parallels.
\bibitem{1104} Younger 2009.
\end{thebibliography}
Avaris frescoes originated from Knossos. She has seen itinerant Aegean artists at Tell el-Dab'a but in recent publications she places emphasis on the frescoes as a result of an A-E political relationship. The scholar notices that in regard to the hunt scenes and some landscape displays (flora and fauna), the artists mixed both Aegean and (a few) Egyptian elements. Certainly, Aegean artisans who painted the frescoes had ensured that their iconography and theme was aesthetically appropriate in the eye of both Aegean and Egyptian beholder.

Aslanidou has reached similar conclusions with respect to the male figures and ornamental scenes. Besides, she sees Aegean artists at Tell el-Dab'a and suggests that all the scenes she has examined in her work so far, document a special relationship primarily with Crete (the Knossos school) and the Theran painting tradition, and secondarily with other Aegean regions. Additionally, she distinguishes thematic and graphic parallels between the Avaris frescoes and other murals elsewhere in Egypt and even in Syria. She mentions characteristically that the male figures of Tell el-Dab'a

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1105 Morgan 2005: 43
1106 Morgan 2004: 295 (travelling artisans); 2010a: 295 (frescoes made due to an A-E political relationship). See also [§ travelling professionals].
1107 Such is the case with the hunt scene depicting leopards and other felines. For this display, the Aegean artists took a theme familiar to both the Aegean and Egypt - the hunt - 'adding emphasis to both the international lion and the more elusive, 'local' leopard...'(Morgan 2004: 291; 2010a: 294). Lions were iconographically seen in both Greece and Egypt but not leopards. For an analysis of the Hunt Frieze and its parallels from the Aegean and elsewhere see Morgan 2010a,b and Marinatos 2010b. Similar is the case with the dog pursuit scene, which borrows a few Egyptian iconographic characteristics. There, as well, the artists have chosen to depict animals and plants which existed in both Greece and Egypt (Marinatos and Morgan 2005: 121; Marinatos 2010; 2012, with examples).
1109 See Aslanidou 2005, 2007 for a discussion of ornamental scenes and male figures respectively. This work discusses iconographic parallels from various Aegean locations - not only frescoes, but other artistic media as well, such as pottery, seals, etc. See also note 1087. For parallels with regard to textiles, see Aslanidou 2012.
1110 e.g. the theme and iconography of the Avarian processional and conversational scenes and the Aegean processional scenes in Egypt (the latter will be examined in the following chapter). See
were painted by Aegean painters who were trained in the Minoan schools of Crete, but at the same time they were itinerant artists, who moved over from place to place in order to sell their trade.\textsuperscript{1111} The constant wandering of these artisans in the EM had allowed them to receive artistic inspiration from various cultural backgrounds.\textsuperscript{1112} Evidently, through the study of the Avaris iconography, it is obvious that not only the male forms of Tell el-Dab'a, but even other iconographic themes, emblems and patterns, receive an international air, an inter-cultural arrangement, and occasionally, a hybrid appearance.\textsuperscript{1113} A plethora of iconographic, cultural and artistic inspiration is amalgamated in the Avaris frescoes – such that, if the beholder of this art was not only Aegean or Egyptian, but from a wider cultural circle – and therefore the frescoes should be meaningful to a large multicultural community. As Morgan states, a shared artistic tradition and the use of a common artistic language of themes and idioms was used.\textsuperscript{1114} A phenomenon which 'fits like a glove' to the previously developed approach of WS networking,\textsuperscript{1115} and the fact that, in GT terms, these artistic koinae would operate as strategies for the creation of 'common culture', 'binding' cultures together.\textsuperscript{1116}

Maria Shaw has also examined the frescoes. In her nineties publications she accepts that

\textsuperscript{Aslanidou 2012.}
\textsuperscript{1111 Aslanidou 2007: 196}
\textsuperscript{1112 See for example Aslanidou 2012 who discusses the male figures comparing their iconography with parallels in the Aegean, Egypt and Syria; Marinatos 2007a, who examines the iconography and symbolism of the taureador scenes with respect to Syrian iconography; Marinatos 2007b who sees the cultural symbolism of the rosettes and palm trees in the Aegean, Egypt and elsewhere.}
\textsuperscript{1113 Aslanidou (2012: 315) distinguishes hybrid elements in the over life-size male figures from Tell el-Dab'a. She compares this 'hybridism' with the 'hybridism' in the Aegean processional scenes in Thebes (see the following chapter).}
\textsuperscript{1114 Marinatos and Morgan 2005: 122.}
\textsuperscript{1115 See chapter Two: 'Characteristics and behaviour of the world system'.}
\textsuperscript{1116 See chapter Seven: 'Searching for equilibria in Aegean - Egyptian interactions'.}
there are similarities between the Avaris frescoes and those in the Aegean. However, she states that the artists were somehow distant from the original Aegean norm. Shaw believes that the artisans might be Aegeans in origin, but they lived outside the Aegean before going to Egypt (second or third generation Aegeans). Therefore, these craftsmen had absorbed external (non-Aegean) ideas and applied them to their work. She also suggests that these painters were probably supported by artists of other nationalities in the making of the Avaris frescoes. Ideally, a combination of Aegean and Egyptian working hands, the second trained by the first, may explain why Tell el-Dab'a iconography takes into consideration some Egyptian formulas (e.g. in the hunting scenes).

When Shaw re-examined the Tell el-Dab'a artists and patrons, she mentioned that the craftsmen who painted the Avaris frescoes were originally from more than one geographical region. She saw at least Minoan, Theran and Egyptian painters working in Avaris, if not other nationals (e.g. Levantine) and she referred to itinerant, 'ethnically diverse' artists' who painted in 'hybrid international styles'. Moreover, in the same study, she became more specific about the patrons who commissioned the painting, rejecting Bietak's opinion that the frescoes were created to please a Minoan princess in Avaris.

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1117 Shaw 1995: 106, 112; Shaw 1997: 498. If the painters were Minoans, according to Shaw 'they have been abroad long enough to have drifted away artistically from the canonic Minoan methods of representation. They would be second or third generation expatriates...'. Also, according to Shaw, 'Style too, the relatively stiff and awkward rendition of movement among leapers and tumblers, intensifies the impression that we are not dealing with Minoan painters[...]' (Shaw 1995: 112).

1118 e.g. the hunting scenes and the indigenous Egyptian flora and fauna. See Shaw 1997: 499.

1119 in her 2009 review of Bietak et al. 2007 'Taureador Scenes in Tell el-Dab'a (Avaris) and Knossos'.

1120 Shaw 2009: 473-474 contra Bietak 1996; 2007. For the Minoan princess see this chapter: 'The Aegean interactions with Avaris addressed historically', and chapter Seven: 'The theory of a dynastic marriage in association with the Minoan presence in Egypt'. For a similar opinion rejecting the
The issue of the identity of the Avaris painters raises more questions than answers. One should also consider the fact that even if the craftsmen who painted the Avaris frescoes were entirely Aegean / Minoan, they were aware of Egyptian iconographic trends: for example, a solid knowledge of the flora and fauna of the Delta is suggested from the examination of the fresco fragments.\textsuperscript{1121} In all probability, Egyptian iconography reached Crete and the Aegean through various portable artefacts such as the Aegyptiaca in the Aegean discussed in the previous chapter - even so, not all sources have survived to the present.\textsuperscript{1122}

The matter has been approached from various angles, under a broader view. The Niemeiers provided an interesting interpretation of the Minoan-style frescoes in Avaris, always in association with those in the palaces of Alalakh and Kabri. They suggested that Aegean artists were chosen to refurbish the palaces due to their artistic skills, providing as evidence an Ugaritic myth.\textsuperscript{1123} However, according to Bietak, the Niemeiers’ view on the interchange of artists is considered more appropriate to explain the phenomenon of Minoan-style murals in Alalakh and Kabri, rather than the case of the Avaris murals. Bietak, in fact has rejected this interpretation based on the concept

\textsuperscript{1121} See Marinatos and Morgan 2005: 121; Morgan 2010a; Marinatos 2010b.
\textsuperscript{1122} It would not be the first time that Egyptian iconography had crossed the sea and reached the Aegean. See for example the iconography of Taweret that travelled from Egypt to Crete to become the Minoan Genius; or even the ape and hunt iconography (Phillips 2008, vol. 1: 156-182; Morgan 1996).
\textsuperscript{1123} The myth narrates that the goddess Anat had sent her divine messenger, Qadesh-wa-Amnr, over the sea, via Byblos, to the god of handicrafts, Kothar wa-Khasis, who was brought from his throne in \textit{Kptr} (Kaptara / Crete) to build a palace for the god Baal and then to furnish it with precious works of art. See Niemeier 1991: 199; Niemeier B. and W-D. Niemeier 1998: 96; 2002. For Kaptara see also term 'Kftyw' in chapter Four: 'Terminology'.

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that the Egyptians were too self-centred to invite foreign artisans to refurbish their palaces and '<姐姐if an Aegean artist had been employed to make embellishments for an Egyptian palace-owner of royal status, we would have expected Egyptian emblems and symbolism to blend in the representations. Yet, neither hieroglyphs nor Egyptian emblems have been discovered...'. The thesis will now revisit the 'travelling artisans' approach. In the author's opinion, the theory of travelling craftsmen of Aegean origin appears quite attractive. There is no doubt that travelling artists existed in the EM. Independent or semi-independent merchants traded in the Aegean and abroad; and this should also apply to mural painters, even within the framework of the palatial system. Travelling craftsmen would either work for themselves, selling their art to elites abroad, or they were sent to foreign kings by Aegean monarchs to paint royal gifts. Additionally, the author argues that the reason why declamatory Egyptian emblems and hieroglyphic inscriptions are not seen blending within the typically Minoan / Aegean representations in the Avaris murals, is because the patrons sought something unique, authentic and clearly exotic in this artwork, and not an artistic chimaera combining Egyptian and Aegean features. The latter does not signify that 'hybridism' was not

1125 Bootolis 2000: passim
1126 see Cline 1995b, 278-281
1127 See above, the economic principles in (table 27). According to Bootolis (2000: 846) independent or semi-independent wall-painters operated in sites of non-palatial character (the Cyclades, or Minoan settlements away from the palaces); and in periods of upheaval or weakening of the central authority; for example, during the establishment of a Mycenaean dynasty on Crete.
1128 In other words, the author maintains that the highly artistic value of the frescoes derived from their
used at symbolic level, e.g. in the Hunting Frieze or the processional scenes.\footnote{1129} It simply means that the painters did not mix strictly Egyptian artistic elements (for instance, Egyptian royal insignia) with Aegean art. A similar view is suggested by Cline and his colleagues for the Kabri frescoes: their uniqueness is withdrawn from the absence of the ruler in the scenes;\footnote{1130} and this may also apply in the case of the Avaris frescoes, where royalty is implied by symbolism (Hunt Frieze) rather than directly portrayed.\footnote{1131} Even so, as mentioned earlier, of great importance to both patrons and artists of the Avaris frescoes, was that the murals 'made sense' multiculturally, i.e. to a wider number of beholders.\footnote{1132}

The view that the frescoes were painted by foreign painters trained by Aegean masters in the Minoan palaces is even more speculative. Is there any archaeological evidence from Crete and the Aegean to attest that foreigners (Asiatics, Egyptians, etc.) lived in the palaces and were trained in the local workshops, so that they could later re-produce the Aegean artistic norm in their home towns? Sporadic foreign finds from palatial contexts do not fully justify this theory, but, on the other hand, the possibility cannot be rejected altogether.\footnote{1133} However, the author declares that it is time researchers

\footnotesize{\textit{authenticity and their genuinely exotic character [§ exotica, § foreign-like objects]. Hybridism was indeed used, but in such a manner that all artistic elements were balanced and blended well together. A similar context is suggested by Panagiotopoulos (2011: 44) about artistic hybridism: hybridism expresses locality, not internationality. The author regards that such a view would fit well with the Avaris frescoes. Clearly Egyptian features would probably spoil the general picture and value of this artwork. There is also a remote chance that some of these Egyptian features have not survived. See Bietak 2007a: 43.}

\footnote{1129} Morgan 2010a: 280 for the leopards in Aegeanising landscapes; Aslanidou 2012: 315 for a comparison with the Aegean processions in the tomb of Mencheperreseneb.

\footnote{1130} Cline et al. 2011: 258.

\footnote{1131} Morgan 2010a: 292.

\footnote{1132} See the beginning of this discussion and Marinatos and Morgan 2005; Aslanidou 2007; Shaw 2009

\footnote{1133} For some of these finds see chapter Four. See also \{24\}, \{25\}, \{P274\}, and notes 672, 870, 1476,}
considered why Aegean-style frescoes are found in major EM towns, and not vice versa, i.e. traditionally Asiatic, Egyptian or Syro-Palestinian-style frescoes in the Aegean palaces. Could it be that Susan Sherratt is correct, and the EM world system is more Aegeocentric than ever imagined?\footnote{See Sherratt 1994: 237, and research question Five in the Conclusions.} Moreover, it is worth examining the possibility that all these artisans who painted the Aegean (-style) frescoes used motifs from a standard pattern book, a book that would travel and change hands, from tutor to student.\footnote{The concept is not new. For Aegean pattern books (copybooks) and travelling Aegean artists see Crowley 1989, Bootolis 2000 and \textbf{[8 travelling professionals]}. For a discussion on the use of pattern books in Egypt see Capart 1925: 272; Wachsmann 1987: 12-17; Rossi 2004: 92-95.} Even better, could these pattern books be a product of exchange themselves? Additionally, oral tradition must have certainly played a crucial role on the establishment and transition of iconographic trends.\footnote{Seamen, military men, traders and others encouraged networking between the Aegean, Egypt and elsewhere. Oral tradition may include epic poetry, myth and legend, narration, etc. See Cline 1995b.} Despite this, it is certain that Aegeans had visited the Egyptian courts.\footnote{See chapter Six, on the Aegean processional scenes in Thebes and chapter Seven.}

The theory that the paintings might have been replicas of imported Aegean textiles, suggested by Cline and Barber, has also been received sceptically by Bietak as it fails to explain why the artists painted the copies in a purely Aegean technique.\footnote{Cline 1998: 210; Cf Barber 1992: 311, 331-336 contra Bietak 2007b: 86. Barber suggested that the Aegean motifs found in early New Kingdom tombs were transferred via textiles. See, for example, the ceiling patterns with Minoan motifs in the tomb of Senenmut (Dorman 1991: pls. 27, 28). Bietak states that if the Avaris frescoes were influenced by Aegean textiles, then one should have expected 'more ornamental designs blended in with Egyptian motifs' (Bietak 2007b: 86) as in the case of Middle and New Kingdom tombs (see Barber 1991: 338-351) or the case of the ceiling pattern of the palace of Amenhotep III at Malqata (see Nishimoto 1991; 1992: 69-80).} It is true that the circulation of Aegean and Minoan textiles, along with the distribution of seals and...
pottery in the Mediterranean, could have equally promoted 'typically Aegean' motifs and emblems depicted on the Avaris frescoes and elsewhere in Egypt. Through the process of WS networking, eventually, these objects would make the distributed motifs familiar, fashionable and beloved to the wider public in Egypt and elsewhere.

Are the Avaris murals an elite phenomenon? The answer is yes! Whatever the ethnic identity of the artists, it appears to the author that the Aegean (-style) frescoes found in Avaris and elsewhere should be seen as a clearly elite phenomenon. In spite of the fact that in the Aegean, the art of painting was not always restricted to the palatial elite (e.g. on Thera), the archaeological context in which these fresco fragments are unearthed when outside the Aegean, suggests their elite character. Brysbaert states that elites were often tied to the palaces; therefore, nobles hired artists in order to paint large-scale paintings, the way they also hired craftsmen for their services. She also adds that an A-E inter-elite communication must have taken place before any Aegean or Aegeanising paintings were painted in Egypt. Hence, as mentioned before, in the EM, large scale painting became a synonym of noble status. The frescoes addressed a limited audience: a wealthy elite. They were made in order to satisfy the elevated aesthetic

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1139 (e.g. pictures 155-162).
1140 Again, the reason that Egyptian motifs and emblems are not blended in with the traditional Aegean iconography is cited previously: the patrons who ordered the frescoes did not wish to have artistic 'chimeras' decorating their palaces. For WS networking see above, chapter Two: 'Characteristics and behaviour of the world system'.
1141 Chappin (2010: 228) discusses the non-elite character of some of the Theran frescoes, mentioning that non-elite buildings from Thera have also produced frescoes.
1142 Brysbaert 2008: 162, 166. The A-E inter-elite communication applies to the Avaris frescoes and other Aegean / Aegeanising work in sites of elite character in Egypt (e.g. private tombs of Senenmut, Intef, later the Malqata complex, etc.). Elite households participated actively in the Minoan economy (Schoep 2010).
1143 See e.g. the 'Hunt Frieze' from Avaris, and its royal symbolism (Morgan 2010a: 292).
needs of the privileged classes.\textsuperscript{1144} Anything exotic (paintings, items, commodities, etc.) differentiated the elite from the masses.\textsuperscript{1145}

After all, the Avaris frescoes in particular, demonstrate a certain elite / palatial identity, occasionally accompanied by ceremonial aspects.\textsuperscript{1146} The demonstration of the maze pattern, bull-leaping scenes and half-rosettes, griffins, the ceremonial processional or conversational scenes, etc. all suggest a special relationship between the Avaris palaces and the palace at Knossos or, at least, the elites on Crete and elsewhere in the Aegean.\textsuperscript{1147}

It therefore appears that Minoan (-style) frescoes in the EM are an elite 'product' changing hands, just like the artists who painted them. The paintings (and, by extension, art itself, together with its reflecting symbolism and ideology) were a means of 'trade', gift exchange and diplomatic policy between monarchs in the EM.\textsuperscript{1148} In Egypt, 'exotic' painting, along with the circulation of other precious and rare items and gifts (ostrich eggs, incense, seals, jewellery, textiles, etc.) served the prestige of a continuously emerging elite class in the matrix of the ambitious and expanding New Kingdom empire.\textsuperscript{1149} Evidently, contact with the 'exotic' became a source of legitimate power for elites.\textsuperscript{1150}

\textsuperscript{1144} Panagiotopoulos 2012: 65-66.
\textsuperscript{1145} See the economic principles in (table\ 27).
\textsuperscript{1146} Morgan 2005; Bietak 2007a; Bietak 2007b; Brysbaert 2007
\textsuperscript{1147} Bietak 2007b: 85-86. The Hunt Frieze also operates as a symbol of royal power (Morgan 2010a,b; Marinatos 2010b).
\textsuperscript{1148} Marinatos 2010b: 351.
\textsuperscript{1149} (table\ 33).
\textsuperscript{1150} The study of M.W. Helms on long-distance relationships, trade, and craftsmanship has indeed been
Based on the published literature about the frescoes, the author observes that the painting from Tell el-Dab'a ranges from pieces which are possible replicas of Minoan material,\textsuperscript{1151} to fragments with a few, often distant connections to certain Aegean painting schools.\textsuperscript{1152} Also, with regards to style, she finds that the previously mentioned frescoes at Tell el-Dab'a, and those at Alalakh, Kabri, and Katna, all portray similarities with frescoes within the Aegean, and in various degrees, the main characteristics of Minoan / Aegean wall-painting as described by Turner:

- fluid, rhythmic, non-hierarchical style,
- lively colours,
- idealised themes,
- frequent naturalistic scenes,
- frescoes painted from both observation and imagination,
- with attention to detail;
- and a preference for individual subjects rather than crowded scenes.\textsuperscript{1153}

Because of these similarities, the author sees these paintings as interrelated pieces of proven very useful in support of this theory. According to Helms, the acknowledgement and understanding of distant regions and cultures, as well as the purchase of foreign prestige goods, are used by elites for their political advantage. See Helms 1988: 3-4, 131-71; Bietak 1999a: 14. \textsuperscript{1151} Bietak (2007b: 86) stresses that some of the Avarian taureador scenes replicate Knossian painting. \textsuperscript{1152} In this case, the frescoes could be called 'Aegeanising' because of their similarities with Aegean parallels, or because the Avarian frescoes were simply influenced by Aegean art. For instance, the fragments depicting textiles worn by male figures in the Tell el-Dab'a frescoes (e.g. fragment F570 and F629) are distant to Knossian painting but manifest some similarities with Theran painting (according to Aslanidou 2010: 311). \textsuperscript{1153} Turner 2003: vol. 20: 673-675. See this chapter: 'Who painted the Avaris frescoes and why were these frescoes painted? A cornucopia of ideas'.

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EM art and highlights the importance of understanding 'the bigger picture' when these frescoes are examined. In her view, the starting point for the circulation of Minoan / Aegean style was of course Crete and its local painting tradition, although the Aegean art and technique was influenced by other civilisations during the process of transition; thus, it kneaded together the various social and ritual elements of different societies. To conclude, notwithstanding their basic similarities (above), Aegean and Aegeanising EM murals eventually received a regional character, because their style was not only evolving over time, but also transitional.

The author is not the only one who sees the 'bigger picture' in the making of these frescoes. After all, it is now accepted by most researchers that wall painting, as an elite phenomenon, has a common symbolism, theme and style, no matter where in the EM. This concept is, what is called by Sherratt, 'an elite koiné'- artistic, iconographic, ideological, technological - which materialises as an intense maritime interaction between coastal areas of the EM. The same concept is introduced as 'the Versailles effect' by Wiener. In Feldman's opinion, this cultural koiné takes the form of 'visual koiné'.

1154 Naturally, because of the key location of the island on the map, Crete (and especially the Cretan elite) operated as a funnel of various artistic and social ideas in the Eastern Mediterranean.

1155 An explanation of transitional style: when, in the process of transition from region to region, one style gives way to another, there is usually an intermediate period when some characteristics of both are present in the same work (Turner 2003: vol. 20: 859). The 'regional schools of painting' in the Aegean and beyond (see the previous pages) can be explained by this artistic phenomenon.

1156 [§ koiné]. See Sherratt 1994: 237-239. It is wise, of course, to consider the frescoes internationally, via a 'koiné', as done by researchers such as Marinatos (2007a, 2007b), Bietak (2007c) and Feldman (2006) contra Panagiotopoulos 2011: 36, 44.

1157 Wiener 1984. The term implies an 'Aegean iconographic fashion' in the EM, similar to the architectural and artistic fashion spread to the rest of Europe by France in the seventeenth century. An explanation: European architects and artists received inspiration and influence from the baroque in style Palace of Versailles which is one of the most imitated buildings in the seventeenth century. As such, baroque, as a symbol of grandeur and sensuality, became associated with the competing ruling classes and inspired the architectural and painted decoration of several European palaces and noble
hybridity, iconography of generalized kingship, high-value materiality, and wide geographic distribution associated by archaeological findspots within elite spheres.1158

Moreover, considering that the art of Aegean-style wall painting is 'merchandised' and exchanged, diplomatically and inter-palatially or not, then this painting is indeed affected by concurrent artistic fashions, technologies and styles. It is also affected by what the patrons desire to see.1159 Evidently, it becomes flow-produced.1160 This does not imply that the Aegean-style murals in the EM were simply decorative; nor lessens their 'value', symbolism and elite character. On the contrary, every single one of them reflects a ritual and a social aspect.1161

It is worth mentioning that a few portable objects and Aegean wall paintings distributed in Egypt, Syro-Palestine and the Near-East, do not always imply a relationship in architecture, language, religious beliefs and burial customs. However, in ancient and modern society, objects and humans circulate widely, bound with history and culture, individuality and uniqueness. Along with them, naturally and freely, artistic styles, objects, oral traditions and lingual behaviours, beliefs and ideas - in other words, cultural and social phenomena - move from WS cores to peripheries via networking. These social phenomena are under continuous development and constantly depend on

households, e.g. the Würzburg Residence in Germany and the Royal Palace at Stockholm in Sweden (Konner 2008: 259; Osborne 1970: 108-111). Similarly, in the Bronze Age Eastern Mediterranean, Warren's concept of 'the Versailles effect' explains the circulation of Aegean painting as a symbol of power.

1158 Feldman 2006: 159-160
1160 Judging from the discovery of Aegean and Aegean-style fresco fragments in various EM regions. See above, this chapter: 'Aegean and Aegeanising frescoes outside the Aegean'.
1161 See Marinatos 2007a; 2007b (emblems, bull-leaping); Morgan 2004 (symbolism of hunt in Aegean and Egyptian scenes); etc.
historical conditions and social needs.\textsuperscript{1162}

In a similar manner, with regard to the frescoes in question, the author accepts that there must be a connection between the ruling and ritual habits and beliefs of the Minoans, Aegeans and Egyptians;\textsuperscript{1163} a connection that induced the Avaris monarch to request the decoration of his palaces with Aegean frescoes. This inter-elite social link is the foundation of sacred tradition and power of kingship, both homogeneously cultural in the Aegean, Syro-Palestine, Egypt, Nubia and the Near East, even if differences are attested from place to place.\textsuperscript{1164} In other words, the stimulus for the painting of these frescoes in regions outside the Aegean is a koinê of like-minded people. As proof of this concept comes the half-rosette triglyphic frieze, scenes of bull-leaping, acrobats, sacred palm trees, griffins and lions as symbols of royalty and power, hunt scenes, processional displays, etc. These motifs / graphs / emblems appear frequently in EM art.\textsuperscript{1165}

However, in addition to the meticulous study of finds, archaeologists should not underestimate the role of human factor. One needs to consider whether the presence of Aegean frescoes in Avaris signifies that a Minoan / Aegean minority was settled there, as suggested by Duhoux.\textsuperscript{1166}

\textsuperscript{1162} See above, chapter Two: ‘Characteristic and behaviour of the World System’.
\textsuperscript{1163} An elite EM connection, to some extent, since it covers the iconographic symbolism in Egypt, the Aegean and the Levant.
\textsuperscript{1164} See e.g. Marinatos N. 1993; 2007a
\textsuperscript{1165} The symbols / emblems / motifs discussed in this paragraph are portrayed in frescoes and other artistic media (seals, pottery, amulets, etc). See e.g. the work of Marinatos 1993; 1998; 2007a; 2007b; 2009, 2010b, 2012; Aslanidou 2007, Morgan 2010a,b and Marinatos and Morgan 2005, Becker 2014 (animal fight as symbolism) and Bietak et al. 2014a. For the symbolism of the Avaris see the spreadsheet on the CD.
\textsuperscript{1166} Duhoux (2003; 2008) suggested that there was a Minoan settlement in the Delta. For a discussion
People are indeed the carriers of culture. Whereas exported items and iconography have no voice to 'speak' on their own, movement of population plays the primary role in WS and GT networking.\textsuperscript{1167} The theory of a dynastic marriage between a Minoan queen and the leader of Avaris has become quite popular among scholars. The possible relations of Queen Ahhotep with the Aegean have been discussed previously.\textsuperscript{1168} A dynastic marriage could explain the presence of Minoan paintings and royal emblems (e.g. the sphinx) on the walls of the palace compound. The hypothesis was first suggested by Marinatos and Reusch but is still uncertain.\textsuperscript{1169} Recently, this idea, which implies direct contact between the Avarian and Knossian palace, has been adopted by Bietak, tailored to the Thutmoside date of the frescoes.\textsuperscript{1170} Such a theory has been rejected by Wiener, Shaw and Barnes.\textsuperscript{1171} A differentiation of this theory has been expressed by Marinatos, who

\textsuperscript{1167} See chapter Two: 'Characteristics and behaviour of the world system', 'Game Theory and Aegean - Egyptian interactions: similarities to the World System/s approach', and chapter Seven on movement of populations.

\textsuperscript{1168} Notice that the concept was initially based (according to the date of the frescoes in the early eighteenth dynasty, as firstly suggested by Bietak) on the title of the mother of Ahmose, Queen Ahhotep II: 'Mistress of the shores of Hau-nebut', which is linked to the Aegean (?) Islands (Cyclades) (problematic). See note 870, chapter Four: 'Terminology' and chapter Four: Aegean and Aegeanising items unearthed in Egypt: 'Avaris'. See also Ahmose's axe [M1001], the silver boat model [M1009], pectoral EMC JE 4683 (Aldred 1978: pl. 39; Andrews 1990: fig. 15) and the dagger of Ahhotep (EMC JE 4668); all from Dra Abu Al Naga, Tomb of Queen Ahhotep (Kantor 1947: 63-66, 71-72; Lacovara 2008).

\textsuperscript{1169} For a discussion see Lacau 1909: 3f; Jánosi 1991-1992: 99-101; Hankey 1993; Shaw 1995: 110; Bietak, 1996: 80, contra e.g. Hussein (2007: 37) who links the Tell-el-Dab'a griffin scene with Minoan priesthood. For a possible dynastic marriage between an Aegean princess and an Egyptian monarch see chapter Seven: The theory of a dynastic marriage in association with the Minoan presence in Egypt'.

\textsuperscript{1170} Bietak 2005: 81; Bietak 2007b: 86; Marinatos 2010a: 295. Bietak argues that the frescoes were painted in order to please (or in honour of) a Minoan bride (of Thutmose III?). Cline (1995b) does not reject the theory of a dynastic marriage, neither does Marinatos (2010b).

\textsuperscript{1171} Shaw 2009: 474; Wiener 1995' Barnes 2013: 5. Shaw states that bull-leaping iconography would not be appropriate for a queen, not even the Egyptian ruler himself. Warren argues that if a Minoan queen was in the palace, one would expect to find a larger number of Minoan paraphernalia in Avaris, since these items should, in theory, accompany her in Egypt. Nevertheless, these Minoan items may
believes that the frescoes are explained by the presence of a Minoan army or navy official in the Avaris palaces; a scenario that might be possible if Prw-nfr is placed in Avaris.\textsuperscript{1172} Morgan, on the other hand, sees Aegean emissaries and dignitaries in palace [F], and suggests that official international and ceremonial business took place in the room(s) decorated with Aegean frescoes.\textsuperscript{1173} MacGillivray has even suggested that the Keftiu may have used palace [F] as a post in Egypt's royal shipyards at Prw-nfr.\textsuperscript{1174} Such an opinion is worthy of consideration, but the present author wonders how appropriate the Avaris frescoes scenes would be to adorn the residence / workspace of such individuals. In that case, navy themed frescoes should be expected.\textsuperscript{1175}

In similar parameters belongs the concept that the frescoes decorated the palace for a special, but very brief purpose, i.e. an official visit or a high meeting under a political or diplomatic stimulus.\textsuperscript{1176} To start with, this approach cannot be immediately rejected. In fact, views about Aegean officials in Avaris are appealing to the author.\textsuperscript{1177} Could it be that Aegean / Minoan officials had visited the Avaris palaces sometime in the

\begin{flushleft}
\textsuperscript{1172} Marinatos, N. 2011; see also Bietak 2000a: 40. Marinatos, who accepts the Thutmoseide date of the frescoes, is associated with the survey and geophysical research conducted at Tell el-Dab'a (see note 1228), and the theory that the port of Prw-nfr was in Avaris. Marinatos (Marinatos 2010a: 295) however still considers the hypothesis of a diplomatic marriage 'plausible'. For Prw-nfr see chapter Five: 'The Aegean interactions with Avaris addressed historically' and Seven: 'Possible A-E alliances and diplomatic treaties'.

\textsuperscript{1173} Morgan 2010a: 295

\textsuperscript{1174} MacGillivray 2009: 165. See also chapter Seven, and note 1476.

\textsuperscript{1175} Unless of course the 'hunt scenes' operate as allegories and symbols of a naval power, which is hypothetically possible.

\textsuperscript{1176} Bietak 2007b: 86.

\textsuperscript{1177} Marinatos, N. 2011; Morgan 2010a: 295.
\end{flushleft}
Thutmose Period (or earlier); and if so, for what reason? Could it be that a meeting of EM leaders took place in these palaces, with both Aegeans and Egyptians playing a principal role in it? The brief life of such an event would explain why the frescoes were allowed to fall off the walls so soon. They were either not meant to stay on the walls for long, or they were removed after the event, or after the 'break down' of an agreement or treaty. On the other hand, a series of visits appears more likely: a single planned meeting or visit would not explain why the artistic detail in these frescoes was so elaborate and of such fine craftsmanship; and why they look as if a significant amount of time had been spent on their production. After all, a meeting or diplomatic visit of high importance would require the local leader and painters to have planned the project way in advance, so that work finished in time and progressed according to schedule. Additionally, this concept would not explain why Minoan-style frescoes are also found in Kabri and Alalakh, unless the diplomatic, cultural, athletic or political event lasted some time and was regularly repeated, each time in a different 'capital' of the known world. The special event 'scenario' may be strengthened by a) the ceremonial voyage of Aegean boats in the flotilla fresco of Thera, and b) the Aegean processional scenes in Thebes.

1178 Depending on the date of the frescoes.
1179 See above: 'Stratigraphic position and date of the Avaris frescoes'.
1180 It is worth mentioning that the depiction of bull-leaping and bull-grappling acrobatics in Avaris does not necessarily suggest that these bull-games were taking place there, even though Bietak (2007a, 2007b) states that this is likely to have happened in the vicinity of palaces [F] and [G] and in the open. Nonetheless, bull-leaping must have been a prerogative of the Minoan palaces. More archaeological evidence is necessary to verify this idea.
1181 (pictures 111, 112). The boats depicted in the flotilla fresco are decked out with ornaments and religious symbols, in a festive atmosphere. The flotilla fresco has been linked to an EM 'voyage' (Morgan 1988: passim; Wachsmann 1998: 105-106; Shaw, M. 2000: passim; contra Morgan 1988; Strasser 2010: passim / with references). See [KM AM E 3295].
1182 See chapter Six.
One possibility remains to be discussed: were the frescoes a royal greeting gift from the Minoan ruler to the Avarian palaces? In other words, were Avarian - Aegean relations directly inter-palatial, as suggested by Bietak (i.e. Avaris palace ↔ Knossos palace); or this is not the case? To the author's mind, the theory that the murals were painted by travelling artisans lessens the scenario of direct inter-palatial relations but it does not eliminate it altogether. Additionally, the travelling artisans theory signifies that Avarian - Aegean relations were indirect, without of course, crossing out the direct 'scenario'. While both theories are based on a chain of evidence, the travelling artisans theory engages a larger geographical area than the one of direct inter-palatial interaction. However, the involvement of non-palatial elite in both schemes is potentially the same since craftsmen (i.e. commoners, and not solely from Crete) worked in the services of the palaces. To conclude, in the author's opinion, both scenaria appear equally possible for the painting of the Avaris frescoes.

Last, the author wonders if the Avaris frescoes reflect a special A-E treaty (political, economic, or other), the records of which have not survived. If the new Thutmoside date for the frescoes is accepted, then the Tell el-Dab'a frescoes and the depiction of Aegeans bringing their wares to the Egyptian court in the Theban tombs of nobles in

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1183 Bietak 2007a; 2007; 2007c; concept also supported by Marinatos 2010b: 251; 2012: 114-115.
1184 For travelling artisans in association with the Avaris frescoes see Shaw 2009: passim.
1185 That is why the Avaris frescoes have comparanda not only on Crete and the Aegean islands but also the Greek Mainland. See e.g. Morgan 2010a for examples.
1186 For travelling artisans in the Aegean see Bootolis 2000: passim.
1187 For a possible A-H treaty / A-E treaty, see chapter Seven: 'Possible Aegean - Hyksos / Aegean - Egyptian state-to-state negotiations'
Thebes,¹¹⁸⁸ may be seen as pieces of the same puzzle.¹¹⁸⁹

The interpretation of the phenomenon of Aegean / Minoan (-style) frescoes in areas outside Crete and the Aegean has been discussed thoroughly in previous pages. Several conclusions can indeed be drawn from the study of the Avaris frescoes. Before the author proceeds to the next discussion, she will summarise some scholars' thoughts on the raison d'être of the frescoes at Tell el-Dab'a, since she also agrees with the following statements. The murals are visualised as elite emblems and banners, as royal / elite paraphernalia; and as such, they serve a number of purposes: a) They are decorative. They are painted on the walls of the palace as a means of showing affluence and high status.¹¹⁹⁰ b) They reflect landscapes, rituals, ceremonial and other practices, and likely, historical realities.¹¹⁹¹ They reflect social ideas aspired to, and respected by, various Eastern-Mediterranean societies.¹¹⁹²

¹¹⁸⁸ (tables 53, 54)
¹¹⁸⁹ For the Aegean processional scenes see chapter Six.
¹¹⁹⁰ See Bietak 2007a; 2007b; 2007c. Similar to the Aegean frescoes, they serve the prevailing ideology of the elite, while at the same time, they function as signposts, i.e. they are painted on important spaces inside / outside palaces and mansions (Chapin 2010: 225). See also Bootolos 2000: passim.
¹¹⁹¹ See e.g. Marinatos 2007a; Marinatos 2007b; Marinatos and Morgan 2005; Aslanidou 2005; 2007. The 'historical' aspect of the scenes depends on whether or not bull-games took place in Avaris; whether the 'processional' scenes depict Aegeans who had indeed visited the Avaris palace complex, etc.
¹¹⁹² See e.g. Marinatos 2007a; 2007b; 2010b; Morgan 2010a,b. See also, the previous pages in this chapter, on 'koiné'.

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5.5  How the Avaris frescoes were created: a suggested project strategy

Nowadays it would be difficult and unsafe to envisage the original setting of the paintings in the palace complex of 'Ezbet Helmi. An attempt to determine the surface area of the painted walls and the time required for the painting of the murals based on the number of fragments uncovered, would only be speculative. Firstly, as Militello has noticed, researchers should consider whether the project was limited to figurative paintings only, or it also included white painted surfaces with simple bands and stripes; and the size / percentage of the surface area that figurative, or non-figurative paintings, covered on the walls. Secondly, judging strictly from the examination of the fragments, it is not certain how simple or complicated all these displays were. Complex scenes would require much more labour and time. Moreover, according to Maria Shaw, usually, in Bronze Age buildings, wall surfaces available for fresco painting by far exceeded the size of the area that can be covered by the preserved fresco fragments, and therefore, there is not much researchers can conclude along such lines of reasoning; unless it is known exactly which walls were painted. Questions become even more difficult to answer in the case of the Avaris frescoes, because most of the fragments were not found in situ. Nevertheless, a few logical assumptions on the time

1193  As mentioned previously, the majority of the fragments were found dumped north-east of the palaces [F] and [G]. See this chapter: 'stratigraphic position and date of the Avaris frescoes'.
1194  e.g. such an attempt has been made by Marinatos (2010b: 345) about the Hunt Frieze, which is said to cover 5-6 square meters and two or more walls.
1195  The author wishes to thank Pietro Militello (Università degli studi di Catania) who pointed out these difficulties to her (via AegeaNet archaeological forum: 20/03/09).
1196  The author wishes to thank Maria Shaw who pointed out this problem to her (via AegeaNet archaeological forum: 20/03/09). See also his chapter: Stratigraphy and date of the Avaris frescoes". 268
consumed for the painting of the frescoes and the crew involved in the project, may assist this investigation.

One point can be raised with certainty. The frescoes were not painted overnight. It is not known how much time and crew were required for the completion of the project. Researchers do accept, however, that the Avaris murals were painted by several artisans, as different hands and levels of artistic skill can be detected. However, time is a major issue here. If the frescoes came into being to serve the needs of a particular event, as suggested by Bietak, then plastering and painting should have been initiated way in advance, or else the artists may have not reached their deadline. Limited available time could of course easily explain why the artists did not pay meticulous attention to the quality of plastering, and as a result, the paintings fell off the walls soon after the project was completed.

If one accepts Bietak's view that the frescoes are a result of direct inter-palatial communication between Avaris and Crete, it is possible that the inauguration of the project required a mutual agreement between the two parties. In the first place, the present author assumes that Egyptians (palatial delegates?) were sent to the Minoan palaces, where they admired the original Minoan frescoes. It is difficult to accept that

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1197 See above, this chapter: 'Style and technique'. For instance, Marinatos (2010b: 340-343) sees at least one master and two assistants being involved in the painting of the Hunt Frieze.
1198 For the frescoes painted for a special event see Bietak 2007b: 86.
1199 See above: Stratigraphic position and date of the Avaris frescoes'.
1200 See Bietak 2007b: 86
1201 There is no direct evidence that Egyptian officials visited the palace of Knossos; nevertheless, this is possible judging from the number of high-value Aegyptiaca discovered on Crete. After all, the slightly later-in-date list of Kom el-Hetan (mid-eighteenth dynasty) may document official Egyptian
the patron/s ordered the painting of Aegean frescoes in Avaris without knowing what these frescoes looked like in their original environment, or, at least, without being convinced by others for their highly aesthetic standards and appropriation to decorate the local palaces. Moreover, if Aegean individuals were in the palace or in the region, first-hand information would be available to both patrons and painters, with regard to artistic styles and fashions. When the project was approved, a team of Minoan / Aegean artists travelled to Avaris and started work. The crew of Minoan artists had to communicate with the Egyptian patron/s, therefore, Aegean - Egyptian amateur or professional interpreters (individuals who were capable to speak both Aegean and Egyptian - possibly Aegeans settled in Egypt or Egyptians who understood the Aegean tongue -?) may have been involved in order to negotiate the artistic and other details of the project. Interpreters may also facilitate communication between the Aegean artists and any local men working on the project. There certainly was a social hierarchy in the Aegean mission visiting Avaris to paint the frescoes, ranging from high-officials and project directors to chief artists, plasterers and trainees. Therefore this author maintains that decision making and official communication between the two parties was the prerogative of specific individuals. Similarly, Egyptian officials must have been on duty in order to deal directly with the committee of Minoan artists.

visits to the Aegean. For the Kom el-Hetan list see chapter Four: 'Texts'. See also Cline 1987: 19-23; 1991: 40-42; contra Wachsmann 1987: 95-97, 113-114; Rehak and Younger 2001: 455.

1202 For Minoan interpreters in Egypt see Helck 1979: 435-443. The idea that a Minoan translator / interpreter worked abroad is not new. See ARMA 1270= ARMT 23: 556: 28-31(after Bardet et al. 1984: 528-529) (table 41b) which mentions a Minoan interpreter not in Egypt, but in Mari. Egyptians who understood and spoke the Minoan / Aegean language may have been second generation Minoans, or they had spent some time in an Aegean land, or in the companion of Minoans / Aegeans. For the Aegean presence in Egypt see chapter Seven, particularly 'On the razor's edge: Aegeans in Egypt and Egyptians in the Aegean'.

1203 Egyptian eighteenth dynasty titles, such as 'overseer of foreign lands' or 'king's messenger in all
The author also regards that, if the theory of travelling, freelance artists applies, these had to deal directly with the patrons, without third party involvement from the Knossos palace. Again, the contribution of interpreting services was necessary. As painting the Avaris fresco project required the use of a considerable number of individuals, it is understood that a) trained and supervised local artists helped Aegean master artists and b) travelling artisans would have benefited from their participation in a 'guild'.

The speed of execution of the frescoes is unknown. It depended on the size and difficulty of the project, the number of individuals in crew, working hours and conditions and direct or indirect availability and supply of any materials required for plastering and painting. Generally, when the desired result is *buon fresco* on lime plaster, more than ten to twelve hours of work are required per day, as it takes at least four hours to set things up and lay the plaster for the day. Plastering the wall layer over layer (each time waiting for the lower layers to set) usually demands a significant number of working hands, masters and helpers. Designs and *sinopie* also require preparation and dexterity, thus the plastering stage of the walls becomes extremely time-consuming and labour intensive. Time and work depends on whether the base coats of plaster have been applied by the builder or not. However, even in that case, a lime coat is usually needed. Also, the larger the size and the more the corners of the painting

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1204 [§ trader and other professional 'guilds'].
1205 See above: 'Style and Technique' and Brysbaert 2007; 2008.
surface, the more time-consuming plastering will be. When it comes to polishing and painting, numerous craftsmen are also involved. Complex scenes are more time-consuming than plain decoration. The author must add to this the time involved for any, even minor, secco details and corrections in plastering and painting.1206

Judging from the previous case study, and if the large number of fragments and decorative scenes from Avaris is taken into account, the project probably lasted from a few months to over a year to complete. During that time, the crew stopped in Avaris and mixed with the locals. In theory, the more time they spent in Avaris, the more historical/archaeological remains they left behind. It is these foreign 'traces' historians, archaeologists and linguists are called on to discover and investigate, in order to ascertain the identity of the artists and their cultural/ideological background.

5.6 The Aegean interactions with Avaris addressed historically

The discovery of Minoan/Aegean items at Tell el-Dab'a (e.g. [M1002], [M1003], [M1009]) and that of the lid of Khyan at Knossos [P163], if it is not seen as an antique in its context, may suggest that Crete had developed early contact with Avaris.1207

1206 For information on the technique of frescoes painting, the author would like to thank Ilia Anossov, fresco painter and sculptor (http://frescoschool.org/fresco_faculty.html) who has experimented with ancient techniques of fresco painting (personal communication via email: 04/01/09).
1207 For the artefacts and their context and date see the previous chapter and the Annex and spreadsheet. If Khyan is placed in the thirteenth dynasty (Moeller and Marouard 2011), then diplomatic contact between this dynasty and Crete is also likely.
Wachsmann even sees an Aegean presence at Avaris in the late Hyksos period. A similar opinion has been expressed by Duhoux. The author of this thesis maintains that the Thutmoside date of the frescoes does not eliminate the possibility that Aegean - Avarian relations were established long before the Thutmoside Period.

It is of course unknown whether the Minoans had arranged a series of alliances and agreements with any Hyksos rulers, the exact number, importance and nature of which remain hypothetical. It is certain, however, that the Minoans were aware of the expanding power of the late Hyksos rulers. Despite this, Minoan - Avarian relations must have also been encouraged via third parties (e.g. Syro-Palestine and Cyprus).

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1208 Wachsmann 2010: 36. See below, chapter Seven: 'On the razor's edge: Aegeans in Egypt and Egyptians in the Aegean'.
1209 See Duhoux 2003: 216-220 and particularly 218, 219
1210 See the discussion in chapter Seven: 'On the razor's edge: Aegeans in Egypt and Egyptians in the Aegean'.
1211 Palace-to-palace (Avaris to Knossos and vice versa) direct contact and gift-exchange at a diplomatic level is mainly proven by the discovery of Khyan's lid at Knossos [P163], as long as it is not considered as an antique in its context. The artefact, which bears royal tiles, could have been sent to Crete as a special greeting gift. To the author's mind, it is more likely, however, that the lid does not demonstrate an A-E diplomatic liaison. The painting of Minoan frescoes at Avaris might have established an A-H agreement or alliance only if these frescoes were to date to the Hyksos Period, as initially suggested by Bietak (in his 90's publications). After all, if seen in accordance with other Aegean frescoes from the Levant, the Avaris murals become a symbol of unity, and possibly a symbol of alliance or 'brotherhood' (commercial, military, cultural, or other) among a group of EM societies. The last concept is possible, only if one accepts that these frescoes appear contemporaneously or nearly-contemporaneously, a theory which is considered problematic by Bietak (Bietak 2007c) and the author herself (table 12). For a discussion of possible A-H / A-E alliances see below, chapter Seven: 'Possible Aegean -Hyksos / Aegean - Egyptian state-to-state negotiations'.
1212 It is possible that some of the Aegeaca and Minoica discovered at Tell el-Dab'a arrived there indirectly, via intermediary stations. The abundance of Cypriot and Syro-Palestinian pottery discovered at Tell el-Dab'a demonstrates that the site maintained good relations with these regions (for the Avarian relations with Cyprus see Maguire 1995; 2009; for the el-Yahudiyeh pottery from Tell el-Dab'a see Kopetzky 2006). Nevertheless, the relatively small number of Aegean (-ising) finds from Tell el-Dab'a does not eliminate the possibility that Aegean - Avarian connections were direct; it may well signify that Avaris was not interested in Minoan pots and bric-a-brac, showing a preference in Minoan painting instead. The relatively small number of Aegean (-ising) finds at Tell el-Dab'a will be discussed in chapter Seven. See also chapter Four: 'Aegean and Aegeanising material in Egypt: Avaris'.

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When Ahmose I captured Avaris, at the very beginning of the eighteenth dynasty, the Minoans did not cease their connections with the settlement. On the contrary, they foresaw that, under new rule, the fall of Avaris could expand their trade activity towards the southern regions of Egypt and other lands under Egyptian control; and so, they entered a commercial alliance with the Egyptians.

In essence, the Egyptianised Hyksos were responsible for the continuation of contact between the Aegean and eighteenth dynasty Egypt, due to the following reasons:

- while in the Delta, the Hyksos paved the way for these relations to continue and intensify, since they previously operated as intermediaries between Aegeans and indigenous Egyptians. It is theoretically possible that during the eighteenth dynasty, any remaining Hyksos in Avaris still operated as such.

- the Hyksos occupation in the Delta, and particularly urbanisation, multiculturalism and openness towards foreign influences in Avaris, significantly transformed Egyptian society and administration and prepared the eighteenth dynasty rulers for an intense schedule of foreign relations, peaceful or

1213 For the fall of Avaris see Bourriau 2003: 197-203; Bryan 2003: 207-212. Again, the differentiation between Egyptianised Hyksos and Thebans in Avaris is done with polity in mind.

1214 Judging from the dates of artefacts and texts. See previous chapter. It is known that Aegeanising pottery (in this case called 'Aegeanising' because of local pottery imitating Aegean pottery) has been unearthed in Nubia. This demonstrates that Nubia received cultural influences from the Aegean via Egypt. See e.g. the imitation of LM IA rhyton from Nubia (provenance unknown) discussed in Koehl 2006: 239.

1215 A reminder that Moeller and Marouard (2011: 105) argued that at least until the reign of Sobekhotep IV, there was administrative contact between Lower and Upper Egypt.

1216 Assuming of course, that one accepts Bietak's notion that a Hyksos community still lived and operated in Avaris in the eighteenth dynasty (note 25).
If Bietak’s Thutmoside date for the frescoes is accepted, their connection with contemporary artistic and historic phenomena is unavoidable. It is during the reign of Thutmose III and Hatshepsut when delegations of Keftiu were first represented in the elite Theban tombs of Senenmut and Useramun. This speaks in favour of a special and, most likely, direct relationship of the Theban monarchs with the Minoan palaces. Additionally, contacts with the Aegean can be confirmed not only from the number of Egyptian artefacts discovered in Aegean locations, but also from the Aegean-inspired decoration in tombs such as Senenmut, Useramun, later in the naturalistic hunting scenes of Rekhmire (TT 100), and also, the tomb of Kenamun (TT 93), in the reigns of Thutmose III and Amenhotep II respectively. At the same time, Egyptian art was influenced by the Aegean artistic style and the so-called flying gallop, first demonstrated on a dagger and gold collar from the tomb of queen Ahhotep and the Aegean-style griffin on the Axe of Ahmose, to be shown fully developed in the tomb of Puimire.

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1217 e.g. compare the models of administration in Egypt, from the Middle Kingdom to the New Kingdom (tables 30-33) and study (table 29) which discusses contact and conflict in Egypt from Amenemhat II to Amenhotep II. With regards to urbanisation in Avaris see chapter Three 'Eastern Mediterranean, World System and Game Theory: the example of the cog-wheel machine' and (map XI). On multiculturalism and foreign influences in Avaris in the Second Intermediate Period see e.g. Bietak 1996; Forstner-Müller 2009; Philip 2006.

1218 As noticed by Bietak 2005: 79-80; Bietak 2007b: 67. See also the following chapter.

1219 For instance, Egyptian stone vessels first appear in LMIA and in LM IB they are more common. See Cline 1994; Bietak 2005: 79-80; Manning 1999: 117; Phillips 2008. For the naturalistic hunt scenes and Nilotic landscapes, see chapter Three: 'Egypt to the Aegean' and note: 678. For a picture of the Minoan style decoration from the Theban tomb of Senenmut see Bietak 2005: 80, fig. 35 and (pictures 155-162, 184-187). For an illustration of the Keftiu delegation in the tomb of Rekhmire see Bietak 2005: 79, fig. 34 and the following chapter. For the 'hunting in the desert' scene of Kenamun [M1005], [M1007] (TT 93) see Davies Nn. De G. 1930: plate XXXIII.

1220 For the flying gallop on the dagger and gold collar from the tomb of Ahhotep, and the one on Ahmose's axe see Smith 1965: 125-126, pls. 84B, 86; Morgan 1988: 53, pl. 63; Warren 1995: 13; 2000: 26-28. For the flying gallop in the tomb of Puimre see Cantor 1947: PL XIII B. For the depiction of a Minoan and a Mycenaean in the delegation depicted in the same tomb see Davies N. de.
Moreover, Keftiu ships are mentioned in the records of Prw-nfr (reign of Thutmose III or Amenhotep II).\textsuperscript{1221}

As happens in the case of M-H relations in the late Hyksos period, it is difficult to determine the nature of diplomatic and political agreements and alliances (if any) between Egypt and the Aegean in the early eighteenth dynasty.\textsuperscript{1222} Such official arrangements would have benefited Crete, since the political and geographical expansion of Egypt meant that the Aegeans were affiliated to the hyper-power of the era.\textsuperscript{1223}

Was there a maritime agreement between the Minoan and the Egyptian throne? Such an agreement would have benefited both parties: on the one hand, the Aegeans would get immediate access to luxury exotica; on the other, early eighteenth dynasty Egyptian rulers would gain the support of the Aegean seagoing fleet against external enemies, as suggested by Bietak and Marinatos.\textsuperscript{1224} Any mutual exchange of commercial or other privileges prospered until the end of the reign of Amenhotep II. During the reign of

\textsuperscript{1221} G. 1922: frontispiece. See also the flying gallop in the tomb of Useramun in Davies N. de. G. 1913: pl. XXII).

\textsuperscript{1222} See also the following chapter on the Aegean delegations as depicted in the Theban tombs of nobles. For A-H and A-E alliances, see the discussion in chapter Seven.

\textsuperscript{1223} Egypt not only had access to the goldmines of Kush, but at the same time, it maintained contact and exchange with neighbouring countries. Therefore, the Aegeans had aspirations in their relationship with Egypt. For the expansionary policy of the early eighteenth dynasty rulers see Bryan 2003.

\textsuperscript{1224} According to Bietak, Syria, Palestine and the Levant still posed a potential threat to the Egyptian throne (Bietak 2000a: 40); thus, a maritime agreement with the Aegeans would secure the north borders of Egypt. The mention of Keftiu boats at Prw-nfr certainly has something to offer to this theory. Marinatos (2011: passim) also suggests a similar scenario. In the tomb of Kenamun (TT 93), the royal Stewart of Amenhotep II, who was in charge of the naval and military base of Prw-nfr, one can see hunting scenes with Minoan features (Bietak 2005: 80; Bryan 2003: 262).
Amenhotep II, Keftiu were still portrayed in elite Theban tombs, even though in a less realistic approach.\textsuperscript{1225}

A closer look at the ancient naval base of \textit{Prw-nfr} can provide even more historical hints with regard to Aegean - Avarian contacts. \textit{Prw-nfr} is also linked to Kenamun, who must have played some role in Egyptian - Aegean interactions.\textsuperscript{1226}

According to geophysical investigations, the Thutmoside stronghold of \textit{Prw-nfr} is suggested by Bietak to be located, not in Memphis, but in Avaris.\textsuperscript{1227} In 2009, geomagnetic surveys revealed basins in the vicinity of Tell el-Dab'a.\textsuperscript{1228} The basins, which are presumed to be harbours, were probably in use during the eighteenth and later, nineteenth dynasty, when Avaris was still a naval base, possibly the harbour of nearby Pi-ramesse, the Egyptian capital during the Ramesside Period.\textsuperscript{1229}

\begin{footnotes}
\item [1225] See the following chapter. Nevertheless, Amenhotep III must have attempted to re-establish A-E relationships (Cline 1987: 19-23; 1991). See also the list of Kom el Hetan in chapter Four: 'Texts'.
\item [1226] Not only was he appointed the superintendent of \textit{Prw-nfr} (Bryan 2003: 262), but his tomb (TT 93) makes mention of Keftiu, and bears Aegean / ising decoration (Davies N. de G. 1930; Watchman 1987: 38-40). See above, note 1224 and chapter Four: 'Texts'.
\item [1227] Bietak 2009: 15-17; Forstner-Müller 2009: 10-13. The basins can also be seen in the geophysical results announced on the 22nd of June 2010 on the Egyptologists' electronic Forum. See also, Taha et al. 2011 and Forstner-Müller et al. 2010.
\item [1228] The geophysics (2009) suggested that Harbour 1 is parallel to a fortification wall of the time of Horemheb. Harbour 2 is situated just behind the palace of Hyksos king Khyan (for this palace see Bietak et al. 2014b). The existence of a third harbour is very likely. Among all basins, the nearest to 'Ezbet Helmi is harbour 1. The presence of the harbours in the area could be supported by literary evidence: on the second Kamose stela, Kamose boasts of having destroyed hundreds of ships at Avaris. See Bietak 2009: 15-16; Forstner-Müller 2009: 10-13.
\item [1229] Bietak 2009: 17. Notice however that recent work in area R/IV, where the main port of the citadel was assumed to be located, has not produced any archaeological evidence dating to the eighteenth dynasty (this information comes from the 'digging diary 2012/2013' in 'Egyptian Archaeology', Spencer 2013: 31). Yet, the latter does not signify that the harbours were not used in the eighteenth dynasty -- it may simply be a matter of further research for evidence for eighteenth dynasty occupation to be discovered by the basins / harbours.
\end{footnotes}
If Prw-nfr equals Tell el-Dab'a, then it is possible that Keftiu ships anchored in the ports of Avaris, as they did in Syro-Palestine and the Levant. Hence, the discovery of the harbours suggests a direct connection between the Aegean and the Egyptian world. The naval base of Avaris was used for both commercial and military enterprises.

MacGillivray even argues that palace [F] at Tell el-Dab'a may have been erected as a Keftiu post in Egypt's royal shipyards. Does this imply that the Egyptians had established a commercial, or even military alliance with the Minoan palaces? Could it be that A-E relations at the time of Hatshepsut and Thutmose III were direct, and not indirect, via Syro-Palestine, as it was assumed in the past?

As mentioned earlier, Bietak shows a preference for the reign of Thutmose III and Hatshepsut for the date of the Avaris frescoes. Hatshepsut's internal policy focused on ambitious buildings project that far outstripped the ones of her predecessors. To cover her needs for building materials, raw materials and elite products to vaunt the throne's wealth and power, she had to secure transactions with neighbouring countries.

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1230 Papyrus BM 10056 (British Museum, London) clearly mentions Keftiu ships in Prw-nfr. See text {1} in the appendices. MacGillivray (2009) argues that palace [F] could have been erected as a Keftiu post in Egypt's royal shipyards. If Prw-nfr is situated at Tell el-Dab'a this would explain why the Keftiu appear to come from the 'Great Green' (= Nile Delta in the eighteenth dynasty in Duhoux's mind) in the tomb of Useramun (reign of Thutmose III) as stated by Duhoux (2003; 2007). For the 'Great Green', see chapter Four: 'Terminology' and the 'Texts' on the spreadsheet.

1231 MacGillivray 2009.

1232 When the Egyptian artists depicted the Keftiu on the walls of the eighteenth dynasty Theban tombs, they probably made mention of a direct commercial agreement with the Aegeans, even though they regarded themselves as more powerful than other peoples. The royal gifts are shown offered as \( \text{inv} \), tribute to the Pharaoh. See Wachsmann 1987 and the following chapter.


1234 For Hatshepsut's building project see Bryan 2003: 229-234. The question arising here is as follows: could one assume that Hatshepsut and / or Thutmose III used the Avaris palaces, were they the ones who ordered the frescoes to be painted on the walls? So far this idea remains problematic and further investigation is required to answer this question.

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First, by organising the trade / diplomatic mission to Punt, she arranged imports of exotic luxury goods (gold, incense, ivory tusks, panther skins, etc.) from Nubia to Egypt and thus, inaugurated new trade routes.\textsuperscript{1235} In a similar way, Egypt may have forced a trade / exchange connection with the Aegean.

When Thutmose III became the sole ruler of Egypt, he identified a potential of glory and wealth lying to the north-east. After a series of military and other campaigns, he successfully established authority over Palestine, Syria and the Levant, gaining control of the trade routes that had, until then, been dominated by Syrian, Cypriot, Palestinian and Aegean traders.\textsuperscript{1236} At the same time, imports of luxury goods from Nubia continued: the ruler made his name prominent in Nubia, through a number of monuments built by him.\textsuperscript{1237} Likewise, to Bietak and Marinatos, a commercial and / or military agreement between the Egyptian and Minoan palaces would make perfect sense. From the warfare point of view, it would provide Thutmose III the support of the powerful Minoan fleet, along with raw materials for weaponry making.\textsuperscript{1238} Additionally, in the context of a commercial alliance, the acquisition of imported goods from the Aegean would please the Egyptian elite.\textsuperscript{1239}

\textsuperscript{1235} For the trade mission to Punt see Bryan 2003: 234.
\textsuperscript{1236} See \textbf{(tables 28, 29, 33)}. For Thutmose's III campaigns see the recent work of Gabriel 2003: 81-198.
\textsuperscript{1237} See \textbf{(table 33)}. For the kingship and expanding policy of Thutmose III see Bryan 2003: 235-241.
\textsuperscript{1238} For the contribution of the Minoan fleet in the warfare of Thutmose III see Bietak 2000a: 40; Marinatos 2011: passim. See also Papyrus BM 10056, British Museum (\{I\} in the texts), which mentions Keftiu ships in \textit{Prw-nfr}. The date of this papyrus is certainly problematic but most likely dates to the reign of Amenhotep II, nevertheless, it may describe events that started before this Pharaoh, during the reigns of Hatshepsut / Thutmose III, if one considers that the accompanying text of the Aegean display in the tomb of Useramun refers to the Keftiu coming from the Great Green (see MacGillivray 2009: 165 and the following chapter).
\textsuperscript{1239} Despite having limited numbers of Aegeaca and Minoica from early eighteenth dynasty Egypt, one should not underestimate the 'trade' of goods that have not survived in the archaeological records, such as wood, oil, etc.

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According to the *Annals*, the foreign policy of Pharaoh Thutmose III was not only limited to his military campaigns. In an attempt to establish control over foreign lands, he 'Egyptianised' the sons of his enemies and he took non-Egyptian wives. The names of the three wives of Thutmose III, buried in Wadi Qubbanet el-Qirud, are Asiatic.\(^{1240}\) Whether this Pharaoh ever took an Aegean princess as his royal wife is not known, as there is not sufficient historical or archaeological evidence to support this concept. Nonetheless, the Avaris frescoes could - in theory - reflect such a diplomatic marriage or event.\(^ {1241}\) Lastly, the later Pharaoh Amenhotep II had military successes in the Levant and brought peace and prosperity to Egypt.\(^ {1242}\) During his reign, the Aegean-Egyptian connections moved under the same frames, though, slightly reduced and possibly indirect.

The question remains: can scholars envisage a Minoan settlement at Avaris? So far, archaeological discoveries do not fully justify this theory; apart from the frescoes, limited Minoan / Aegean items and especially pottery have so far discovered on site.\(^ {1243}\) Nevertheless, considering that the borders of Avaris are now proven to be a lot more

\(^{1240}\) For the diplomatic marriages of Thutmose III see Bryan: 240. For the Egyptianising of the sons of foreign rulers see Bryan 2003: 238 and Redford 1992: 178, 198. See also chapter Seven: 'On the razor's edge: Aegeans in Egypt and Egyptians in the Aegean'.

\(^{1241}\) Bietak (2005c: 40) states that Avaris palace [F] would have been the residence for a Minoan consort. See chapter Seven: 'On the razor's edge: Aegeans in Egypt and Egyptians in the Aegean'.

\(^{1242}\) Bryan: 241-246.

\(^{1243}\) The theory is supported by Duhoux (2003). See also Wachsmann 2010 who argues that there was a Minoan minority living in late Hyksos Period Avaris; including Minoan craftsmen. The issue is discussed in detail in chapter Seven: 'On the razor's edge: Aegeans in Egypt and Egyptians in the Aegean'.

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extensive than initially estimated, future discoveries may surprise researchers.1244

And what about the Mycenaeans? As Morgan has stated, the fact that the Hunt Frieze from Avaris has some parallels in early Mycenaean art, hints at possible Avarian relations with the Mycenaean elite on the Greek Mainland.1245 If this is the case, the Avaris frescoes would show that the Mycenaean elite already had political and economic aspirations in Egypt.

The possibility that Minoans settled in Avaris and elsewhere in Egypt, along with a detailed consideration of possible A-H / A-E alliances and treaties and the theory of an A-E political marriage will be discussed in detail in chapter Seven.

5.7 Re-evaluating the Avaris frescoes through Game Theory and the World Systems approach

After discussing the Aegean(-ising) frescoes at Avaris and elsewhere, it can be concluded that:

A) From the GT point-of-view

1245 Morgan 2010a: 295. For these parallels, see Morgan 2010a,b.
There are different ways of interpreting the existence of the frescoes, and interpretations are not mutually exclusive:

- The frescoes, as a result of a diplomatic greeting gift between rulers, express contact and diplomacy, an alliance and coalition between players. In this case, game players are the palace authorities, i.e. the states. Here, game strategy is the exchange of highly-valued diplomatic greeting gifts among rulers, such as the painters and the murals they created. Coalition is also expressed were the Avaris frescoes to be linked to a diplomatic marriage between an Aegean princess and an Egyptian ruler. The payoff of the game (i.e. improved relationships) is shared primarily between the palaces involved.

- Alternatively, the frescoes, as the work of travelling artisans selling their skills to wealthy patrons, are a product of the market. In that case the market is the game and the players are the artisans, who are of course associated with the palaces as their work is largely commissioned by them. Here, the payoff of the game is shared between the artisans (their livelihood) and the palaces (their

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1246 As suggested by researchers such as Bietak 2007b: 86 and Marinatos 2010b: 351.
1247 In other words, the frescoes themselves are the strategy in A-E relations, since their creation serves specific purposes.
1248 A view favoured by Bietak (1996; 2007). For these views see the previous pages 'Who painted the Avaris frescoes and why were these frescoes painted? A cornucopia of ideas'.
1249 See chapter Two: 'Game Theory and Aegean - Egyptian relations: IV) Conflict and coalitions'.
1250 A concept favoured by Niemeier W.D. 1991; Niemeier B. and W-D. 2000B: 763-802; Bootolis 2000; Shaw, M. 2009, Cline et al. 2011. See the previous pages 'Who painted the Avaris frescoes and why were these frescoes painted? A cornucopia of ideas'.

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prestige).\textsuperscript{1251}

- Since Aegean and Aegeanising frescoes appear in several EM regions and some date older than others, in GT terms, this fact demonstrates a cyclical behaviour and repetition in strategic models and moves, transference of information, and learning from past experiences of other players.\textsuperscript{1252}

- If the frescoes are associated with the presence of Minoans at Avaris (or elsewhere), then migrations express redistribution of Aegean power in the Bronze Age EM.\textsuperscript{1253}

Likewise, it is notable that

B) from the WS point-of-view

there are also a number of different interpretations:

- The Aegean frescoes in Avaris and other EM regions demonstrate the sense of Wilkinson's 'oikumene'.\textsuperscript{1254} They also express expansionary interests\textsuperscript{1255} on the

\textsuperscript{1251} See chapter Two: 'Game Theory and Aegean - Egyptian relations: VI) Autarky and the market'.
\textsuperscript{1252} See chapter Two: 'Game Theory and Aegean - Egyptian relations: V) Cyclical behaviour'. See this chapter: 'Aegean and Aegeanising frescoes outside the Aegean'.
\textsuperscript{1253} Here redistribution operates as a game strategy (see the discussion of people as carriers of culture earlier in this chapter). Also, chapter Two: 'Game Theory and Aegean - Egyptian relations: III) Expansionary policy' and chapter Seven: 'On the razor's edge: Aegeans in Egypt and Egyptians in the Aegean'.
\textsuperscript{1254} Wilkinson 1993: 219-224. See also chapter Two: 'The world system/s approach', and § 8 oikumene.
\textsuperscript{1255} Expansionary interests are discussed with the economic principles in (table 27).
part of the Aegeans, especially if it is accepted that their production is accompanied by migration.\textsuperscript{1256} Moreover, from the perspective of the market, these frescoes manifest a network of trade routes. Their distribution in space and time\textsuperscript{1257} proves that there was a market for commonly desirable luxuries - in this case Aegean/iseg painting - within a large geographical area, with their fashionable exotic impact rising and declining from region to region.

- These murals reflect certain economic models, such as proto-capitalism, reciprocity, the division of labour and the trade of elite exotica.\textsuperscript{1258} Depending on how, and with what motives, these frescoes were created, they even display the role of the palace elite or the travelling artisans.\textsuperscript{1259} Most importantly, however, they highlight the transference of surplus and wealth in terms of the special expertise of the artists, along with culture, among WS zones, as suggested by Frank and Gills.\textsuperscript{1260}

By comparing what these frescoes demonstrate from the WS and the GT view, one notices common patterns regarding international relations and A-E liaisons; e.g. the market, power and wealth accumulation.

\textsuperscript{1256} See chapter Seven: 'On the razor's edge: Aegeans in Egypt and Egyptians in the Aegean'.
\textsuperscript{1257} See this chapter: 'Aegean and Aegeanising frescoes outside the Aegean' and (table 12).
\textsuperscript{1258} These economic models are discussed with the economic principles in (table 27).
\textsuperscript{1259} This role is discussed with the economic principles in (table 27).
\textsuperscript{1260} Frank and Gills 2000: 9. See also chapter Two: 'Characteristics and behaviour of the World system'.

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In the following chapter, the thesis will proceed to the discussion of the Aegean presence in Upper Egypt, as demonstrated in the Aegean processional displays in Thebes.
Coming in peace by the chieftains of Keftiu and of the islands in the midst belonging to the sea, in bowing down, in putting down the head, through the might of His majesty, the king of Upper and Lower Egypt, Menkheperre, granted life eternally, when they hear of his victories over all countries; their 'tribute' on their backs, in quest of the giving to them the breath of life, through desire of being loyal subjects (lit. being upon the water) of His majesty, to cause that his might may protect them.

Part of inscription from the tomb of Rekhmire (TT 100) (Urk. iv. 1098-9), text {15}
6.1 Understanding the Aegean processional scenes in Thebes

6.1.1 The scenes in their wider context

This chapter discusses processional scenes, depicting groups of Aegean porters bringing their products, as seen on the wall paintings of some eighteenth dynasty elite Theban tombs. 1261

Processional scenes also appear in the Aegean and are associated with rites and rituals, funerary and other; for example, on the fresco of the 'Cup-bearer' at Knossos and the Haghia Triadha sarcophagus. 1262 Therefore, Aegean and Egyptian processional scenes are often examined together. 1263 However, this thesis will not discuss similarities and differences between the scenes of processions in the Aegean and Egypt; rather, it will focus on the scenes of processions in Thebes.

The Aegean processional scenes in Thebes ought to be examined as part of a bigger picture which portrays arrays of foreign men, in certain cases accompanied by their womenfolk. The foreigners, whether independent or subjugated to the Pharaoh, are all shown carrying their tribute / gifts / items of 'trade' in order to offer them to the Egyptian 'state'. 1264

1261 The topic consumes a separate chapter as it demonstrates the nature and some of the key-players of A-E relations.
1263 See e.g. the comparative study of Hiller 1999.
1264 A relatively recent overview of the processional scenes of foreigners in the Theban tombs of nobles.
The most frequently presented ethnic groups in 'tribute' displays are Syro-Palestinians and Nubians. When Aegeans are pictured - always as independent people and never as subservient - their processions consist of male emissaries. In the relevant hieroglyphic inscriptions accompanying the Aegean processional scenes, the Aegeans

is provided in Panagiotopoulos 2006: 377-379; also in Panagiotopoulos 2001, to some extent. Some aspects of this topic are treated in Redford 1967: 120-128; Hikade 2005: 104-108; Hallmann 2006. See also: Panagiotopoulos 2006: 378 for the general characteristics of these displays. In Panagiotopoulos 2006 the scenes are discussed together with the Annals of Thutmose III (Urk IV.647-756), which, apart from being a source of information about the king's military activity, contain lists of 'contributions' from dependent and independent countries (Urk IV.693.11, 694.7-8). The historical authenticity of these lists is also confirmed in the Amarna Letters (see Moran 1992; Albright 1971; 2003; Tarawneh 2010). The parallelism between pictorial and textual evidence is of major historical importance as far as these scenes are concerned. Both scenes and Annals demonstrate the multicultural environment in Egypt during the reign of Hatshepsut and Thutmose III (see also Booth 2005, for the presence of foreigners in Egypt).

1265 See Panagiotopoulos 2006: 390-392 for these nations and the way they are portrayed in the processional scenes. According to the Annals, the Syro-Palestinian region was divided into three areas: Djahi (Ĵ33), Remenen (rmnn) and Retenu (rtn.w)(see Panagiotopoulos 2000: 147-151) and offered the following contributions to the Egyptian 'state' (Urk IV.693.11, 694.7-8): a) Djahi is associated with Palestine. The 'contributions' of Djahi to the Egyptian 'state' appear for the first time in year 35 and thereafter, on an annual basis. Djahi offers šmw = 'harvest' tax (Panagiotopoulos 2006: 373-374; for the term šmw and its uses see also Warburton 1997: 282-286). b) Remenen equals Lebanon with unspecified borders. Panagiotopoulos (2006: 374) notices that Remenen offered b3k to the Egyptian state, an obligatory contribution (the term is translated as work, produce, product of labour). The Nubians (Kush and Wawat) also offered b3k (for the term b3k(w) see Warburton 1997: 237-238). c) Retenu consisted of a large part of the Syrian territory. Panagiotopoulos (2006: 374) states that Retenu offered įnw ('gifts') to the Egyptian court; the term which is related to items arriving at the Egyptian Court from independent countries. These are gifts sent by the Syro-Palestinian chiefs (term wrw is used for independent chiefs) to the Egyptian king (Panagiotopoulos 2006: 374 and the debate on įnw in Panagiotopoulos 2000: 147; 2006: 172, 374-376494-495; For the term įnw and its uses see also Warburton 1997: 221-236). In other words, the Syro-Palestinian nation, mostly under Egypt's political and military control, sent compulsory gifts and delivered harvest tax: Lebanon / Remenen and Palestine / Djahi offered obligatory contributions; Remenen also delivered a share of its 'produce' and Djahy a share of its harvest as tax; and the Nubian provinces of Kush and Wawat sent products to Egypt, on a yearly basis (Panagiotopoulos 2006: 375-376). Contributions to the Pharaoh depended on the political state of the nation. Also terms [§ gift exchange, § reciprocal economy, § command economy § taxation].

1266 Panagiotopoulos 2001: 263; Panagiotopoulos 2006: 392-395, Pinch Brock 2000: 129. The Aegeans offer to the Egyptian court 'ţnw' = 'gifts' (this term will be discussed later in this chapter in greater detail). In the processional scenes of the tomb of Mencheperreseneb (TT 86) at Sheikh Abd el-Qurna some women are shown in the proximity of Aegean - Syrian hybrid masculine figures; but these are Syro-Palestinian women who bear some Aegean elements due to hybridism (for the scene in the tomb of Mencheperreseneb see Panagiotopoulos 2006: 381 - See also (tables 53, 54) for a brief description of this scene). For hybridism see below 'The scenes through the eyes of the artist'.

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are designated either as Keftiu or as people from the Isles in the Middle of the Great Green. Apart from the Aegeans, other foreigners portrayed in the same scenes are Puntites, Hittites and Mitanni. Occasionally, the artists depict foreigners together with Egyptians.

The scenes of processions of foreigners in Theban tombs have been widely discussed as part of the research conducted for the tombs in which they were found. In particular, research of the scenes of Aegeans in the Theban tombs was first attempted by Hall, later, in the major study conducted by Vercoutter. Strange also approached the topic. Later, Aegean processional scenes were re-visited in the publication of the 'Aegeans in the Theban Tombs' by Wachsmann and since then the material has been widely examined and criticized from both an artistic and historic point-of-view.

1267 See above, chapter Four: 'Texts' for the terminology.
1268 Panagiotopoulos 2001: 263, 266-268, 271; 2006: 395-396. The Puntites are portrayed as gift givers (Panagiotopoulos 2006: 395). Hittites are problematic figures in the processional scenes. See some examples of Hittite porters from the tomb of Mencheperreseneb in Panagiotopoulos 2006: 381-382). Mitanni ambassadors are occasionally taken for Syro-Palestinian figures (Panagiotopoulos 2006: 396). Libyans are also portrayed in scenes with non-Aegean porters. Problematic is the fact that Cypriots are not portrayed in these scenes (Panagiotopoulos 2006).
1269 There are various examples of processional scenes that depict Egyptians bringing their contributions along with foreigners. An iconographic example comes from the tomb of Useramun (see Panagiotopoulos 2006: 380), in which Egyptians from the Oasis and the Nile Delta carry their offerings for the Egyptian court.
1270 As an early example, the author should mention the monumental work of Davies 1922; 1930; 1934; 1935; 1943; 1948; Davies and Gardiner 1926; Davies and Davies 1933; 1941 on the Theban processional scenes and the iconography of private tombs in general. See also the bibliography provided for individual tombs in the following pages.
1271 Hall 1901-1902; 1903-1904; 1909-1910
1272 Vercoutter 1956.
1273 Strange 1980.
1274 Wachsmann 1987. Others who have recently discussed the Aegean scenes in the Theban tombs are Rehak 1996; 1998 to discuss iconographic elements and in particular the garments of the Aegean porters - and iconographic parallels of these garments with the Aegean; Pinch Brock 2000 (tomb of Amenemose TT 89 only); Duxoux 2003 (Minoan colony in the Nile Delta); Panagiotopoulos 2000, 2001, 2006 (particularly from the point of view of the authenticity and historical reality of the scenes); MacGillivray 2009 (mainly through aspects of history and chronology).
Theban scenes with Aegeans have raised a lively discussion among Egyptologists, Orientalists and Aegeanists. Nevertheless, due to space restrictions, limited questions will be addressed in this chapter. To start with, what is the exact origin of the Aegean porters? Can the garments and the physical appearance of the Aegeans help researchers interpret their enigmatic origin? May Aegean wares enlighten trade connections and the vis-a-vis A-E relations, as far as their frequency, purpose and form is concerned? Is there any historical reality in the scenes with Aegean porters and the scenes as a whole? The objective is the examination of A-E diplomatic, political and economic relationship from the WS and GT view.

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1275  The annex briefly describes some of these processions (sheet 'Aegean processional scenes') and further references are provided.

1276  These questions, along with other issues, will be discussed later on in this chapter. The authenticity and historical reality derived from the scenes of Aegeans will occupy the final part of this chapter, as it enlightens A-E relations and the role of the state.
6.1.2 The scenes in space and time

First, some background information on the archaeological context related to the scenes is essential. The tombs of the nobles are private tombs of officials who wielded power to a greater or lesser degree in the New Kingdom.\footnote{A few words ought to be mentioned about the architecture and decoration of these tombs (for a brief description see Panagiotopoulos 2006: 378). The early New Kingdom tombs of nobles in Luxor differ from tombs belonging to other periods and sites. T-shaped tombs (i.e. tomb of Rekhmire - see below) date to the eighteenth dynasty. These consist of the following: (I) a forecourt with a gate, part of which is cut in the rock and partly built with the use of mud brick; (II) the upper rock-cut chambers which consist of (a) a transverse hall or 'Hall of Memories'; (b) a long passage; (c) an inner room which contains a niche at the rear wall, in order to accommodate 'free-standing' statues, or rock-cut statues for funerary purposes; (III) and a shaft and subterranean burial chamber which is sealed immediately after the burial. Some of the private eighteenth dynasty tombs, before the Amarna Period, had the rear room and passage compressed to varying degrees (Strudwick 1999, 150). For an architectural description of the eighteenth dynasty Theban private tombs see Manniche 1987: 30; Manniche 1988: 32; Strudwick 1999: 145; 150-152. The painted or carved decoration is found in the chapel only, since this is the area were funerary practices took place (Strudwick 1999: 145). In the reign of Amenhotep III, tombs became larger and acquired several courts and a pillared hall, such as the tomb of Amenemhat (TT 48), Kheruef (TT 192), and Ramose (TT55) (Strudwick 1999: 151). Evidently, some tombs had emphasised pillared facades, e.g. the tomb of Ineni (TT 81) and the high priest of Amun Hepusoneb (TT 67) (Strudwick 1999: 150).} These private tombs comprise a number of distinct areas on the West Bank of modern Luxor, covering about two square miles from Dra' Abu el Naga' to Deir el Medina.\footnote{See (pictures 176, 179-187). For the locations of tombs discussed in this work see (tables 53, 54). Locations of private tombs include Deir el-Medina, Dra Abu el Neggar, Sheikh Abd el-Qurna, El Asasif and Gurret Murrai. There is a large bibliography about the private Theban tombs in Luxor, including Collins 1976: 18-40; Davies d.G. 1948; Dziobek 1989: 109-132; Engelmann 1999; Gardiner and Weigall (1913); Guksch 1995a and 1995b; Hodel-Hoenes 1991; Kampp 1996; Sakurai et al. 1988; Smith 1992: 193-231; Wasmuth 2003; Weeks 2005: 390-391, with references. Individual tombs will be discussed below. (table 33).} Yet, who were these officials?

The nobles were the right hand of the Pharaoh and took a share of the responsibility of their king in administration and other state affairs.\footnote{locations of private tombs in Luxor, including Collins 1976: 18-40; Davies d.G. 1948; Dziobek 1989: 109-132; Engelmann 1999; Gardiner and Weigall (1913); Guksch 1995a and 1995b; Hodel-Hoenes 1991; Kampp 1996; Sakurai et al. 1988; Smith 1992: 193-231; Wasmuth 2003; Weeks 2005: 390-391, with references. Individual tombs will be discussed below. (table 33).} Some of their duties included collecting and recording tributes and annual taxation, military engagements, participation in public ceremonies and festivals, supervision of work, management of...}
governmental departments and other state services. They were honoured by the king with titles and epithets and their high social status was profoundly dependent upon the proximity to their rulers. The walls of the tombs of the nobles are richly decorated with biographical scenes of the officials' everyday life, along with displays of their services to the state. The processional scenes of foreigners in question (among whom appear Aegeans) are part of this specific funerary iconography.

In general, tribute frescoes with scenes of Aegeans or 'cuasi-égéen' figures (including the ones only mentioning 'Keftiu') can be seen in the following Theban tombs of high officials: Senenmut or Senmut (TT 71), Puimre (TT 39), Intef (TT 155), Useramun or

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1280 For the eighteenth dynasty nobility see Kemp 1989: 234-238; Bryan 2003: 234; Panagiotopoulos 2006: 400-401 and (table 33). A sample of the responsibilities of the Vizier (who had a very high social status and was in the immediate proximity to the king) can be read in an inscription from the tomb of Rekhmire (‘The Installation of the Vizier’: the text is provided in translation in Davies 1935: 88-94 and Lichtheim 1976: vol. 2: 22).
1281 See e.g. the titles of the nobles in (table 53). Proximity to the king was important to the high-officials since they drew power from the ruler. The nobles usually participated in events where only high-class could attend. In these events the Pharaoh distinguished nobles who were there to nobles who were absent (Panagiotopoulos 2001: 273-274). The nobles received honours and titles by the Pharaoh. Also, they usually had the chance to meet foreign peoples and some became very involved in foreign affairs (Panagiotopoulos 2006: 400-401).
1282 The 'Hall of Memories' (see note 1277) was decorated with scenes illustrating the professional and private life of the deceased. This is where the tribute scenes were situated. Contrary to the 'Pharaoh' whose place in the 'happy-ever-after' was granted, the nobles had to secure a happy afterlife by 'taking with them', in their tomb, their beautiful memories with their family, the glorious moments in the services of the Pharaoh, and their favourite activities (Manniche 1987: 30 – 31, 35; 1988, 37 – 39; Strudwick 1999: 161). For the wall decoration of processional scenes in tombs see Manniche 1987: 33. For examples of scenes in which the deceased is depicted while practising his profession see Manniche 1987: 33-35; Manniche 1988: 35-36. For scenes with funerary processions see Manniche 1987: 39-40; Manniche 1988: 41; Strudwick 1999, 161; with banquets: Manniche 1987: 41-42; Manniche 1988: 33. Two complete examples are provided for their concise iconography: a) tomb of Rekhmire (Manniche 1987: 52-53) and b) tomb of Puimre (Manniche 1987: 57). On iconography see also Brovarski et al. 1982 (mid to late eighteenth dynasty).
1283 See the foreign processional scenes described in Panagiotopoulos 2006: 385-389.
1284 (pictures 138-153), and the spreadsheet (CD), scenes 1-6 on the sheet of the Aegean processional scenes. The term 'cuasi-égéen' was used by Vercoutter 1954; 1956 to describe Aegean porters who bear some foreign (non Aegean) characteristics in their appearance, e.g. the Aegean - Syrian hybrids in the scenes from the tomb of Amenmose TT 89 (see Pinch Brock 2000 for these scenes). The term 'hybridism' will be discussed in the following pages in 'The scenes through the eyes of the artist'.

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Amenuser (TT 131), Mencheperreseneb (TT 86), Rekhmire (TT 100), Amenemhab (TT 85), Amenmose (TT 42 - not to be confused with TT 89), Kenamun (TT 162), Anen (TT 120), Montuherkhopeshef (TT 20), Sobekhotep (TT 63), deceased unknown but tomb usurped by Ineni (TT 81), Iamunadjeh (TT 84), which is usurped by Meri, Amenmose (TT 89 – not to be confused with TT 42), deceased’s name lost (TT 119), Amenemopet (TT 276). However, only eight tombs - those of Senenmut, Puimre, Intef, Useramun, Mencheperreseneb, Rekhmire, Amenemhab and Amenhose - will be presented in the study. Special emphasis will be given to the first six, as the examples of Aegean displays they provide are the most representative for this research. Later tombs will not be discussed.

Attention will initially be placed on the dates of the scenes of procession, in accordance

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1285 For a brief overview of some of these scenes see Panagiotopoulos 2006: 379 (TT 82); 380 (TT 131); 381(TT 86); 382 (TT 100); 383 (TT 84) and (TT 85); 385 (TT 39); (TT 155) and (TT 20); 386 (TT 71). Scenes from the tombs of Senenmut, Puimre, Intef, Useramun, Mencheperreseneb, Rekhmire (of particular interest for this study) are also described in great detail in Wachsmann 1987 and in brief, in (tables 53, 54).


1287 The scene from the tomb of Amenmose TT 89 (reign of Amenhotep III) (examined in Pinch Brock 2000) is discussed in this thesis as a later example, for comparison with earlier case-studies. The tombs dating to Amenhotep III and IV will not be discussed in detail in this work, as they do not synchronise with the time limits of this research. Other scenes that will not be discussed do not depict the ‘pure’ Aegean figures, but rather hybrid figures (for ‘hybridism’ see below). Some tombs, such as the tomb of Intef (or Antef), are so badly damaged that no discussion can be made (see Panagiotopoulos 2006: 379).
with the dates of the tombs to which they belong. It is important to observe the coherence of this specific artistic iconography in space, time and historic value.\textsuperscript{1288}

The Aegeans appear in the Theban tombs during the reigns of Hatshepsut, Thutmose III and in the very early reign of Amenhotep II, with only a few traces in the reigns of Amenhotep III and possibly Amenhotep IV(?).\textsuperscript{1289} Wachsmann argued that the Aegean scenes in later tombs (during and soon after Amenhotep III) are distorted and have lost their originality due to transference and hybridism.\textsuperscript{1290} In the author's mind, later tombs yet lack the necessary attention, particularly as far as the study of porters bearing Aegean elements is concerned.\textsuperscript{1291}

Thus, judging from the sequence of the tombs' dates, the Egyptian artists ceased representing Aegeans in the Theban tombs soon after Amenhotep IV, if not earlier, and their disappearance from the Theban frescoes was complete and irrevocable beyond this

\textsuperscript{1288} As seen at the end of this chapter, the historical value of the scenes is dependent upon their date and iconography.

\textsuperscript{1289} (tables 53, 54). The date limits are according to Pinch-Brock 2000: 129. Panagiotopoulos' (2006: 378) distinguishes four chronological frames for the scenes: Hatshepsut, Hatshepsut / Thutmose III, Thutmose III and Thutmose III / Amenhotep II. MacGillivray distinguishes similar chronological limits (2009: 164) and discusses the historical reality of the scenes in accordance with their dates. See also (table 53).

\textsuperscript{1290} Wachsmann 1987: 49. This is why Wachsmann chose not to examine them in his 1987 study. For an iconographic example altered by transference and hybridism see the processional scene of Aegeans in the tomb of Amenmose TT 89 (examined in Pinch Brock 2000): the Aegeans' physical characteristics, garments and wares bear mixed Aegean and Syrian elements. For 'transference' and 'hybridism' see this chapter: 'Artistic technique: the scenes through the eyes of the artist'.

However, according to Wachsmann, only during the period from Hatshepsut to early Amenhotep II did the Aegeans appear in the Theban wall-paintings in a clearly Aegean manner, and later representations derived from, or were free modifications of the early eighteenth dynasty tombs. Pinch Brock embraces the opinion that the scenes from earlier tombs are more original than the later ones; nevertheless, she demonstrates that Wachsmann's physical criteria to define Aegeans do not always hold up. Therefore it could be argued that the climax of the scenes of Aegeans in the Theban tombs covered a period of less than a century, since, after the early reign of Amenhotep III this particular iconography commenced to decline. Even so, tribute scenes with the foreigners' processions (depicting other foreigners - but not Aegeans) continued to be a popular theme in sepulchral art throughout the eighteenth dynasty.

Once more, researchers face the problem of chronology. Since the chronological links between the Aegean and Egypt in the early eighteenth dynasty, along with the date of the Thera eruption, are still a subject of great dispute, it is wiser to link the scenes of Aegean porters with the reign of particular Pharaohs rather than providing exact dates.

1292 Panagiotopoulos 2001: 263, 268-270; 2006: 378; Rehak 1998: 40-42; Pinch Brock 2000: 229; MacGillivray 2009: 164-170. As shall be seen below, there is an iconographic coherence in the 'pure' traditional elements of the Theban processional scenes depicting Aegeans, which declines in originality through the course of time.

1293 Wachsmann 4-26, 103-105. The clearly Aegean iconographic manner is deprived of foreign elements in the figures of the porters.


1295 Panagiotopoulos 2001: 263; 2006: 378; MacGillivray 2009: 164-169. It would be interesting, therefore, to investigate whether, historically, the decline of the depictions of Aegeans in Thebes signifies a decline in A-E relations or the number of Aegean visits to Egypt. See this chapter: 'Aegean processional Scenes in Egypt: Authenticity and historical reality'.

1296 Rehak 1998: 4; Panagiotopoulos 2006. The question which immediately crosses one's mind is 'why did the Aegean delegates disappear from these processional scenes over time?'
chronological figures in calendar years. However, it needs to be kept in mind that precise dating of the tombs and the scenes themselves, and the linkage to one ruler or the other, is not always possible, as some of the deceased high officials served more than one Pharaoh in their lifetime.

After placing Aegean and Egyptian chronology side by side, according to the chronological scheme followed by Phillips 2008, the reader will notice that the reigns of Hatshepsut and Thutmose III correspond to the latest phase of LM IA and LM IB; even so, with the Aegean and Egyptian chronologies being that fluid and the date of the Minoan eruption 'in limbo', only approximate chronological evaluations can be made. Researchers receive a warning sign of trouble: how might the Thera eruption have affected A-E relations and the iconography of Aegean processional scenes themselves? What about the Mycenaean 'takeover' on Crete? How can this be mirrored on Theban scenes of foreigners? These questions have been partly examined in chapter One, but they will be raised again in the end of this chapter, when the thesis discusses the historical reality of the scenes with Aegean porters.

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1297 Panagiotopoulos 2001; 2006. MacGillivray (2009) however have approached the issue from a chronological point of view.
1298 Panagiotopoulos 2006: 378. See (tables 53, 54) for the dates of the Aegean processional scenes.
1299 (table 14) compared to (tables 4, 5, 13-15, V, 17d, 18).
1300 MacGillivray attempted to answer this question in his 2009 study. The reasons, motivations and objectives of the Aegean visits to Egypt depend on historical events such as the date of the Thera eruption.
1301 (table 10). The exact date and method of the Mycenaean takeover on Crete is problematic (chapter One). Researchers such as MacGillivray (2009) interpret the iconography of the garments of the Aegeans as a switching of power on Crete, from Minoans to Mycenaeans. See (tables 10, 14-14, 19, 28, 35-36).
1302 See chapter One 'Analysis'.

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6.1.3 Scenes with processions of foreigners: a brief description

The scenes with processions of foreigners appear almost exclusively in tombs of high officials who worked in the services of the Pharaohs. These scenes usually occupy part of the back wall in the private so-called 'Hall of Memories' of the deceased, i.e. the transverse hall. The foreigners appear in panels, bringing valuable objects which are usually produced in their homelands, with some exceptions. When the deceased receives them, he is sometimes accompanied by servants or relatives.

According to Panagiotopoulos, the elements of these processional scenes usually are: a) foreigners with their wares, proceeding in one or more registers, b) the leader of the procession bowing to the Egyptian Pharaoh, c) a display of valuable objects to be offered to the Pharaoh d) scribes keeping records of the objects offered, e) the tomb owner presenting the procession to the Pharaoh and f) and the enthroned Pharaoh, or the state official who receives the wares on behalf of the Egyptian ruler.

The scenes of procession demonstrate specific official ceremonial and administrative events occurring regularly, such as the New Year festival, coronations and Sed (jubilee)

1304 For the 'traverse hall' or 'hall of memories' see above, note 1277.
1305 Panagiotopoulos 2006: 378, and the spreadsheet (CD), for a brief description. Due to hybridism and transference, occasionally Aegean porters may appear to be carrying foreign objects (Wachsmann 1987: 4-8, 11-12, with examples). Wachsmann states that Aegean articles are put in the hands of Syrians and Aegeans bring Egyptian items, due to transference (Wachsmann 1987: 12).
1306 Panagiotopoulos 2006: 378, 386.
1307 Panagiotopoulos 2001: 266; 2006: 386. An example can be seen in the processional iconography from the tomb of Rekhmire (TT 100) in Panagiotopoulos 2006: 382-383.
festivals of rulers; and the formal ceremony named *ms ʾınw*, in which the Pharaoh or his high-officials received offerings (*ʾınw*) by foreigners in return for the 'breath of life'. Collected goods were carefully recorded and grouped in donations, taxation, etc, in a ceremonial and almost 'theatrical' way. After these ceremonies, the *ʾınw* became property of the king.

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1308 Panagiotopoulos 2001: 168-70; 273-274; 2006: 378, 386. An example of coronation ceremony related to processional scenes is displayed in the tomb of Useramun (MacGillivray 2009: 165). An example of ceremonial connected to the *Sed* festival is seen in the processional scenes from the tomb of Rekhmire (Panagiotopoulos 2009: 166). Other similar festivals and occasions include: regular formal court ceremonies (e.g. Intef - TT 155); ceremonial gift-giving in foreign lands (Amenmose - TT42); ceremonial presentation of booty (e.g. Rekhmire - TT 100); royally-commissioned trade expeditions (Senefti – TT 99); the delivery of yearly obligations to the temple of Amun or to the Vizier's bureau (e.g. Ineni – TT 81), etc. See also MacGillivray 2009: 164-169.

1309 Bleiberg 1996: 96, 98-99; for *ms ʾınw* see Bleiberg 1996: 105-106. This ritual / ceremony took place on an annual basis and dates back to the Middle Kingdom. The porter bringing gifts is called *ngt* = one who gives the king *ʾınw* (Bleiberg 1996: 88, 111). The breath of life (*ḥ3w n ḫw*) is an expression with religious-cultural and administrative meaning. It demonstrates the idea that the deified Pharaoh is so powerful that he can even control life on earth. The king's face symbolises the *breath of eternal life* (Wilkinson 2003: Kneph).

6.1.4 Artistic technique: the scenes 'through the eyes of the artist'

Wachsmann examined the processional scenes 'through the eyes of the artist'.\textsuperscript{1311} He initially speculated whether the sources of these frescoes were primary, in other words, drawn directly from life; or secondary, i.e. prepared from existing representations. As the central 'traditional' elements of the scene seem to be re-produced in numerous tombs, it is likely that the same source was used repeatedly to create a number of renditions of a common scene; otherwise renditions were copied from previous representations in earlier tombs.\textsuperscript{1312}

Therefore Wachsmann examined three artistic elements in relation to the Aegean processional scenes: a) hybridism, b) transference and c) the sources of artistic inspiration.

a) Hybridism: the combination of subjects, human figures, objects or even entire scenes in such a way that the artistic result was created by uniting elements originally differentiated, and belonging to two or more separate entities.\textsuperscript{1313} Physiognomy, garments and products and titles of ethnicities in texts were sometimes combined to create new hybrid figures.\textsuperscript{1314} As an example, in the processional scene of foreigners

\textsuperscript{1311} Wachsmann 1987: 4-26. Wachsmann examined artistic elements in relation to the inspiration and creation of the processional scenes.

\textsuperscript{1312} Wachsmann 1987: 4.

\textsuperscript{1313} Wachsmann 1987: 4-9.

\textsuperscript{1314} Wachsmann 1987: 4-9; Panagiotopoulos 2006: 388; Rehak 1988: 47; The scenes of foreign tribute in the tombs of Mencheperreseheb (for this scene see Wachsmann 1987: 33; Panagiotopoulos 2006: 381) and Rekhmire (Wachsmann 1987: 35-37; Panagiotopoulos 382-383 for the scene description) provide numerous examples of hybridism. For example, in register I of the scene in the tomb of
from the tomb of Mencheperreseneb, following the three Syrians introducing the
register, one finds that interspersed between the row of Syrians and their womenfolk are
figures with both Syrian and Aegean features.\textsuperscript{1315} Panagiotopoulos objects to the use of
hybrid figures as historical sources.\textsuperscript{1316} To Pinch Brock, Aegeans depicted in Syrian
garments, or bringing Syrian objects may be Aegeans who became trading partners with
Syria or colonists and members of a diaspora.\textsuperscript{1317}

Yet, hybridism, according to Wachsmann, could by justified by the artist's desire to vary
the colour theme; and moreover, his endeavour to represent a foreign people for which
he lacked source material concerning their typical characteristics.\textsuperscript{1318} On the last point,
however, Pritchard suggested that this is not necessarily true, and indeed, the author of
this thesis finds that his opinion is worth considering:

'Egyptian artists from the time of Thutmose III onward had frequent opportunity to
observe the foreigners who came, or were brought into Egypt. It would be strange
indeed if their representations of these people did not catch something of their actual
appearance'.\textsuperscript{1319}

Considering hybridism in the Aegean processional scenes, to the author, it is indeed

\textsuperscript{1315} Davies and Davies 1933: 4. See also Panagiotopoulos 2006: 381.
\textsuperscript{1316} Panagiotopoulos 2006: 388
\textsuperscript{1317} See Pinch Brock 2000: 135, and this chapter: 'What the Aegean processional scenes in Thebes tell
researchers about the Aegeans': '8'.
\textsuperscript{1318} Wachsmann 1987: 4-8. Sources could be primary or secondary: i.e. face-to-face contact with
foreigners or the representation of foreigners in other artistic media.
\textsuperscript{1319} Pritchard 1951: 40. This statement also demonstrates the multicultural environment in Egypt during
the reigns of Hatshepsut and Thutmose III.
likely that the artists had seen Aegeans in Egypt as their visits are historically proven, and naturally, foreigners visiting Egypt would attract local attention. There is also a possibility that at some point, during their career, the Egyptian artists who painted these scenes had directly co-operated / exchanged artistic knowledge with visiting Aegean artists, such as those who painted the Avaris frescoes.

Thus, in the author's opinion, researchers should place the cause of hybridism in the artistic technique per se and far less to lack of contact between the artists and the foreigners depicted, or the lack of sources. Moreover, the fact that the scenes were painted by more than one 'hand', with all artists having received different life experience and training, needs to be considered. This author, after seeing some of these scenes herself, maintains that the objective of the artists was not the accurate representation of foreign figures but the depiction of the idea that specific nationalities were present, whereas others were absent. This is why, to the author's view, foreigners were sometimes depicted through 'dramatic' hybridism; for the purposes of artistic emphasis. The processional scenes in particular, and in general the wall decoration of private tombs, were so overloaded in content, that anyone who might ever look at the scenes - even the deceased in his afterlife - would not be able to appreciate the artistic detail of

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1320 e.g. from the Aegean processional scenes and the Avaris frescoes.
1321 See e.g. the view of Maria Shaw (1997: 499) for Aegean and Egyptian artists working together.
1322 In the tomb of Amenmose (TT 89), for example, the work of two or more 'hands' can be distinguished. See Pinch Brock 2000: 130. It is hypothetically possible therefore, for an artist who has practised the Syrian figures and an artist who has practised the Aegean ones to co-operate in the making of a brand new hybrid figure. It is equally possible for some of the artists to have seen the foreigners whereas others had not.
1323 A similar idea, stating that human psychology interprets tomb decoration through the use of symbols reflecting concepts, has been expressed by Van Walsem (2005:21), only, for the decoration of elite Old Kingdom tombs. The same concept may apply in the case of the Aegean processional scenes.
who-is-who, what exactly the porters wore and carried; but the viewer would be able to 'catch the general meaning' and 'tick the boxes' of which nations were depicted.1324

b) Transference: To Wachsmann:

'Transference is the phenomenon in Egyptian Art by which objects, figures or an entire part of a familiar stock scene has been transferred en masse to a rendition of a second stock scene to which it is not normally related'.1325

Hence, transferred scenes sometimes play the role of fillers. Transference occurs regularly in the Theban processional scenes. An example can be observed in the tomb of Mery (TT 84), the scenes of which received transferred elements from the tomb of Rekhmire.1326 Transference is linked to the use of pattern books.1327

c) Artistic inspiration: The close imitation of objects, figures and entire scenes in the private Theban tombs shows a connection between the various renditions of the tribute scenes.1328 Overall, artistic relationship and coherence between the various scenes of foreigners' processions is directly connected to their date; and therefore, iconographic typology and tombs' dates should be examined together.

1324 The latter, about the overly busy processional scenes, was observed by the author when she saw the Aegean scenes in the tomb of Rekhmire (in three separate visits in 2010, 2012, 2013). Ironically, once the tombs were sealed, there was no intention for the tomb decoration to be seen by visitors. The main intention was for this decoration to be seen by the beholders of the spiritual world (Manniche 1987: 31, 52, 80).
1325 Wachsmann 1987: 11-12
1326 Wachsmann 1987: 12. The tomb of Mery (also tomb of Amunedjeh) dates to the reign of Amenhotep II.
1327 For a discussion of pattern-books used in Egyptian painting see Wachsmann 1987: 12-17; Manniche 1987: 14, 15, 56; Quack, forthcoming.
1328 See Wachsmann 1987: 12-40 where a number of artistic examples from the Theban tombs of the nobles is provided.
In the case of the processional scenes, including the ones depicting Aegeans, sources of artistic inspiration were the following:

1) Artists observed the iconography of earlier tombs before they painted their frescoes. Therefore, in their personal art, they copied what they had seen in earlier tombs; evidently by altering the original scene, based on the desire of their patron, the tools / raw materials they had at their disposal, their training and certainly, the spatial availability. The final result was a clearly indigenous creation. To the author's mind, with regard to the Aegean scenes, this is particularly true for the displays of the mature phase, i.e. the later tomb displays demonstrating this topic, and this hypothesis can, at least partly, explain hybridism.

2) The artists had seen the foreigners through their own eyes and sketched them via their experiential memory. This theory is connected to the presence of Aegeans in Egypt and the form this presence received.

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1329 Wachsmann 1987: 12-17. For example, in the tomb scene of Anen (TT 120, reign of Amenhotep III) a figure termed 'Keftiu' is made up of several elements gleaned from figures in the tombs that date to the reign of Hatshepsut-Thutmose III (i.e. from the tombs of Senenmut, Useramun and Rekhmire). This example is discussed in Wachsmann 1987: 26, 40.

1330 Wachsmann 1987: 13

1331 Vercoutter 1956: 197

1332 (tables 53, 54).

1333 The author comes to this conclusion considering that the later Aegean processional scenes are more 'hybridised' than the early ones (see this chapter: 'the scenes in space and time').

1334 Pritchard 1951: 40. It appears that Egypt in the reigns of Hatshepsut, Thutmose III and onwards was more multicultural than ever imagined. The presence of foreigners in Egypt during these times is discussed in Cline 1991; Panagiotopoulos 2006; Booth 2005.

1335 For the Aegean presence in Egypt see chapter Seven: 'On the razor's edge: Aegeans in Egypt and Egyptians in the Aegean'.
3) Moreover, Capart first introduced the theory of the 'cahiers de modeles' for the processional scenes.\textsuperscript{1336} Details (such as the patterns of the textiles / skirts that the porters were wearing) were not easily recalled; still, a copybook would re-vitalise the artists' memory. Vercoutter and Wachsmann later embraced Capart's opinion.\textsuperscript{1337}

With regard to artistic inspiration, the truth lies somewhere in between. In the author's opinion, a combination of all of the above may apply: The artists' vivid memories, the use of pattern books and the observation of foreigners visiting Egypt created a unique and original product.\textsuperscript{1338} modified in the course of time on the basis of historical and political circumstances. The chronological sequence of the scenes in the various private tombs highlights the use of multiple inspirational media for their construction.

\textbf{6.1.5 The Aegeans in the Theban tombs: Physical characteristics}

The physique of the Aegeans combines several distinct features.\textsuperscript{1339}

\textsuperscript{1336} Capart 1925: 272. 'cahiers de modeles': pattern books. The possibility that pattern books travelled and changed hands between artists in the EM has also been discussed in the previous chapter. See chapter Five: 'Aegean and Aegeanising frescoes outside the Aegean' and 'Who painted the Avaris frescoes and why were these frescoes painted? A cornucopia of ideas'. In Egyptian art, pattern books are discussed by Manniche 1987: 14,15, 67.

\textsuperscript{1337} Vercoutter 1956; Wachsmann 1987. Pattern books are discussed in Wachsmann 1987: 12-26. An example is also provided (Wachsmann 1987: 17-25): the scene of the bowyers' workshop in the tombs of Puimre (early Thutmose III), Mencheperreseneb (late Thutmose III) and Mery (Amenhotep II).

\textsuperscript{1338} This is because, as Panagiotopoulos has correctly pointed out (2011: 44), the encounter of foreigners (in this case Aegeans) and the visual memory of these people, generated not only cultural awareness, but also the artistic conceptualisation of transculturality. Similarly, this concept agrees with Zeki's results, according to which, artists 'see' and perceive the world, not with the eye, but with the cerebral cortex, and therefore, paint their work according to visual memory (Zeki 2014: 113).

\textsuperscript{1339} Details of these features, with examples, are provided on the spreadsheet (CD) with examples: sheet 'Aegean processional scenes'. See also (pictures 143-153).
a) First, the hue used to paint the skin of the Aegean men is a dark reddish-brownish colour.\textsuperscript{1340} This is the typical hue of the skin colour of males in Egyptian art.\textsuperscript{1341} For the skin colour of Egyptian women and of other foreigners, for example Syrians and Hittites, irrespective of sex, only a yellow hue is used. Conclusively, the hue was used by Egyptian artists to demonstrates age, sex and political / social status.\textsuperscript{1342}

b) Vercoutter and Wachsmann, contra Pinch Brock, argue that the Aegeans are clean shaven; and if bearded men are termed Keftiu, they are probably hybrids. On the contrary, Syrians are bearded as a rule.\textsuperscript{1343}

c) The Aegeans in profile are usually illustrated having a straight nose;\textsuperscript{1344} however, both aquiline as well as eagle-beaked noses are also portrayed.\textsuperscript{1345}

d) The typical Aegean hairstyles with curls and locks, of various lengths, differ from the

\textsuperscript{1340} Wachsmann 1987: 41. Notice that the same combination of dark red-brown hue for the skin colour of men and a lighter colour, in particular white, for the female forms was also used to differentiate sexes in the iconography of Minoan frescoes. For a few artistic examples from Crete and the Aegean see Preciozi and Hitchcock 1999: 123: fig. 77; 127: fig. 81; 166-171: figs 106-108. A comparison with the Avaris frescoes demonstrates exactly the same points (see chapter 'the Avaris frescoes') even though this particular artistic style and technique will not be discussed in this thesis at present, because of space limitations.

\textsuperscript{1341} (picture 185).

\textsuperscript{1342} Vercoutter 1956: 230, 236; Wachsmann 1987: 41.


\textsuperscript{1344} Furemark 1950: 225, n. 1 with examples.

\textsuperscript{1345} Vercoutter 1956: 237-238 with examples.
hairstyles used for other foreigners.

6.1.6 Aegeans in the Theban tombs: Clothing

Aegean porters wear two types of garment:

a) In some examples, such as the tombs of Senenmut, Useramun and the early phase of Rekhmire, the Aegeans are presented wearing a loincloth of the Minoan cutaway form and a broad belt around their waist. On the front, a quiver-like object hangs from the belt. The skirt is always sketched in profile, the loincloth drawn en face. These garments are remarkably similar to the ones worn by contemporary Minoans.

b) The Aegeans in the tomb of Mencheperreseneb and those in the later versions of the scenes in the tomb of Rekhmire wear richly embroidered kilts which fall to a point.

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1346 As Vercoutter has noticed, the hairstyles of the Aegeans in the Theban tombs are similar to traditional hairstyles as depicted in the artistic iconography of the Aegean. The Egyptian artists have faithfully rendered contemporary Aegean hairstyles (Vercoutter 1956: 233). For the hairstyles in the hybrid forms of the tomb of Amemose (TT 89) see Pinch Brock 2000: 133.

1347 See the spreadsheet on the CD, sheet 'Aegean processional scenes', and (pictures 134-153). For comparison of the garments of Aegean porters in the Theban tombs with garments from genuine Cretan, Cycladic and Mycenaean environments, a number of approaches have been made and a terminology of the phenomenon has been established by various researchers (Marinatos et al 1967; Sapouna-Sakellarak 1971; Barber 1992: esp. 311-357; and Rehak 1996, etc.). This topic will not be discussed in this thesis.

between the legs. Some researchers detected Egyptian and Syrian elements on these garments.\textsuperscript{1349} Davies wrote that any Egyptian patterns on the garments could be explained by the fact that the artists were not familiar with Aegean textiles.\textsuperscript{1350} Recent theories which demonstrate that the Aegeans exported textiles to Egypt, or that Aegean textile producers worked there, contradict this view.\textsuperscript{1351} After all, the Aegean textile tradition was also represented on the garments of the Aegeans in Avaris.\textsuperscript{1352} In any case, to the author's mind, Aegeans must have paid regular visits to Egypt.\textsuperscript{1353}

Sakelarakis discussed the similarities of these kilts with the ones worn by the 'Cup-bearer' and two other participants in the 'Procession Fresco' from Knossos, thus emphasising their Aegean features.\textsuperscript{1354} Vercoutter stated that the kilts of Aegeans in the tombs of Mencheperreseneb and Rekhkmire show a number of similarities, with the former copied from the latter.\textsuperscript{1355} Two of Rekhmire's Aegeans wear leopard or sheep skin garments.\textsuperscript{1356}

Davies first observed that the Aegeans in Rekhmire's tomb are depicted wearing the

\textsuperscript{1349} e.g. Kantor 1947: 44; Furumark 1950: 225.
\textsuperscript{1350} Davies 1943: 24
\textsuperscript{1352} As shown by Aslanidou 2012.
\textsuperscript{1353} Cline 1995b and Panagiotopoulos 2006 have also expressed a similar view and the author explains her views in this chapter: 'Aegean processional scenes in Thebes: Historical reality and authenticity' and in the following chapter.
\textsuperscript{1354} Sakellarakis 1979: 116-117, 123. In the Knossos example the garments are shown in profile, whereas at Thebes they are drawn frontally.
\textsuperscript{1355} Vercoutter 1956: 257 and pl. XIX-doc. 156 = 257-258 and pl. XIX-doc. 157; 261-262 and pl. XXI-doc. 162=263-264 and pl. XXI-doc. 164; 265 and pl. XXII-doc. 166=266-267 and pl. XXII-doc. 168. The quilts were copied in sequence with the artist reversing the direction of the porters.
same type of clothing as the ones in Senenmut and Useramun; however, these were later painted out and, in their place, the painters dressed them in kilts like those worn by the Aegeans in the tomb of Mencheperreseneb. Furthermore, early tombs depict Aegeans wearing breechcloths with codpieces and backflaps; whereas later tombs present them in kilts, similar to the ones worn by the men in the procession fresco from Knossos.

This conversion can be also seen in the early and late representations of Aegeans in the tomb of Rekhmire. A change in fashion as seen in the tomb of Rekhmire may demonstrate the shifting of power on Crete, from Minoans (wearing codpieces) to Mycenaeans (wearing kilts), sometime after Rekhmire became vizier and before Amenhotep's accession. MacGillivray, for instance, judging on the palimpsest of the Keftiu garments in the processional scenes in Thebes, sees Mycenaean Keftiu (Achaeans / Danaans) - established on Crete sometime between 1460 and 1440 BC - depicted in the late phase of the wall paintings in the tomb of Rekhmire and those in the tomb of Mencheperreseneb. Mycenaean gift-offering to Egypt is also reported in the

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1357 Davies N. de G. 1943: 25; Panagiotopoulo 2006: 393. A discussion of the palimpsest clothing in relation to the political situation on the island of Crete (Mycenaean takeover) can be read in Wachsmann 1987: 44-48. Panagiotopoulo (2000; 2001; 2006) does not focus on the palimpsest clothing as he argues that the garments of the Aegean porters do not demonstrate any historical reality. MacGillivray (2009) however, discusses this topic in detail, and he recreates a historical hypothesis for the Aegean visits to Egypt on the basis of this change of clothes. The phenomenon of 'updating' the clothing of foreigners is also seen in Syrians: see Pritchard 1951: 38-41.

1358 Rehak 1996: 36. Rehak 1996 examines the Aegean breechcloths and kilts in comparison with iconographic material from the Aegean. For the processional fresco at Knossos see Preciozi and Hitchcock 1999: 168-169, fig. 106. For the garments worn by the Aegeans in the tombs of Senenmut, Puimre, Intef, Useramun, Mencheperreseneb, Rekhmire, Amenemhab and Amenmose see (tables 53, 54) and the individual descriptions for each tomb in Wachsmann 1987 and Panagiotopoulo 2006.

1359 See Davies 1935; Wachsmann 1987: 35-37; Panagiotopoulo 2006: 393

1360 See the discussion in Wachsmann 1987: 44-48.

1361 MacGillivray 2009: 164-169. The chronological scheme used by MacGillivray is that provided in (table 16). MacGillivray's view will be discussed in greater detail in the following pages. See 'Aegean processional scenes in Thebes: Historical reality and Authenticity'.

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Annals. The present author has already examined this 'palimpsest' in correlation with fluid chronology.

Nevertheless, both breechcloths and kilts were worn on Crete from MM II, and neither costume is generally worn by early Mycenaeans, according to Rehak. Hence, in Rehak’s mind, the concept that codpieces equal Cretans and kilts equal Mycenaeans should be abandoned, since garments cannot be used as evidence about changes in the Aegean political system. Such garments cannot be a good indication of either chronology or ethnicity. Researchers may also wish to consider the possibility that 'the kilts may also identify islanders from the Cyclades or from Crete, not Mycenaeans', as stated by Rehak. Pinch Brock argues that the passing from codpieces to garments in the Aegean procession scenes demonstrates a change in perceived rank rather than a change in political situation. It has also been noticed that breechcloths with codpieces are linked to Minoan activities such as hunting, farming, bull-leaping and ritual performances and most representations of Mycenaeans wearing kilts are quite late (LH IIIB). These garments are not only an indication of ethnicity and cultural background, but also an indication of status, profession, age and wealth. Therefore,

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1362 Cline 1994: 114 (A32) with further references.  
1363 Chapter One: 'Analysis'.  
1364 Rehak 1996: 39; Panagiotopoulos 2006: 393 also states the same concept.  
1366 Especially is one considers the artistic phenomena of transference and hybridism, seen above: 'Artistic technique: The scenes 'through the eyes of the artist'. This idea is particularly emphasised in Panagiotopoulos 2001; 2006.  
1367 Rehak 1996: 51-52  
1368 Pinch Brock 2000: 130-131  
1369 Rehak 1996: 50-51  
1370 Rehak 1996: 35, 50-52. Duhoux 2003: 25. Similar is the case of the hue used for painting the skin of men and women in Egypt and the Aegean. See above: 'The Aegeans in the Theban tombs: Physical characteristics'. The same concept that garments equal origin, age, social status, profession, family,
another possible explanation for the change of garments in the Aegean processional scenes is that the passing from codpieces to kilts depicts a differentiation in the age or status of the Aegean delegates in Egypt.\textsuperscript{1371}

Interestingly, after considering Aslanidou's latest work,\textsuperscript{1372} the present author notices that some males in the processions in Avaris are kilted.\textsuperscript{1373} A detailed comparative study of the Aegean(-ising) garments between the Avarian and the Theban male processions might enlighten chronological issues, even though Aslanidou warns about hybridism in Avaris, similarly to Thebes.\textsuperscript{1374}

According to Smith, the change in the garments' fashion - as seen in the late scenes of Theban tombs - could be interpreted as the second visit of Aegean officials to Egypt - as opposed to the first visit, upon which the garments of Aegeans in the representations of the tombs of Senenmut, Useramun and the palimpsest figures in Rekhmire are based.\textsuperscript{1375} Rehak, who also favoured Smith's idea, added that the Aegeans must have visited Egypt once in the early eighteenth dynasty (perhaps in the reign of Hatshepsut) and once later,

\textsuperscript{1371} Rehak 1996: 51-52
\textsuperscript{1372} Aslanidou 2012: 312, 314.
\textsuperscript{1373} See the previews chapter and the spreadsheet: 'Avaris frescoes: human representations', where examples are provided. See also Von Rüden (forthcoming 1) for the 'Prince of the Lillies' from Avaris.
\textsuperscript{1374} It is worth mentioning that up to now, no major study has comparatively studied the Aegean processions in Thebes together with the male processions in Avaris. The only exception is the conclusive paragraph of Aslanidou (2012: 315) in which the author attempts to connect the garments in Avaris and those of the Aegeans in the tomb of Mencheperreseneb via hybridism. Such a major study is required in the field.
\textsuperscript{1375} Smith 1965: 85
at the time when the tomb of vizier Rekhmire was still being prepared.\textsuperscript{1376} MacGillivray can also see numerous Aegean visits to Egypt.\textsuperscript{1377} These will be discussed again at the end of the chapter.

### 6.1.7 Aegeans in the Theban tombs: Wares

Of particular interest to researchers of A-E interactions is the examination of the wares portrayed with the Aegeans in the relevant Theban tomb scenes. The iconography, origin, historical and archaeological value of these objects should be examined under consideration of the role that hybridism, transference and artistic pattern books played in Egyptian art.\textsuperscript{1378} The in-depth study of every single Aegean object portrayed on Theban scenes is beyond the scope of the present study. However, an overview of some of these objects can be seen on the spreadsheet.\textsuperscript{1379}

Overall, items born by the Aegeans include raw materials such as copper and tin ingots, silver, lapis lazuli, ivory tusks, and exotic artefacts such as bull-head, jackal-head, lion-head and griffin-head rhyta, bowls and pithoid amorphas, vases with zoomorphic attachments, cups of the Vapheio type, leather bags, swords, necklaces etc. Some of

\textsuperscript{1376} Rehak 1996: 50-51
\textsuperscript{1377} MacGillivray 2009: 164-168. MacGillivray’s work focuses on the historical reality of the Aegean processional scenes; therefore MacGillivray uses the palimpsest of garments to demonstrate that the Aegean delegates illustrated in the scenes of the early tombs were Minoans, whereas the scenes of later tombs illustrate Mycenaeans. See below: ‘Aegean processional scenes in Thebes: Historical reality and Authenticity’.
\textsuperscript{1378} For hybridism, transference and pattern books see above: ‘the scenes through the eyes of the artist’.
\textsuperscript{1379} The information on the spreadsheet (sheet ‘Aegean processional scenes’) on the CD, is given for reference purposes only and it is not a complete catalogue of these scenes.
these artefacts show a magnificent resemblance to actual Minoan objects.\textsuperscript{1380} Other items are foreign. The last may be due to transference and hybridism. Nevertheless, it is not unlikely that porters did offer to Egypt items of another origin than their own country, as in the case of text \{19\}. Therefore any foreign object held in Aegean hands should not be labelled as a result of transference and hybridism.

Aegean objects portrayed in the Theban frescoes are not commercial products in the sense of today's merchandising items.\textsuperscript{1381} Their function was diplomatic.\textsuperscript{1382} Wachsmann first noticed that objects which appeared rarely in the archaeological records in the Aegean were less likely to constitute a major category of export from the Aegean to Egypt. Nonetheless, such objects were shipped abroad in minor quantities or as elite presents.\textsuperscript{1383} To the present author, the comparison of the depicted objects with actual items unearthed in the Aegean does not always provide 'secure' chronological links for several reasons: a) objects found on Aegean sites, when iconographically paralleled in Theban paintings, may be antiques in their archaeological context, or they may have

\textsuperscript{1380} A, more detailed, overview of the wares that the Aegeans carry can be seen in Wachsmann 1987: 49-77. For the Aegean wares see also: Rehak 1998: 45-48; Pinch Brock 2000: 134-136 (tomb of Amenmose TT 89 only), Panagiotopoulos 2006: 392-394 and the spreadsheet. Only five scenes of Aegean tribute are provided as examples on the CD: those of Senenmut, Useramun, Mencheperreseneb, Rekhmire and partly of Amenmose. Puimre's Aegean tribute scene does not contain any objects whereas Intef's scene is so badly damaged that insufficient detail can be seen for research purposes.

\textsuperscript{1381} The items are not of mercantile and fiscal significance. To better understand the role of these objects and their porters in the scenes of Theban tombs one should consider the actual scenes themselves, along with the process of gift-exchange. See this chapter 'The inw' and 'Aegean processional scenes in Thebes: Historical reality and Authenticity'.

\textsuperscript{1382} The items demonstrate the diplomatic gift-exchange irrespective of taxes and trade, as discussed with the economic principles in (table 27)

\textsuperscript{1383} Wachsmann 1987: 49-50. It is possible that such commodities were likely to have been shipped in minor quantities as elements of sporadic trade.
come from disturbed, or erroneously recorded, archaeological deposits;\(^{1384}\) b) objects portrayed in the processional scenes in Thebes may also be antiques.\(^{1385}\) Moreover, if one accepts the theory of circulating pattern books; and if these copybooks were not regularly updated, then, depicted items could be older than the date in which scenes were sketched; c) the originality of these objects may have been distorted by hybridism and transference; d) some of these items may be figments of the artist's imagination;\(^{1386}\) and e) the pattern of distribution of similar actual items in both the Aegean and Egypt (via their archaeological discovery) should also be considered, in relation to the various chronological schemes suggested by researchers.\(^{1387}\) However, the illustrated objects in the Aegean processional scenes in Thebes do demonstrate some of the most characteristic artistic trends in Bronze Age Aegean.\(^{1388}\) Moreover, it is noteworthy that the Aegean wares are depicted in proportionate scale; therefore, it is assumed that the Egyptian artists had seen these items in real life.\(^{1389}\)

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1384 [§ disturbed archaeological deposit].
1385 [§ antique]. There is no rule prohibiting antiques of high value being offered to foreign leaders and therefore antique objects could be depicted in the scenes by Egyptian artists. Also, to return to the discussion of pattern books, if these pattern books were not properly updated, then the objects shown could be older than the era during which these scenes were sketched.
1386 The comparison of the painted wares with archaeological material from excavations can demonstrate the authenticity and source of inspiration of these items.
1387 For chronology see chapter One.
1388 For example the bull-head rhyta in the scenes of Useramun and Mencheperreseneb (see Wachsmann 1987: 56) are also found on Crete. For example, see the stone (chlorate) bull's head rhyton from the west wing hall of the Palace of Kato Zakros (Neo-palatial) in Preciozi and Hitchcock 1999: 108, fig. 66.
6.2 The raison d'être of the Aegean processional scenes in Thebes

6.2.1 Texts accompanying the scenes

The terms Keftiu and the Isles in the Midst of the Great Green have been examined in Chapter Four, along with a number of Egyptian texts in which these terms are cited. Chapter Six presents a few more Egyptian inscriptions mentioning the Keftiu and the Islands. However, these inscriptions are presented separately as they accompany the Aegean processional scenes in Thebes.

- An inscription accompanying the Aegean porters in the tomb of Rekhmire, vizier of Thutmose III {14}, states that Rekhmire receives the tribute / gift (ınw) of the lands of Punt, Retenu and Keftiu. {1392}

- A second inscription {15} from the same tomb states that the Keftiu chiefs and the chiefs of the Islands in the Midst of the Great Green arrive peacefully, bringing products to the Egyptian Court. The text states that the Aegeans have heard about Thutmose III's victories and they seek the Pharaoh's protection. {1393}

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1390 See chapter Four: 'Terminology'.
1391 As before, the numbers in curly \{number\} brackets refer to the translation of the text entry on the spreadsheet (sheet 'texts'). There the author provides the texts' translation, and further references.
1392 See the following pages for ınw.
1393 For a number of translations and an interpretation, see Duhoux 2003: 27, 164-170, and, in particular, 167; Panagiotopoulos 2006: 398. Also, Duhoux 2008: 21-23 briefly re-discusses this text.
• Similarly, in the tomb of Mencheperreseneb, priest of Amun in the service of Thutmose III, the phrase “Chief of Keftiu” is listed in an inscription accompanying a processional scene, on register I {16}. Again, the Pharaoh is presented as the divine ruler of the world.\textsuperscript{1394}

• A processional scene in the tomb of Amenemhab (in the service of Thutmose III and Amenhotep II) is accompanied by an inscription {17} which also reflects the supreme might of the Pharaoh over the then-known world. The chiefs of Upper Retenu, Lower Retenu, Keftiu, Mennus and other lands give praise to the Egyptian monarch.\textsuperscript{1395}

• Moreover, an inscription accompanying the processional displays in the tomb of Useramun, in the service of early Thutmose III {18}, moves on similar grounds, this time mentioning that the Isles in the Midst of the Sea offer their wares to the Egyptian court. On the basis of this text, and the accompanying scene, Duhoux and MacGillivray suggest that in the tomb of Useramun, the Keftiu appear coming from the Great Green, which, to these researchers, at that time (i.e. in the reign of Thutmose III) is placed in the Delta.\textsuperscript{1396}

\textsuperscript{1394} Notice the similarities of the phraseology between this text and the inscriptions in {14}, {15} from the tomb of Rekhmire. See Duhoux 2008: 21-23 for a brief discussion of the text.
\textsuperscript{1395} The scene and parts of the inscription are most probably copied from an earlier tomb (Wachsmann 1987: 33-35; Cline 1994: 110 [A.16]).
\textsuperscript{1396} (table 53). According to Duhoux (2003: 119-133, 135-144, 182-187, 198-199) and MacGillivray (2009: 165) the text suggests that the Aegeans were coming from the Delta. See also Chapter Four: 'Terminology' for the definition of the Great Green' by Duhoux.
• In the Tomb of Kenamun (TT 93), in the services of Amenhotep II, the name 'Keftiu' is mentioned in a list of place names, following the 'Nine Bows' (the traditional enemies of Egypt) and accompanying a processional scene \{21\}.\(^{1397}\)

• Similarly, in the tomb of Anen, in the service of Amenhotep II, 'Keftiu' is mentioned in a list of places accompanying a processional scene \{22\}.\(^{1398}\)

The thesis has already underlined the importance of the term \(\text{\textit{inw}}\) in previous paragraphs. To this, the author should add the following discussion.

\(^{1397}\) See Vercoutter 1956: 7175 [12]; Strange 1980: 54-55 [19]; Wachsmann 1987: 38-40; Cline 1994: 111 [A.18]. The text is considered by Strange as 'conventional, and of no value to this study' (1980: 55). Cline states that the scene and inscription is copied from an earlier tomb (1994: 111). For the 'Nine Bows' \((\text{\textit{psg}}.t-p\text{\textit{g}}t / \text{\textit{psg}}.\text{\textit{wt-psg}}.t = \text{various foreigners which were the enemies of Egypt; these changed depending on the era}})\) see Valbelle 1990.

\(^{1398}\) Similarly to the previously mentioned text, the inscription appears conventional to Strange (1980:56). The 'Nine Bows' are also mentioned in this inscription, as indicated by Vercoutter. See Vercoutter 1956: 79-82 [15]; Strange 1980: 55-56 [20]; Cline 1994: 111 [A.20]; Wachsmann 1987: 40.
6.2.2 The *ınw*

Inscriptions from the tomb of Rekhmire {14} {15} proclaim that the chiefs of the Keftiu and the Islands in the Midst of the Sea are *ınw* bearers who had heard of the Pharaoh's great might.¹³⁹⁹

The reference to *ınw* in inscriptions accompanying the procession scenes does not always equal tribute brought to the victorious king.¹⁴⁰⁰ Evidently, this word has a multiple meaning. The same term is used in the texts to describe yearly obligations to the temple of Amun, or the Pharaoh's donations to this institution.¹⁴⁰¹ The term is also associated with the Egyptian aspect of kingship since *ınw* was the king's personal property and a royal privy-purse.¹⁴⁰² In the New Kingdom, *ınw* is connected with the revenue economy, *tribute*. Vercoutter (1956: 131, 133) suggested that *ınw* should be translated as 'tribute'. Bleiberg (1996: 98) states that *ınw* contributions often took place after military expeditions; however the act of the Pharaoh or his high official collecting goods was rather an indication of a return to normal relations at the end of a war. Bleiberg's hypothesis, according to Panagiotopoulos (2001: 271) is correct only when the *ınw* porters belonged to nations subjugated by the Egyptians. In the relevant iconography, ceremonial scenes - usually depicted in the typical scenes of gift-giving to the Egyptian Pharaoh - are missing. Panagiotopoulos (2006: 170) has also argued that when the word *ınw* refers to foreign goods, it is not consciously used as a strictly defined technical term but it changes meaning according to circumstances; depending on whether the porters belong to an independent or subjugated nation. See also Cline 1995: 147.

¹³⁹⁹ The term is transliterated as *ınw* or *inw* in bibliography (Wb 1, 91.12-18). It is translated as 'gift' by Gardiner 1947: 127. Bleiberg (1996) and Haring (1997) have also thoroughly examined the meaning of this word. Duhoux studied this term in 2003: 16-27, 37, 59, 61, 106, 161-164 (translation of *ınw*), 65-208, 226-231, 257-259. The term is also partly discussed in Panagiotopoulos 2001: 269-276; 2006: 372-376, 401-402; 404. For the use of *ınw* and its significance see also Warburton 1997: 221-236.

¹⁴⁰⁰ [§ revenue economy, § tribute]. Vercoutter (1956: 131, 133) suggested that *ınw* should be translated as 'tribute'. Bleiberg (1996: 98) states that *ınw* contributions often took place after military expeditions; however the act of the Pharaoh or his high official collecting goods was rather an indication of a return to normal relations at the end of a war. Bleiberg's hypothesis, according to Panagiotopoulos (2001: 271) is correct only when the *ınw* porters belonged to nations subjugated by the Egyptians. In the relevant iconography, ceremonial scenes - usually depicted in the typical scenes of gift-giving to the Egyptian Pharaoh - are missing. Panagiotopoulos (2006: 170) has also argued that when the word *ınw* refers to foreign goods, it is not consciously used as a strictly defined technical term but it changes meaning according to circumstances; depending on whether the porters belong to an independent or subjugated nation. See also Cline 1995: 147.

¹⁴⁰¹ Bleiberg 1996: 100-101; Panagiotopoulos 2006: 387

¹⁴⁰² Bleiberg 1996: 91-92. Therefore *ınw* covered part of the economic interests of the Egyptian administration (table 33). The term is also associated with Egypt's imperialistic view (Panagiotopoulos 2006: 401-402). See [§ imperialism].
palatial environment; it is also donated to temples and the king can reward his employees with it.\footnote{Bleiberg 1996: 100-103} In both the processional scenes in Thebes and in Thutmose’s Annals, depending on the political state of the nation of the īnḫ bearers, īnḫ may signify greeting gifts exchanged between foreign lands and the Egyptian Pharaoh with the object of establishing or cementing a military / commercial / economic agreement.\footnote{Panagiotopoulos 2006: 4-4-405} Gift giving and īnḫ is also strongly related to the appeal of the exotic.\footnote{Panagiotopoulos 2001; 2006. In this case the term is unrelated to taxes which were collected from subject states abroad (Panagiotopoulos 2001; 2006).} The literal translation of īnḫ is 'that which is brought' and occasionally the word seems to have a specific connotation as gift rather than tribute.\footnote{Bleiberg 1996: 100-103. The term comes from the verb ḫn = to bring, to fetch: \texttt{R} (Wb 1, 90.2-91.10) and grammatically it is a perfective past participle (= that which is brought).} If fact, in the case of the Theban wall-paintings, īnḫ can equal 'diplomatic gift' - but not always.\footnote{Panagiotopoulos suggested (2006: 172) that as the Egyptian language has no other term for gift, or diplomatic gift, then īnḫ equals the Akkadian term sulmanu (greeting gift) cited in the Amarna Letters (see Liverani 1990; Moran 1992, e.g. EA 4, EA 7; Albright 1971, 2003; Tarawneh 2010). For the discussion of an example of sulmanu from the king of Egypt to the king of Babylon see Cline 1995: 143. The Akkadian sulmanu equals diplomatic gifts exchanged between the rulers in periods of peace / or to establish peace. It should not surprise the reader that the root of the word slm can be traced in the modern Arabic word and greeting 'salam' = peace.}

In the reign of Thutmose III - and according to Thutmose’s Annals and the processional scenes - independent nations used to send exotic gifts to Egypt. These were mentioned in the texts as īnḫ. Retenu (a large part of the Syrian territory), which was under Egyptian control, would send compulsory gifts, also called īnḫ, to the Egyptian monarch, while delivering, at the same time, a proportion of its harvest as tax (ššt). The contributions of the areas called Remenen (Lebanon?) and Djahy (Palestine?) were
obligatory; Remenen provided a share of its production and Djahy a share of its harvest as tax (šmw). Nubia also used to send products to Egypt on an annual basis.¹⁴⁰⁸

However, what were the obligations of the Aegeans towards the Egyptian Pharaoh?

The inscriptions never indicated that the Keftiu were politically dependent on Egypt and obliged to offer any tribute to the Pharaoh in the form of taxation or otherwise. On the contrary, the inscription at Rekhmire's tomb {15} indicates that the Aegeans had heard (v. sḏm is used) of the Pharaoh's achievements and they were, or wished to be hr mw n ḫm.f, i.e. 'upon the water of' His Majesty (Thutmose III); an expression that possibly implies a political, social or even economic form of relationship.¹⁴⁰⁹ The foreign emissaries' kneeling or prostrating in front of the Pharaoh is part of the specific ceremonial that the artist probably wished to depict. It is, according to Panagiotopoulos, not a display of characteristic egocentric superiority and it does not necessarily imply a status of political subjugation or control.¹⁴¹⁰

Moreover, as reported by Panagiotopoulos, the translation of ūnw as gifts is encouraged by the representation of precious items and objects of exotic character ceremonially

¹⁴⁰⁸ See above, notes 1266, 1267, 1265 and Panagiotopoulos 2006: 373-375. For the contributions of foreigners to the Egyptian 'state' researchers also retrieve information from the Amarna Letters. The Amarna correspondence demonstrates the movement of goods (Holmes 1975; Moran 1992; Albright 1971; 2003; Cohen and Westbrook 2000; Tarawneh 2010: 143-149 with examples).

¹⁴⁰⁹ Panagiotopoulos 2001: 271; 2006: 397. In other words the Aegean chiefs (wrw) offered gifts to the Egyptian court - and no tax. The expression ḫnhr mw = 'to be on (someone's) water' (Wb 2, 52.17-18) demonstrates loyalty towards the Egyptian monarch and - possibly - a diplomatic agreement with him. The use of this impression demonstrates that the Aegeans were aware of how powerful and victorious Egypt was. Moreover, the Egyptian authority is also exhibited in this phrase.

¹⁴¹⁰ Panagiotopoulos 2001: 272; 2006: 389. Note that the word 'superiority' is used by Panagiotopoulos in this case.
brought by both dependent and independent foreigners.\textsuperscript{1411} Besides this iconographic hint, according to the Amarna letters and other written sources of the eighteenth dynasty, there was no such thing as a punitive political enactment or a sign of submission, other than the collection of taxes from dependencies. This taxation was considered by the Egyptian ruler as a fiscal measure and not as a political measure, and the only way for foreign kings to show their formal act of submission and loyalty to the Pharaoh was via gifts offered to the Egyptian 'state' in special ceremonies.\textsuperscript{1412} Similarly, as read in the Amarna letters, political and diplomatic relations between foreign independent countries and Egypt were always based on an alliance, treaty or 'brotherhood' and the fulfilment of this agreement was the exchange of luxurious exotic gifts with a personal character and a strong symbolic nature.\textsuperscript{1413} Indeed, the Amarna letters refer to goods 'traded' between Egypt, Babylon, Assyria, Cyprus and other regions, but this trade partnership is disguised as reciprocal gift-giving between 'brothers' or 'fathers' and 'sons', and therefore, it is an act reflecting social hierarchy and personal relations among leaders.\textsuperscript{1414} Diplomatic gifts of foreign sources, recorded in the Annals of Thutmose III, for example, included precious raw materials (metals, semiprecious stones, etc), vessels of fine quality, even horses and other live animals.\textsuperscript{1415}

\textsuperscript{1411} The gifts consisted of prestige items with a personal character and a strong symbolic nature (Panagiotopoulos 2006: 396). For luxury items carried by the Aegean porters see Wachsmann 1987: 49-77; Rehak 1998: 45-48; Pinch Brock 2000: 134-136 (tomb of Amenmose TT 89 only).


\textsuperscript{1413} Panagiotopoulos 2001: 271, 273. 'Brotherhood' (\textsuperscript{=} agreement, alliance, diplomatic friendship) is discussed in Cline 1995a. The aspect of 'brotherhood' is demonstrated in the exchange of ceremonial greeting gifts which establish or cement an agreement (Panagiotopoulos 2006: 396).

\textsuperscript{1414} Bleiberg 1996: 98; Cline 1995: 143, 144; Panagiotopoulos 2006: 396-398. For a few literary examples demonstrating 'brotherhood' in the sense of agreement, loyalty and respect, see Cline 1995a: 143-145. See also Holmes 1975; Moran 1992; Albright 1971; 2003; Cohen and Westbrook 2000; Tarawneh 2010 for the Amarna correspondence.

\textsuperscript{1415} Panagiotopoulos 2006: 172. See also economic principles (\textbf{table 27}).
The demand for these luxurious exotic objects and materials can also be detected in the motives of military expeditions undertaken by Hatshepsut and Thutmose III in Punt and Syria-Palestine in order to collect substantial amounts of booty.\footnote{See Bryan 2003: 228-241. Also Hikade 2001.}

Even in this case, when booty from dependent countries was collected, this took the form of ceremonial gifts - as read in the Annals of Thutmose III and seen in the processional scenes in the tomb of Rekhmire, Mencheperreseneb and elsewhere.\footnote{Panagiotopoulos 2006: 387. For the processional scenes of Rekhmire and Mencheperreseneb see Panagiotopoulos 2006: 381-383. Subjugation to Egypt is demonstrated with ceremonial offerings. Additionally, the rulers of foreign nations / enemies of Egypt, sent their children and brothers to Egypt as a guarantee of their loyalty (Redford 1992: 178, 198). The cultivation of obedience to Egypt is also discussed in Panagiotopoulos 2006: 399-400.}

Therefore, on the question why these gifts were offered to the Pharaoh or his high-officials by the Aegeans one should bear in mind the existing diplomatic ethos of the era. Gift-giving was an annual procedure which formed part of a 'trade' partnership.\footnote{Panagiotopoulos 2006: 387. Trade here takes the meaning of exchange.}

That is because, according to this ethos of diplomatic gift-giving, when valuable objects were offered as 'presents' to the Pharaoh, the sender of the gifts was expected to receive counter-gifts of equal value.\footnote{Panagiotopoulos 2001: 274, 276; 2006: 399; Bleiberg 1996: 99. The Annals mention that a Syrian-Palestinian princess was sent to the Egyptian king together with thirty slaves; in this case, the Egyptian monarch was required to reciprocate with generosity; another case is described in a letter from Amarna, where the Egyptian king orders the ruler of Ammia to send his daughter and gifts to Egypt (see Panagiotopoulos 2000a: 145; 2006: 399; Moran 1992: EA 99:40). In essence, as Panagiotopoulos states (2006: 399), at least in the second case (EA 99) the princess was sent as part of tribute, and her father did not expect anything back.}

The reciprocal offering could even take the form of political / military protection; an economic agreement or a favour; or even a diplomatic marriage, as princesses were also 'products' of gift-exchange.\footnote{Panagiotopoulos 2001: 269; 273-276; 2006: 396-397, 401-402. Reciprocal economy is thoroughly discussed in Mauss 1966. See (table 27).}

Surely, when a present

\footnote{Panagiotopoulos 2000a: 145; 2006: 399; Moran 1992: EA 99:40. In essence, as Panagiotopoulos states (2006: 399), at least in the second case (EA 99) the princess was sent as part of tribute, and her father did not expect anything back.}
came from a subjugated nation, the king would not be obliged to reciprocate.\footnote{1421}{The Pharaoh could demand gifts or tribute without being obliged to reciprocate (Panagiotopoulos 2006: 387, 399).}

As Sahllins has noticed, in times of crisis, the practice of negative reciprocity increases.\footnote{1422}{Sahlins 1972: 214. See also \cite{reciprocal economy} for a definition of negative reciprocity.}

Panagiotopoulos, to avoid misunderstanding the interpretation of the term 'trade partnership', stated that the act of diplomatic ceremonal gift-exchange must be differentiated from the practice of business-type royal trade.\footnote{1423}{Panagiotopoulos 2001: 277. However, Panagiotopoulos (2001: 277) notices that in texts, such as the Amarna documents, ceremonial and royal commercial exchange belonged to two different spheres, and as evidence of this he provided a letter from the ruler of Alasiya (Cyprus) to the Pharaoh, which seems to exhibit a case of royal trade: 'I herewith send you 500 (shekels) of copper. As my brother's greeting gift I sent it to you' (Moran 1992: EA 35: 10-11) and a second letter to the king of Egypt by the same ruler: 'Moreover, my brother, men of my country keep speaking with me about my timber that the king of Egypt receives from me. My brother, give me the payment due' (Moran 1992: EA 35: 27-29) (complains to the Pharaoh as the ruler of Alasiya has not received his counter-gifts yet).}

Bleiberg also maintained that ceremonial gift-exchange cannot be mistaken for trade, since the purpose of the first is personal and social, whereas trade does not encompass any social commitment.\footnote{1424}{Inw \ldots was neither trade not tribute but rather represented an official gift exchanged between the king and a variety of other people, both Egyptian and foreign (Bleiberg 1996: 114)}

Nonetheless, as reported by Bleiberg, in the case of the \emph{inw}, the line between social and political relationships is not clearly defined.\footnote{1425}{Bleiberg 1996: 97}

Last, as the author will show, in GT terms, the \emph{inw} functions as a game strategy.\footnote{1426}{See the end of this chapter: 'Re-evaluating the Aegean processional scenes in Thebes through Game Theory and the World Systems approach'.}

In fact, reciprocity itself is a well-studied game strategy.\footnote{1427}{See e.g. Berg et al. 1995; Charness and Rabin 2002.}
6.2.3 What the Aegean processional scenes in Thebes tell researchers about the Aegeans

After the interpretation of the term *inw* and the investigation of the *mondus operandi* of the reciprocal economy in the Late Bronze Age EM, it is tempting to take this discussion a step further and apply these data specifically to A-E relations as seen in the wall-paintings in Theban tombs. The conclusions derived from the texts\textsuperscript{1428} combined with the relevant Theban tomb iconography\textsuperscript{1429} are the following:

1) The Egyptians were aware of the Keftiu rulers and the Egyptian and Aegean administration was in contact, exchanging gifts in a business-type / diplomatic / ceremonial manner.\textsuperscript{1430}

2) The Aegeans were not paying tribute to the Pharaoh. Aegean-Egyptian relations were normally peaceful and harmonious.\textsuperscript{1431}

3) The Aegeans had heard of the achievements of the Egyptian Pharaohs such as Thutmose III.\textsuperscript{1432}

\textsuperscript{1428} see above 'Texts accompanying the scenes' and \textsuperscript{14-18}.

\textsuperscript{1429} (table 54).

\textsuperscript{1430} See \textsuperscript{14-18} and the iconography of the tomb of Rekhmire in Wachsmann 1987: 35-37; Panagiotopoulos 2006: 382-383.

\textsuperscript{1431} See texts \textsuperscript{14}, \textsuperscript{15} and the iconography of the Aegean processional scenes in the tomb of Rekhmire in Wachsmann 1987: 35-37; Panagiotopoulos 2006: 382-383. MacGillivray (2009) suggests a historical hypothesis according to which the A-E relations were not always smooth and demonstrated 'zenith and nadir' periods of time, depending on the political situation on Crete. His evidence is based on a number of texts. For a discussion of the latter, see 'Aegean processional scenes in Thebes: Historical reality and authenticity' in this chapter.

\textsuperscript{1432} See texts \textsuperscript{15} and \textsuperscript{17} and the iconography of the relevant tombs (tomb of Rekhmire: Wachsmann 1987: 35-37; Panagiotopoulos 2006: 382-383; tomb of Amenemhab: Wachsmann 1987: 37-38; Panagiotopoulos 2006: 383-384).
4) They were also aware of the power of the Egyptian kings and, after offering high-value gifts to them, they awaited reciprocal gifts or favours.\textsuperscript{1433}

5) Also, as Panagiotopoulos correctly pointed out, 'the Aegeans appear as equal members of the international diplomatic community in the Near East, a community which used greeting gifts as a kind of a common symbolic currency to cement and advance both political and economic relations'.\textsuperscript{1434} This also applies to A-E relations, but whether the Egyptian king would consider the Aegean ruler/s equal or not remains problematic.\textsuperscript{1435} Panagiotopoulos adds that for the Egyptians - who were brainwashed about their power and control over other peoples (especially through pictorial art) - it would be unacceptable to present independent nations as equals before the Egyptian monarch; that is why they consciously lowered the Aegeans' status and depicted them along with subjugated countries in the procession scenes.\textsuperscript{1436}

6) The Egyptian king never considered the Aegeans as his subjects. On the contrary, the inscriptions accompanying the procession scenes denote that the Pharaoh's victorious achievements were acknowledged throughout the known

\textsuperscript{1433} See text \{14-17\} and the iconography of the relevant tomb and the scenes in Wachsmann 1987: 35-37; Panagiotopoulos 2006: 382-383. The reciprocal gifts or favours that the Aegeans might expect to receive by the Egyptian rulers will be discussed at the end of this chapter. See this chapter: 'Aegean processional scenes in Thebes: Historical reality and Authenticity'.
\textsuperscript{1434} Panagiotopoulos 2001: 275
\textsuperscript{1435} For instance, it is suggested by Bleiberg (1996: 96) that the bows of the bearers in front of the king or the nobles are typically part of the ceremonial protocol.
\textsuperscript{1436} Panagiotopoulos 2006: 396 contra MacGillivray 2009 (see note 1431). See e.g. texts \{15\}, \{17\}. Nevertheless, there must have been ceremonies in which both subjugated and independent nations participated in offering gifts; and, to the author's mind, this is probably a better explanation of why the Aegeans are depicted with subjugated individuals.
world to the point that gifts were offered to him.1437

7) The author agrees with Pinch Brock that the hybrid Aegean figures are problematic. Aegean - Syrian hybrids may be Aegeans who became trading partners with Syria or simply settlers or colonists and members of a diaspora.1438 This is a very challenging hypothesis as it demonstrates that Aegean colonists from areas such as Syria might have also been in contact with Egypt. Davies, Vercoutter and Pinch Brock have suggested that the Aegeans served as intermediaries with the Syrians in their trade with Egypt on a route that included, among other routes, Cyprus and Crete.1439 However, to the author's mind, with respect to the Minoan / Aegean foreign relations, the terms 'colonisation' and 'colonialism' should be used carefully and with moderation.1440

8) The Aegeans had visited Egypt numerous times and participated in state ceremonials. Judging from the location where the 'tribute' took place,1441 they must have been present in the Egyptian royal court and in the temple of Amun.1442

1437 See [14-17]; Bleiberg 1996: 114
1438 As suggested by Pinch Brock 2000: 137 who discusses the Aegean - Syrian hybrids in the tomb of Amenmose (TT 89).
1440 See chapter Seven: 'On the razor's edge: Aegeans in Egypt and Egyptians in the Aegean': '5) Aspects of colonialism and colonisation'. See also [§ diaspora, § colonialism, § colonisation] for how the present author understands the terms.
1441 (table 54).
1442 The locations where the Aegeans have been, i.e. the interpretation of the 'background' of the ceremonial scenes via text and iconography, are of historical importance, as they demonstrate a special relationship with the Egyptian state. A number of historical and cultural questions are raised. For example: Why did the Aegeans participate in the gift-giving ceremonial in the temple of Amun, as seen in the scenes in the tombs of Puimre? Was there a special cult / religious relationship that urged them to participate in this ceremonial? See below, this chapter: 'Aegean processional scenes in Thebes: Historical reality and Authenticity'.

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9) The Aegeans who visited Egypt were of high social status.

10) Keftiu and the Islands in the Midst of the Great Green either appear to associate with each other or they are seen as separate entities.

6.3 Aegean processional scenes in Thebes: Historical reality and authenticity

The subject of the Aegeans in the Theban tombs has been widely investigated artistically and archaeologically. On the contrary, the historical reality and authenticity of the scenes has received relatively limited attention.

The originality and authenticity of both scenes and texts demonstrates official visits of foreign chiefs to the Egyptian court, in order to offer prestige items to the state. Panagiotopoulos reports that the scenes 'reflect, rather than distort historical reality'.

Historical authenticity can be seen in the following points:

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1443 Judging from their elaborate hairstyles, tattoos, jewellery, paint trademarks on their faces, garments and wares (Wachsmann 1987; Panagiotopoulos 2001; 2006). Other Aegeans, not necessarily noblemen, (e.g. artisans) also visited Egypt as it was demonstrated in chapter Five.

1444 e.g. texts {14} (association), {18} (separate entity).

1445 As Panagiotopoulos stated (2001: 264-265): '...it becomes evident that while iconographical matters attracted all the scholarly attention, historical issues did not receive adequate treatment...Historical reconstruction on the contrary, seems to have halted at the level of early impressions, failing to take into account improvements in our understanding of the Egyptian sources, and to some extent improvements in historical methods...'. Recent studies on the authenticity and historical reality of the processional scenes of Aegeans in Thebes are published during this century: the works of Panagiotopoulos (2001) (historical reality and authenticity); Duhoux (2003) (the Minoans in Egypt?) and MacGillivray (2009) (historical reality of the scenes in relation to chronology).

1446 Panagiotopoulos 2001: 275
a) According to epigraphical and iconographic evidence, the Annals of Thutmose III and the processional scenes in the Theban tombs, in the reign of Thutmose III and Amenhotep II, the number of foreigners in Egypt rapidly increased.\textsuperscript{1447} As stated by Panagiotopoulos:

'With a hitherto unknown intensity people from abroad began to live and work among and impinge on Egyptians. Princes and princesses, ambassadors, soldiers and mercenaries, and prisoners of war and slaves, to whom a wide range of vocations were given, infiltrated different levels of Egyptian society, bringing with them a wide array of their own products, ideas and beliefs.'\textsuperscript{1448}

The processional scenes highlight exactly this multiculturalism and the plethora of foreign elements in the court circles in Egypt.\textsuperscript{1449} It now appears that, from the time of Hatshepsut onwards, Egypt was a lot more multicultural - and open to foreign elements - than twentieth century researchers could ever imagine.\textsuperscript{1450}

b) The term 'authenticity' qualifies the raison d'\'être of the scenes and the purpose these served: as seen before, the scenes of procession were not figments of artistic imagination but were based on real historical events and portrayed actual ceremonies

\textsuperscript{1447} As reported by Panagiotopoulos (2006). This is partly because of the international policy and foreign affairs of this ruler which generated population mobility (from Egypt to foreign lands and from there to Egypt). For foreigners in Egypt in the reign of Thutmose III see Panagiotopoulos 2006; Booth 2005.

\textsuperscript{1448} Panagiotopoulos 2006: 371

\textsuperscript{1449} [§ multiculturalism]. Syro-Palestinians, Nubians, Aegeans, Puntites, Hittites, Mitanni, Lybians, etc. For the processional scenes and the nationalities of the porters see the beginning of the chapter. The reason why no Cypriots are depicted in these scenes remains a mystery, which needs to be investigated further in the future.

\textsuperscript{1450} The Egyptian art of this chronological period demonstrates exactly this multiculturalism of people and the cornucopia of indigenous and alien ideas; not only with the depiction of foreigners in iconography, the absorbency of foreign cultural elements and the contemporary broadcasting of objects and beliefs, but also with the adoption of foreign artistic, architectural and iconographic elements in the indigenous fine arts. See Bryan 2003: 228-241 and chapter Three.
which took place regularly in Egypt or in foreign lands subjugated by the Egyptians.\textsuperscript{1451}

c) The scenes, in the deceased's view, were part of the mortuary art and complemented the ritual services which took place in the tomb. In private tombs, mortuary frescoes were painted in order to praise the virtue of the deceased, along with his services to his ruler; and his dignity and exaltation at a personal, military and official level. This is why the processional scenes are portrayed in tombs together with various other displays dedicated to the everyday and professional life of the deceased.\textsuperscript{1452} All private scenes, together with the processional displays, functioned as a means of salvation for the soul of the deceased and enabled him to continue his existence after death.\textsuperscript{1453} Theban processional scenes show no boasting on behalf of the deceased, since the purpose of the Egyptian artists was clearly functional: to depict the ceremonial during which the deceased received offerings on behalf of his ruler. In these scenes, the frequent depiction of the deceased in proximity to his ruler expresses the perpetual ambition of the Egyptian elite to get near the source of power.\textsuperscript{1454} First and foremost, the participation of the deceased official (e.g. vizier) in ceremonies at the side of the

\textsuperscript{1451} For a discussion and a list of ceremonies related to gift-offering see Davies and Davies 1933: 2-9, pl. 3-7; Panagiotopoulos 2001: 2006: 378, 386-387.


\textsuperscript{1453} Manniche 1987: 30-31; Strudwick 1999: 161

\textsuperscript{1454} Panagiotopoulos 2001: 268-269, 272. See for example, the iconography in the tomb of Rekhmire, in which the vizier is depicted in proximity to the king (the scene is badly damaged nowadays). For a few iconographic examples see Manniche 1987: 32; Manniche 1988: 35.
Pharaoh was of paramount importance in the Egyptian court. Few individuals were entitled to approach the Pharaoh. Every action or event, at the centre of which the Pharaoh stood, had a very special social meaning, as the king would distinguish those present from those absent. Juxtaposition to the king gave a political prestige and power to high-officials, and it was not boastfulness, but exactly this social status that the artist desired to depict in the processional scene.\textsuperscript{1455}

d) Similarly, another aspect of historical reality demonstrated in these scenes is the power of the Pharaoh. They illustrate how the Egyptian king distributed favours of proximity to his officials; also, the ideology that the Pharaoh’s rule and fame reached the limits of the (then) known world.\textsuperscript{1456} Moreover, the processional displays depict the cultivation of obedience of subjugated people and the Pharaoh’s prerogative to Egyptianise the sons of his enemies, which is historically proven.\textsuperscript{1457}

e) The processional scenes also manifest the economic interest of the Egyptian monarch to accumulate profit and the apparent interest of the Egyptian institutional aristocracy for exotica.\textsuperscript{1458} The scenes also manifest what kind of products and commodities were ‘desirable’ by the Egyptian elite.\textsuperscript{1459}

\textsuperscript{1455} Panagiotopoulos 2001: 269, 273; 2006: 400-401, 403-404. These issues are also examined in (table 27), with the ‘economic principles’.

\textsuperscript{1456} Panagiotopoulos 2001: 275; Shaw 2003b: 317-320 for the Egyptian imperialistic view.

\textsuperscript{1457} Panagiotopoulos 2006: 399; for the ‘Egyptianisation’ of foreign princes through their education in the palaces see Redford 1993: 178-198.

\textsuperscript{1458} This is cultivated via the encounter with foreign peoples, ideas, beliefs, natural products and artefacts. Panagiotopoulos 2006: 401-402, 404-405; Bryan 2003: 228-246 for the Pharaoh’s warfare to acquire booty and exotica; Hikade 2001 for royal expeditions and other missions for the acquisition of luxury goods from foreign lands.

\textsuperscript{1459} Van Wijngaarden (1999: 3) states that the value of an item equals the interaction between the desirability of a ‘product’ and the difficulty of acquiring it. In archaeology, the desirability and value of items is seen in artistic case studies, such as the processional scenes in the Theban tombs; otherwise, the archaeological context itself (e.g. the grave goods of a tomb or the finds from a palace)
Coming back to A-E relations, the scenes ought to be studied in relation to actual historical events. Considering that the frescoes represent historical authenticity, it is understood that at some point (from the reign of Hatshepsut to the reign of Amenhotep III, and maybe later and - why not? - earlier)\textsuperscript{1460} Aegean chiefs visited Egypt bearing gifts for the Egyptian rulers. Likewise, Aegeans participated in Egyptian state ceremonials. The participation in these official ceremonials immediately implies a diplomatic relationship between the Aegean and Egypt.

A number of questions have puzzled researchers. Among which: What kind of agreements did Aegean ceremonial gift-offering opt to secure? Political, diplomatic, military, economic, mercenary or other? What did these agreements involve and between which parties were they conducted?\textsuperscript{1461} Is it possible that gift and exchange of visits cemented an A-E dynastic marriage?\textsuperscript{1462} If, according to Duhoux, the Keftiu had colonised the Delta, how would this 'colonisation' be demonstrated in Aegean

\textsuperscript{1460} There is no visual proof that the Aegeans offered their gifts to Egyptian rulers before the eighteenth dynasty, but the lack of such scenes does not mean that the latter did not happen.

\textsuperscript{1461} Only historical hypotheses can be made with regard to the existence of an A-E treaty or agreement and its terms. If any official arrangement was conducted, the parties among which this agreement was executed, and the terms of such a treaty, remain obscure and problematic. Was there a 'contract' or alliance between the Egyptians and the Minoans, or between the Egyptians and the Mycenaean, or between the Egyptians and the Aegean Islands? If Aegeans had colonised the Delta (Duhoux 2003) or Syria-Palestine or Lebanon (Bonnet 1995; Pinch Brock 2000), could they have established a special agreement with Egypt? Chapter Seven discusses these questions.

\textsuperscript{1462} Thutmose III had received foreign princesses as minor wives (Bryan 2003: 240, 246). Dynastic marriages were cemented with gift-offerings according to the Amarna Letters, where the Egyptian king orders his vassal, the ruler of Ammia, to send his daughter and gifts to Egypt (see Panagiotopoulos 2000: 145; 2006: 399; Moran 1992: EA 99:40). Is it possible, therefore, to expect a similar situation in A-E relations, as has also been suggested by Bietak for the Avaris frescoes? (Bietak 1996; Bietak et al. 2007).
processional scenes; and what was the motive of the Keftiu of the Delta in offering gifts to the Egyptian rulers? Finally, were the Aegean chiefs depicted delegates of the Aegean palaces, or even delegates from Aegean elite households?

In Rehak’s view, Aegean ambassadors visited Egypt twice in the time period covered by the processional scenes in the Theban tombs of nobles: Once during the reign of Hatshepsut and later, at the time that Rekhmire's tomb was still being prepared. In MacGillivray’s mind, Aegean vassals visited Egypt once in the reign of Hatshepsut, three times in the reign of Thutmose III and possibly during the reign of Amenhotep II. It is worth mentioning, however, that Panagiotopoulos objects to defining the number of Aegean diplomatic visits to Egypt on the basis of the iconographic or stylistic criteria of the scenes, the physical characteristics of the Aegeans, their garments and gifts they carry. Hence, only suggestions can be made on the exact date of these visits. However, through the examination of the Kom el-Hetan list {23}, it is assumed, that Amenhotep III's embassy probably visited the Aegean

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1463 Duhoux 2003. For the colonisation of the Delta by the Aegeans see below, chapter Seven: 'On the razor's edge: Aegeans in Egypt and Egyptians in the Aegean'. Did, for instance any Aegeans living in Egypt, have to provide contributions or services to the ruler? See also note 1776.
1464 If one considers that Minoan prestige goods were not only produced in the palaces but also in elite households (tables 28, 35), then it is possible that these elite households took an active role in A-E relations (Schoep 2006; 2010: 114, 116, 117, 122). However, can this role be demonstrated in the Aegean processional scenes at Thebes?
1465 Rehak 1996: 50-51. See also (tables 53, 54). However, Rehak himself argues that the palimpsest of the garments cannot be used to support ideas about changes in political structures in the Aegean (1996: 51).
1466 MacGillivray 2009: 164-168. See the discussion in the following pages.
1467 Panagiotopoulos 2006: 389
1468 Especially if one considers that the 'appearance' of the Aegeans in these scenes is often distorted by hybridism and transference. For hybridism and transference see this chapter 'Artistic technique: the scenes through the eyes of the artist'.

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and, via reciprocity, his visit may have preceded / or followed an official Aegean visit.\textsuperscript{1469}

To the author, one thing can be taken for granted. The Aegeans, no matter their identity, were interested in dealing with Egypt, the way Egypt was interested in the Aegeans. That is why Aegeans are portrayed in the frescoes bringing their gifts, coming to negotiate with the Egyptian court. As gift-giving was reciprocal, the Aegeans would expect to receive prestige items or favours in return.\textsuperscript{1470} Why did the Aegeans wish to 'invest' in Egypt and why did the Egyptians wish to 'invest' in the Aegeans?

The procession scenes illustrating Aegean chiefs are an artistic phenomenon primarily linked to the reigns of Hatshepsut and Thutmose III.\textsuperscript{1471} The Minoan frescoes at Tell el-Dab'a date around the same chronological period according to Bietak and his colleagues, even though this date is - for some - problematic.\textsuperscript{1472} How could the Avaris frescoes be linked to the Aegean processional scenes, the Thera volcanic eruption and the Mycenaean takeover of Crete, all at the same time?

\textsuperscript{1469} There is no solid proof that the Pharaoh himself, or any Egyptian Pharaoh, ever visited the Aegean. See Cline 1987: 19-23; 1991: 40-42; Wachsmann 1987: 95-97, 113-114; Rehak and Younger 2001: 455; Karetsou 2000a: 246-250.

\textsuperscript{1470} For the reciprocity of gift-giving see Panagiotopoulos 2001: 269; 273-276; 2006: 396-397, 401-402.

\textsuperscript{1471} MacGillivray 2009: 164. See also (tables 53, 54). This applies in particular to 'traditional' Aegean scenes, which have received limited hybridism and transference. Scenes like the ones in the tomb of Amenmose (reign of Amenhotep III) have lost part of their traditional character due to hybridism and transference.

\textsuperscript{1472} Palace [F] at Tell el-Dab'a was decorated with the Minoan (or Minoan-style) frescoes during Hatshepsut's reign, according to Bietak et al. (2007). For the problematic date see chapter Five: 'Stratigraphy and date of the Avaris frescoes'. A brief discussion on the chronological relationship of the Avaris frescoes to the Aegean processional scenes in Thebes is provided in chapters One and Seven.
First, the author will refer to a recent study of MacGillivray. MacGillivray (2009) examines the Aegean processional scenes in Thebes, historically and chronologically. He sees historical events, such as the Thera eruption and the Mycenaean takeover of Crete, side-by-side with the 'appearances' of the Aegeans in the scenes of the tombs of nobles. The hypothetical chronological scheme preferred by MacGillivray places the Thera eruption in the fifth year of the reign of Hatshepsut.

As stated by MacGillivray, the Keftiu (Minoan) vassals first approached Hatshepsut at the time that Senenmut, her official, was in service, possibly on the occasion of the Queen's coronation. The Thera eruption -if dated to c 1500 BC- had probably reduced the power of the Minoans; therefore Minoan vassals visited the powerful Egyptian royal court in order to seek vital aid to restore their coastal cities, harbours and navy, or to rebuild their temples and palaces with the help of Africans who travelled to Crete to assist the Cretans. As a reward for the help that the Queen provided, the

1474 (table 15). MacGillivray 2009: 159-164. The Thera eruption is placed in 1499-8 BC by MacGillivray; and is synchronised with the outset of Hatshepsut and Thutmose III's fifth regnal year (table 16).
1475 MacGillivray 2009: 164. These Keftiu sported loinclothes and codpieces and are illustrated in the tomb of Senenmut, Hatshepsut's steward (table 54).
1476 According to MacGillivray (2009: 164), the Minoans of Crete (possibly the central administration of Knossos) sought an alliance and vital aid from Hatshepsut, as Egypt was the super-power of the era. The tsunami had devastated the Cretan coastal cities, harbours and navy and it is likely that there were riots on the island. MacGillivray reports (2009: 165) that Hatshepsut sponsored and supervised the re-building of the Minoan navy, as indicated by the reference of 'Keftiu' ships at the royal dockyard of Prw-nfr, in the vicinity of Tell el-Dab'a (for Prw-nfr see Bietak 2005b; 2009 and here, chapter Five: 'The Aegean interactions with Avaris addressed historically' and Seven: 'Possible A-E alliances and diplomatic treaties'). Hatshepsut was well known for her building projects and restorations of temples (see Bryan 2003: 229-234) and the Minoans asked for the help of the ruler to restore both their palaces and temples (as reported by MacGillivray 2009: 164-165) with the dispatch of African (Nubian?) slaves and mercenaries to Crete. MacGillivray supports this theory based on the fact that Africans appeared in Minoan art at that time (Spalinger 2006). The wall painting of the
Minoans supplied prestige items and raw materials to the Egyptian court. The Tell el-Dab'a frescoes in palace [F] were painted at about the same time. If the 'Great Green' equals the Nile Delta, and the Keftiu were at Tell el-Dab'a and Prw-nfr, this is why the Keftiu appeared in the texts (and particularly in the tomb of Useramun) as coming from the Delta.

The second delegation of Minoan ambassadors visited Egypt in the reign of Thutmose III, probably during his coronation ceremony in his twenty-second year. MacGillivray traces evidence for this visit in the processional scenes from the tomb of Useramun. Chronologically, most of the reign of Thutmose III is contemporary with the 'peak' of Minoan art and architecture in LMIB. During this period of time the

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1477 As seen in the processional scenes from tombs which date to the reign of Hatshepsut and Thutmose III. Textiles were among the items exported from the Aegean to Egypt. Aegean textile motifs and patterns inspired the painting of ceilings in tombs such as the tomb of Senenmut (pictures 155-162) and adorned the cabin of one of Hatshepsut's ships (Kantor 1947). It is worth mentioning that Senenmut must have developed a particular relationship with the Aegean as seen in the processional scenes and Aegean motifs decorating the walls of his tomb. It is also known that Senenmut had supervised work in building projects of Hatshepsut (e.g. temple of Mut of Iset at Karnak) (see Bryan 2003: 231). Whether the official responsibilities of Senenmut and his involvement in Egyptian building projects in general can support MacGillivray's idea that the Aegeans were assisted by the Egyptians and Africans with the rebuilding of their palaces and temples (maybe under supervision by Senenmut?) remains enigmatic.

1478 Palace [F] was decorated with Minoan frescoes during Hatshepsut's reign (Bietak et al. 2007a).

1479 According to MacGillivray (2009: 165) the Keftiu might have used palace [F] as a post in Egypt's royal shipyards at Prw-nfr. The text in question in {18}. For the Minoan presence in Egypt and the theory according to which the Great Green should be associated with the Nile Delta see Duhoux 2003: 119-133, 135-144, 182-187, 198-199, chapter Four: 'Terminology' and chapter Seven: On the razor's edge: Aegeans in Egypt and Egyptians in the Aegean'. For Prw-nfr see Bietak 2009.

1480 MacGillivray 2009: 165

1481 For the scene in the tomb of Useramun see Wachsmann 1987: 31-32; Panagiotopoulos 2006: 380. The second visit is portrayed, according to MacGillivray (2009: 165) in the processional scenes in the tomb of Useramun, which, according to Dorman (2006: 45-46) was decorated after the death of Hatshepsut. MacGillivray states (2009: 165) that in the reign of Thutmose III Minoans visited Egypt so regularly and in such numbers that the Egyptian scribes had to learn how 'to make names of Keftiu' {20}(Peet 1927).

1482 MacGillivray 2009: 166. See also (tables 14-16). This is when the palaces of Knossos, Kato
quantity of Egyptian imports to Crete significantly increased.  

The third delegation of Aegeans in Egypt can be placed, according to MacGillivray, when Rekhmire became the vizier of Thutmose III - likely in the second Sed festival of this ruler. Rekhmire’s tomb depicted the Aegeans in loincloth and codpiece, but this garment was painted over with the representation of kilts sometime before the tomb was sealed in the reign of Amenhotep II. At about the same time, the scenes in the tomb of Mencheperreseneb depict the Aegeans in kilts.

Hence, according to MacGillivray’s historical scenario, it is likely that the Aegean ambassadors portrayed in the scene from the tomb of Mencheperreseneb had visited Egypt for the occasion of the fifth Sed festival of Thutmose III. Evidently, judging from the scenes of the latest phase in the tomb of Rekhmire and the ones in Zakros, Gournia and perhaps Chania were rebuilt along with other ‘mansions / villas’ at Hagia Triadha, Pseira, Mochlos and Palaikastro (table 35). The chryselephantine statuary of the ‘Palaikastro Kouros’ [K294] dates to the same chronological period (MacGillivray et al. 2000).

According to Warren (1995) the number of Egyptian artefacts discovered on LM IB Crete was four times greater than what it used to be in LM IA. MacGillivray 2009: 166. Rekhmire was a vizier of both Thutmose III and his son, Amenhotep II. MacGillivray gives regnal year 33, 1472 BC for Thutmose III’s second Sed festival. For MacGillivray’s chronology see (table 16).

Koehl (2006: 344) suggests that the palimpsest from loincloth and codpiece to kilt records the new look of the Keftiu delegates at the coronation of Amenhotep II. The tomb of Rekhmire was sealed after Thutmose III’s death (MacGillivray 2009: 166) and during the reign of Amenhotep II. Therefore the Mycenaean takeover on Crete occurred after Rekhmire became a vizier in 1472 BC and before Amenhotep II’s accession to the throne in 1450 BC (Wachsmann 1987: 43-48). For the scene in the tomb of Rekhmire see Wachsmann 35-37; Panagiotopoulos 2006: 382-383.

Mencheperreseneb, kilted Aegeans visited the Egyptian royal court during the late reign of Thutmose III and, later at Amenhotep's coronation celebrations. According to MacGillivray, the Aegeans depicted in the latest phase of the tomb of Rekhmire and the scenes of Mencheperreseneb are Mycenaean Keftiu, i.e. they came from Crete, where the Mycenaean takeover had already taken place, at about the same time that Thutmose III started erasing Hatshepsut's names and destroying her images (shortly after his fifth Sed festival). Conclusively, for MacGillivray:

'Whatever agreement the Minoans had with Hatshepsut ended with her death in 1483 BC. But they continued paying tribute to Thutmose III, as portrayed in Useramon's and Rekhmire's tombs, until the start of Hatsepsut's proscription in 1463, when they were replaced by the Mycenaeans.'

Moreover, MacGillivray argues that the Minoans received a subdued status at the end of the reign of Thutmose III. His concept is based on the Karnak 'Hymn of Praise' and the inscription that Thutmose III commissioned at Gebel Barkal. MacGillivray therefore sees a Mycenaean - Egyptian alliance according to which the Minoans paid tribute to the Pharaoh, perhaps collected by the Mycenaeans on the island of Crete. He accepts

1489 MacGillivray 2009: 168. Thutmose III erased Hatshepsut's names and destroyed her image at Karnak and Thebes in his forty-second year, the year of his fifth Sed festival (see Laboury 2006: 280-282). MacGillivray states that in the same year Thutmose III received gifts including a silver vessel of Keftiu craftsmanship and other prestige items from the Prince of 'Tanaja' (Ti-n3-ııw) {19} ('Tanaja' is linked to Homeric Danaans / Achaeans / Argives according to Kirk 1885: 58, see chapter Four: 'terminology'). Therefore, according to MacGillivray (2009: 168) the Mycenaean takeover on Crete must have taken place by 1463 BC.
1490 MacGillivray 2009: 168
1491 See MacGillivray 2009: 168 for this discussion. The inscriptions MacGillivray uses to support his concept are {3} and {13} in the spreadsheet. MacGillivray received further evidence for the subdued status of the Keftiu from the iconography in the tomb of Intef (TT 155, see Panagiotopoulos 2006: 379). There, the Minoans are portrayed paying tax to Thutmose III's steward along with the Syrians and Oasis dwellers (Bryan 2006: 90-91).
that the Mycenaean - Egyptian alliance lasted until Thutmose's death, and at the end of
the agreement, Mycenaeans on Crete turned violently against the island's indigenous
inhabitants.\textsuperscript{1493}

In short, MacGillivray suggests that the Egyptian court had dealt diplomatically with the
Greek mainland and the Mycenaeans not during - and after - the reign of Amenhotep III
as suggested by Cline, but earlier, from the reign of Thutmose III. He also places the
very beginning of the Mycenaean rule at Knossos in 1463 BC.\textsuperscript{1494}

To the author, at first, MacGillivray's historical plan appears ingeniously arranged.
There are, however, a few problems:

- Both Aegean and Egyptian chronology cannot be taken for granted. Since
  November 2009, when 'Time's Up' was published, new chronological schemes
  have been suggested.\textsuperscript{1495} With the Aegean and Egyptian chronology being so
  fluid, it is difficult to accurately reconstruct the history of A-E relations as
documented in the Aegean processional scenes in Thebes.

- In fact, as the author has already shown in chapter One,\textsuperscript{1496} the fluid dates of key
  units of evidence do not allow such a precise speculation of A-E relations via the

\textsuperscript{1493} To support his opinion, MacGillivray argues that burnt LM II destruction deposits in the palace of
Knossos and in the nearby unexplored mansion have given radiocarbon calibrated dates 1448±43 BC
(according to Manning and Weninger 1992: 650-651).
\textsuperscript{1494} MacGillivray 2009: 168 contra Cline 1991.
\textsuperscript{1495} See chapter One: 'Chronological considerations' and compare \textbf{(table 16)} to \textbf{(table 18)} for Egyptian
chronology; see also \textbf{(tables 10, 19, 20)}.
\textsuperscript{1496} See chapter One: 'Analysis'.

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Aegean processional scenes, similar to the detailed chronological scenario given by MacGillivray.

- Moreover, not all researchers accept the date of the Thera eruption as adopted by MacGillivray.\textsuperscript{1497}

- Controversy is also seen on the date of the hypothetical Mycenaean takeover of Crete and the way this takeover took place.\textsuperscript{1498}

- Panagiotopoulos and Rehak do not accept that loincloth and codpiece equals Cretans, nor kilt equals Mycenaeans.\textsuperscript{1499}

- The exact number of Aegean visits in Egypt is also problematic.\textsuperscript{1500} Is it worth taking the risk of counting exact numbers of Aegean diplomatic visits in Egypt?

- Also ambiguous are the details of any political, military and economic agreement between Egypt and the Aegean, as no sources discovered so far clearly specify details of such treaties.

- Even the linkage of the Avaris frescoes with the depiction of Aegeans in the Theban processional scenes is argumentative, since the date of the Avaris frescoes is uncertain for some.\textsuperscript{1501}

\textsuperscript{1497} For suggested dates for the Thera eruption see chapter Two: 'Chronological considerations' and (tables 9, 10, 13, 14-16, 19, 20).
\textsuperscript{1498} (tables 10, 19, 28, 34, 36).
\textsuperscript{1499} Rehak 1996: 1951; Panagiotopoulos 2006: 393.
\textsuperscript{1500} Panagiotopoulos 2006: 389 and note 1468.
\textsuperscript{1501} See chapter Five: 'Stratigraphy and date of the Avaris frescoes'.

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• The Aegean processional scenes may have been distorted by hybridism and transference. Similarly, the texts that MacGillivray uses as evidence for the ceasing of contacts between the Cretans and Egypt may have been distorted by characteristic Egyptian egocentric exaggeration.\textsuperscript{1502}

Overall, however, MacGillivray’s approach to the subject is stimulating. That is because MacGillivray examines the topic in accordance with recent archaeological, historical and chronological debates and links a number of crucial topics together.

### 6.3.1 A few remarks on the Aegean processional scenes in Thebes

Here the author aspires to commend on previously expressed opinions, express a number of personal thoughts and raise questions for further research. The following points need to be taken into account:

1. Both Aegean and Egyptian elites consumed exotica. The international exchange of high-value items became a diplomatic tool.\textsuperscript{1503} Therefore, judging from the tribute scenes, the consumption of exotica in both the Aegean and Egypt is primarily an elite phenomenon and in fact, an inter-palatial activity. Considering that affluent elite households played a crucial role in the Minoan economy and production of high-value items, the participation of non-palatial high-class...
Cretans in the Theban delegations remains problematic but cannot be crossed out altogether. Nevertheless, the diplomatic nature of these contacts and the extremely high value of the wares demonstrate that in the case of the Aegean processional scenes, interaction was palace-to-palace. To some extent, the participation or not of non-palatial Cretan nobles in the Aegean processional scenes in Thebes depends on who conducted decision-making on Crete at that time (one or many?).

2. On the number of Aegean diplomatic visits to Egypt: considering that a) Aegeans are portrayed in a number of tombs and b) the ceremonials associated with the scenes are annual or at least regular events, it is possible that Aegean delegates visited the Egyptian royal court as a matter of course. It is also likely that not all visits were recorded, or, that the relevant evidence is not yet discovered. This concept comes in accordance with the author's prolegomena in the previous chapter, in which she affirms that Aegeans of high-status used to frequently visit Avaris in order to take part in special events. The Theran flotilla fresco suggests that the Aegeans might have visited Egypt in order to

1504 As seen in (tables 28, 35), already from Middle Minoan Crete onwards, the Cretan elite households played a key role in Minoan economy. For the elite households on Middle Bronze Age Crete, e.g. quarter Mu (Malia) see Schoep 2006; 2010: 114, 116, 117, 122. For the production of prestige items in elite households see Schoep 2010: 117, 122. Also, Watrous 2001: 212 for a brief discussion of non-palatial production and circulation centres.

1505 The term \textit{wrw} (=chiefs) which is used to describe the Keftiu chiefs (\textit{wrw nw Kftyw} or \textit{wrw nw Kftyw} or \textit{wrw nw Kftyw}) makes it clear that the administration of Crete is mentioned. \textit{wr}: Wb 1, 328.13. Notice that the term is used in the plural (\textit{wrw}). This could mean that during the reign of Hatshepsut and Thutmose III Crete had numerous chiefs and not only one. Could these chiefs be local chiefs associated with elite households, or the palace of Knossos was not the only administrative centre in Crete?

1506 See chapter Five.
participate in such ceremonies.\textsuperscript{1507} \textit{Prw-nfr}, which was probably used by Aegean ships and visitors, is depicted on the walls of the tomb of Rekhmire.\textsuperscript{1508}

3. Setting aside a) the interpretation of the garments as 'Minoan' or Mycenaean', b) the date of the Thera eruption and c) the exact date of the Mycenaean takeover on Crete, it is theoretically possible that Thutmose III and his successors dealt with the Minoans at the same time that they dealt with the Mycenaeans (on Crete and / or the Greek Mainland, depending on the various dates suggested for the Mycenaean takeover of Crete).\textsuperscript{1509} After all, neither did the (hypothetical and problematic) Mycenaean takeover of Crete happen overnight; nor were there strict spatial limits on the diplomatic policy of these Pharaohs. As GT suggests, visionary and potent leaders\textsuperscript{1510} such as Thutmose III and Amenhotep III would conduct alliances and 'do business' with more than one party at the same time - even with nations competing against each other - on the basis of what they wished to achieve through these partnerships. Any political rivalry between the Minoans and the Mycenaeans in the Aegean meant little to the Egyptian Pharaohs so long that their interests were served. It is, however, true that, due to the location of Crete, this island, no matter who ruled it, was important to the Egyptians, as it offered great potential for further networking and acquisition of goods.

\textsuperscript{1507} For the flotilla fresco on Thera see Morgan 1988: 41-44 and note 1181.
\textsuperscript{1508} Porter and Moss 1960: 206-214.
\textsuperscript{1509} For the dates of the Mycenaean takeover see chapter Three and (tables 16, 20).
\textsuperscript{1510} Again, 'visionary' and 'potent' is highlighted as these two skills are related, in GT terms, with the so-named rationality in games. The concept is linked to the way coalitions are formed. See chapter Two and [§ rationality and learning process in games] for details.
4. Since the Aegean processional scenes are notably associated with tombs which date the reign of Hatshepsut and Thutmose III, the foreign policy of these rulers must be taken into account.\textsuperscript{1511}

Hatshepsut is indeed legendary for her building projects and her restoration of temples.\textsuperscript{1512} She is also memorable for her expedition to Punt, for the purpose of purchasing 'incense' for the temple of Amun. This expedition was clearly stimulated by her interest in exotic goods.\textsuperscript{1513} The same interest in exotica is also illustrated in the processional scenes in the tomb of her official, Senenmut.\textsuperscript{1514} Thutmose III is associated with numerous military expeditions.\textsuperscript{1515} The Annals of Thutmose III and later the Amarna Letters capture a glimpse of Egypt's policy towards Palestine.\textsuperscript{1516} In combination with his military expeditions such as the Megiddo campaign, Thutmose III adopted two more measures to control the area: diplomatic marriages with foreign princesses; and the training of the princes of his western Asian enemies in the Egyptian palaces.\textsuperscript{1517}

Hatshepsut and Thutmose III benefited from the products of the lands which

\textsuperscript{1511} For how the fluid dates of key-units of evidence might affect the A-E relations see chapter One: 'Analysis'.
\textsuperscript{1512} For her building projects and restoration of temples see Bryan 2003: 228-235.
\textsuperscript{1515} See Gabriel 2009: 81-198
\textsuperscript{1517} For Thutmose III's foreign wives see Bryan 2000: 240; 246; for the 'Egyptianisation' of foreign princes see Bryan 2003: 238 and Redford 1992: 178, 198.
they had conquered via warfare. However, these products were not enough to cover the tremendous needs of the Egyptian administration. Imports were unavoidable.

Hatshepsut must have developed a special relationship with the Aegean, the details of which remain enigmatic. This relationship is illustrated on the Avaris frescoes (if Bietak's given dates are accepted) and on the processional scenes in the tombs of Senenmut and Puimre. To the author, it is debatable whether Africans visited Crete and assisted the Minoans to re-build the temples and palaces, as suggested by MacGillivray. Certainly, the discovery of a significant number of Aegyptiaca and Egyptianising artefacts on late Neopalatial Crete can receive numerous interpretations. There is a strong possibility, however, that the Aegeans were in demand by Hatshepsut, since raw materials and exotica arrived in Egypt from, or via, Crete. It is, thus, anticipated that the naval base of Prw-nfr assisted the A-E exchange, since Keftiu boats must have anchored there. It is also likely that the nearby Minoan-fresco decorated palaces at Avaris were the centres of diplomatic agreements between Hatshepsut and the Aegeans.

1518 For the processional scenes in the tombs of Senenmut and Puimre see Wachsmann 1987: 27-31; Panagiotopoulos 2006: 378-381. As it was stated earlier, the Minoan frescoes at Tell el-Dab'a Palace [F] date to the reign of Hatshepsut (according to Bietak et al. 2007).
1519 MacGillivray 2009: 165. See also, chapter Seven: 'Possible A-H / A-E alliances and diplomatic treaties'.
1520 For the artefacts see chapter Four and the Annex.
1521 As seen in the Aegean processional scenes which date to the reign of this ruler (table 53).
1522 For the naval base of Prw-nfr see Bietak 2009.
Perhaps the charismatic leader Thutmose III, inspired by a political acumen, approached old friends and allies, the way his predecessors had done. Victorious warfare was of paramount importance for Egyptian administration. Hence, the leader was obliged to import war supplies for his army and officials; and campaigns and raw materials for his extravagant life-style and building projects.\textsuperscript{1523} This is what the Aegeans were needed for.

A certain Keftiu - Egyptian agreement and alliance - as cited in the tomb of Rekhmire - might have contained special terms such as the obligation of the Aegeans to provide raw materials for the weaponry, warfare and building projects of the Egyptian ruler. Along with various raw materials, the Aegeans supplied Egypt with groceries, wood and pharmaceutical products.\textsuperscript{1524} These imports must have been used partly for warfare and partly for elite consumption. The theory that the Minoans provided raw materials for Egyptian weaponry was also raised by Wachsmann.\textsuperscript{1525}

The reigns of Hatshepsut, Thutmose III and Amenhotep II are characterised by an extended period of warfare as eighteenth dynasty Egyptian imperialism triumphed.\textsuperscript{1526} In the case of the processional scenes researchers have to deal

\textsuperscript{1523} Hoffmeier 2004: 128-141. For the reign of Thutmose III see Bryan 2003: 235-241.
\textsuperscript{1524} Vercoutter 1956: 423-427; Phillips 2010: 825-827.
\textsuperscript{1525} Wachsmann 1987: 78-92, 104-105. Wachsmann argued that in the reign of Thutmose III, the Minoans collected and recorded capride horns in the palaces, in order to export them to Egypt for the construction of composite bows. Wachsmann also assumed that trade of capride horns might have reached Egypt via Cyprus and / or Syria (see Wachsmann 1987: 89-91).
\textsuperscript{1526} Redford 1967: 57-72; Bryan 2003: 228-235; (Hatshepsut, also discussing her warfare); Bryan 2003: 235-241(Thutmose III); Bryan 2003: 241-246 (Amenhotep II).
with aspects of command economy activated during and after warfare crisis and the contribution of tax to the most powerful leader of the region, on behalf of subjugated or independent nations. Of course, in the processional scenes and portrayed events in Thebes, some of the traditional enemies of Egypt are depicted as bearing their 'gifts' or 'tribute' to the Egyptian court – in other words, the enemies are 'tamed', or the artist chooses to depict them as disciplined; but the Egyptian state remains vigilant, in case these, or other enemies resurge. On the other hand, independent nations contribute to the Egyptian court in order to have the powerful Egyptian ruler by their side, in war and peace.

This expansionary foreign policy of Hatshepsut, Thutmose III and their successors to the throne required the help of the Aegeans and other independent nations. It is likely that the Aegeans played an active role in the warfare of these Pharaohs, contributing with boats or mercenaries.

Whether Thutmose III had invited Aegean soldiers to Egypt in order to fight against his enemies remains only a theory. Later sources suggest that this could have been an option, as a few decades later, the Aegeans possibly served in the Egyptian army in the reign of Akhenaten. A similar case-study comes from

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1527 For command economy see (table 27), the discussion of the economic principles, and the conclusions: 'Research question Three.

1528 Papyrus EA 74100 depicts Mycenaean or, less likely, Minoans fighting alongside Egyptians against Libyans. The Aegean warriors are shown running towards the side of an Egyptian warrior who is about to be killed. However, the Aegean figures wearing boars' tusks helmets and Egyptian loincloths remain however problematic. See Pendlebury 1951: 141; Parkinson and Schofield 1997: 401-404 and the commentary in Rehak 1996: 51.
later Naucratis.  

Besides, the Knossian wall-painting with the so-named 'Captain of the Blacks' depicts African soldiers. More examples can be mentioned, such as the Libyan fresco from Thera. These examples could indicate that a) African-non Egyptians assisted the Knossians in their warfare and / or b) Aegeans had assisted Egyptians in their warfare. Nevertheless, all these sources remain highly problematic in date and content. Scholars need, therefore, to investigate if the archaeological evidence can justify the theory of an Aegean presence in Egypt in the reigns of Hatshepsut / Thutmose and vice versa; and this is where the difficulty arises.

5. Amenhotep III sent a diplomatic mission to the Aegean in order to renew contracts. This action had a dual objective: firstly to reinforce connections with an old, valued trading partner, and second, to establish connections with a new

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1529 See note 1776.  
1530 (picture 115).  
1531 Evely and Jones 1999: 191. The name is given by Evans 1928: 755 who suggested that the Minoans used Africans as auxiliary soldiers. The fresco (picture 115), from the house of the frescoes at the Palace at Knossos, shows a Minoan man wearing a short kilt and a horned cap and holding two spears. This figure, i.e. the 'Captain', is running towards the right. Two remaining fragments portray another figure running behind the 'Captain'. Only the back of the head and part of one leg has survived from this figure. This man also wears a kilt, carries at least one spear and wears a horned cap. However, the skin of this figure is darker than the Minoan 'captain' in front of him and has more curly hair than his Minoan companion. It is possible, therefore, that the second figure depicts an African non-Egyptian (possibly a Nubian in the services of Egyptians).  
1533 The author reminds the reader that MacGillivray has expressed a theory according to which the Egyptians sent Nubians and other Africans to Crete to assist the Minoans with their re-building of the palaces and temples (MacGillivray 2009: 165). However, the depicted African in the wall-painting is a warrior. Could it be, therefore, that Africans assisted the Minoans in the rebuilding of their palaces / temples? It is not clear from the background of the scene whether the depicted 'Captain of the Blacks' (picture 115) is on Crete or abroad. It is possible, however, that Aegeans offered their missionary services to the Egyptians.  
1534 This question will be discussed again in chapter Seven: 'On the razor's edge: Aegeans in Egypt and Egyptians in the Aegean'.  

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rising power, the Mycenaeans on the Greek Mainland. Of course, for MacGillivray, Egyptian - Mycenaean relations had already started in the reign of Thutmose III. Not only Mycenaean were centres rich in Aegyptiaca, but in addition, the Mycenaean archaeological material from Amarna, Malqata and other places is enough to prove that there was a distinct Mycenaean presence in Egypt after the decline of the Minoan culture.

6. To the author's mind, it is hypothetically possible - in accordance with MacGillivray's historical scheme - that the Minoans were worried that the Mycenaeans might threaten their territorial and political interests and rights; and so they sought the protection of the leading Pharaohs. Later, when the Mycenaeans were present on Crete, Cretan relations with Egypt continued but it is difficult to establish the exact terms of any Mycenaean - Egyptian agreement; or, when and how this agreement was initiated. The Aegean islands, first in the Minoan cultural sphere and later under Mycenaean influence, followed the same pattern.

7. Another possible explanation for the Aegean opening up to Egypt is that Minoans, Mycenaeans or Islanders - and whoever wished to conduct relations with the powerful Egyptian kingdom - wished to supplant their enemies or trade

1535 Cline 1987; 1991
1536 MacGillivray 2009: 168
1538 There is a wide scholarship about the Aegean and Mycenaean pottery at Tell el-Amarna (otherwise stated as Amarna). See e.g. Mommsen et al. 1992. See also e.g. Nicolakaki-Kentrou 2003; Koltsida 2009 for Malqata.
1539 MacGillivray 2009: 165-166.
competitors. The Aegeans enforced their trade with Egypt against other people (Syrians, Canaanites, etc.) who were also controlling the Mediterranean trade routes. Cyprus, for example, must have been a rival to the Minoan and Mycenaean relationship with Egypt, if one considers the amount of Cypriot pottery unearthed at Tell el-Dab'a and elsewhere in Egypt.1540

8. Similarly, the Aegeans must have benefited from the Pharaoh’s action against Egyptian enemies and, in the processional scenes, they were portrayed acknowledging Egyptian contribution. There is also a possibility that the Egyptians safeguarded the sea on the north coast of Africa by subduing piracy, to the benefit of the Aegeans. As a reward, the Aegeans offered gifts to the Egyptian court.1541

9. Possible establishment in foreign lands allowed Minoans and Mycenaeans to improve their relations with Egypt.1542 Minoan individuals must have been present in Syria-Palestine and the Levant in order to act as intermediaries with Egypt and other locations.1543 Other researchers, such as Duhoux, even suggest

1540 For the Cypriot pottery at Tell el-Dab'a see Maguire 2009. See (tables 34, 36, 38a-c).
1541 The Aegean must have been in disorder after the Thera eruption and its aftermath (fires, tsunami, weather changes, famines and epidemics). A climate of instability in the area caused invasions and mass movement of people. As a result, piracy flourished and became uncontrollable. The Sea Peoples (n3 h3t.w n p3 ym), were likely to have been one of the late consequences of the volcanic eruption - to be expelled by the Egyptian Pharaohs in the Ramesside Period and must have started troubling the EM routes before Merenptah and Ramesses II. After all, the Lukka people (among the Sea People) are mentioned on the Byblos obelisk (see Bryce 1974). For the Sea People see Shaw 2003b: 321-323.
1542 'Colonisation', i.e. the creation of Minoan / Aegean colonies in foreign lands is of course a very sensitive topic to discuss. See chapter Seven: 'On the razor's edge: Aegeans in Egypt and Egyptians in the Aegean'.
1543 See Pinch Brock 2000 (Minoans in Syria-Palestine); Bonnet 1995 (Minoans in Ugarit), Redford 1992: 252 (the slightly later 'Tjeker' hypothesis in Dor), Yasur-Landau 2010 (the Levant); Greaves 2010 (Western Anatolia). See also Byblos, Ugarit and all other regions where Minoan frescoes have been discovered.
Minoan colonisation on Egyptian ground.\textsuperscript{1544} Greek mainlanders first moved to Crete and then to Cyprus, Anatolia and elsewhere, for the expansion of the power and profits of the motherlands.\textsuperscript{1545} Any Aegeans abroad had to deal directly with the administration of the homeland, the administration of the 'country' in which they lived; and the administration of the nation with which they traded - in this case, Egypt. It would be sensible for Aegeans in Syro-Palestine to appear in Egyptian iconography in Syrian garments, if they had been partly absorbed by Syrian culture.\textsuperscript{1546} Aegeans from outside the Aegean (Syro-Palestine, Egypt, etc.) are, therefore, likely to have been portrayed in the Aegean processional scenes.\textsuperscript{1547} Moreover, Duhoux, who associates the Great Green with the Nile, has also suggested that the Aegeans depicting in the tomb of Useramun come from the Delta; a scenario which is possible assuming that $Prw\text{-}nfr$ is placed at Tell el-Dab'a.\textsuperscript{1548}

10. Diplomatic marriage was commonplace in the Ancient Near East.\textsuperscript{1549} The sense of 'brotherhood' is not only abstract;\textsuperscript{1550} it occasionally receives a factual meaning, since, through dynastic matrimony, royal members become relatives

\begin{thebibliography}{99}
\bibitem{1544} See Duhoux 2003; 2008 (Minoans in the Delta); Belova 2004 (Minoans at Memphis). See also chapter Seven: 'On the razor's edge: Aegeans in Egypt and Egyptians in the Aegean'.
\bibitem{1545} See Mazar 1992 (Mycenaeans in Philistia); Steel 2010 (Mycenaeans in Cyprus), etc. See also (tables 28, 36).
\bibitem{1546} Pinch Brock 2000: passim.
\bibitem{1547} See this chapter: 'What the Aegean processional scenes in Thebes tell researchers about the Aegeans': '8'.
\bibitem{1548} Duhoux 2003: 182-187, 198-199; 2008: passim, based on \cite{1, 2}. For the Minoan presence in Egypt and the theory according to which the Great Green should be associated with the Nile Delta see Duhoux 2003, chapter Four: 'Terminology' and chapter Seven. For the hypothesis that $Prw\text{-}nfr$ situated at Tell el-Dab'a see chapter Five 'Aegean Interactions with Avaris addressed historically'.
\bibitem{1549} See Bryan 2003: 246 for a brief discussion of diplomatic marriages in the eighteenth dynasty. Also, Schulman 1972.
\bibitem{1550} [§ brotherhood].
\end{thebibliography}

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by marriage. A royal marriage seals alliances and agreements and brings exotica to the palace through dowries. Moreover, from the WS point of view, a diplomatic marriage stimulates networking of items and ideas - and thus, motivates core-periphery interactions; whereas in GT terms, such marriages function as strategies.

Bietak, Negbi, and Cline have suggested an A-E diplomatic marriage. Their theory is especially associated with the Avaris frescoes but the gift-giving of the Aegean delegates in the Theban processional scenes might also advocate such an event. Nevertheless, since further evidence is scarce, this theory remains an attractive hypothesis awaiting confirmation.

11. It is important to examine the scenery of the Aegean processional scenes and study where gift-giving took place. The evidence suggests that the Aegeans had visited the Egyptian royal palaces and the Temple of Amun and had also offered gifts in New Year's festivals. The variety of events and locations in which Aegeans participated in order to offer their gifts demonstrates an A-E relationship which is not only diplomatic and political, but also bears a strong

See Cline 1995a

See the Annex: 'Avaris', for Queen Ahhotep, and chapter Five: 'Who painted the Avaris frescoes and why were these frescoes painted? A cornucopia of ideas'.

Offerings to the temple of Amun are depicted in the tomb of Puimre. Offerings during the Egyptian New Year's festival are portrayed in the tomb of Menchepereseneb (tables 53, 54).
social, cultural, religious and ceremonial nature. After all, Hussein has suggested that the male Syrian-looking figure labelled as 'Chief of the Keftiu' in the tomb of Mencheperreseneb (First Priest of Amun) was a nobleman, and specifically a Minoan priest with ritual and political duties.  

The discussion will return to political marriages, A-H / A-E treaties and the presence of Aegeans in Egypt in chapter Seven.

6.4 Re-evaluating the Aegean processional scenes in Thebes through Game Theory and the World Systems approach

After discussing the Aegean processional scenes, it can be concluded that:

A) From the GT point-of-view:

- The processional scenes in the Theban tombs of nobles represent a political / diplomatic and economic 'game'. The players are the states, delegates of which are depicted in these scenes. The objective is contact with the Egyptian superpower. The strategies of these states (offering tax or gifts to the Egyptian court) aim to cement this contact. The payoffs of the game are twofold: The Egyptian Court maximises its political and economic power by accumulating

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1558 Hussein 2007: 36-38 (contra Wachsmann 1987 who justifies the Syrian-looking 'Chief of the Keftiu' as a result of hybridism and transference) argues that the male short-haired and bearded figure wearing the Syrian fringed robe and labelled as 'Chief of the Keftiu' matches the profile of a Minoan priest (e.g. Marinatos 1993: 127-134 with artistic examples from Crete).
profit; while foreign nations remain on good terms with Egypt, expecting to receive clemency, favours or services in return for their offerings. Likewise, the Aegean strategy is to offer gifts to the Egyptian Court so that Aegean-Egyptian relations remain amiable. If so, both Aegeans and Egyptians benefit from this relationship, politically and economically.

- As Lupia and Menning have shown, emotions as game strategies play a key-role in politics. Egypt draws power via propaganda, public diplomacy and the cultivation of fear. It is because of fear that foreigners bring products to the Egyptian state.

- These scenes demonstrate selection: depicted agents are in coalition, whereas nations excluded from these displays are not part of it. Agents offer tax / gifts to stay in the coalition, and the Aegeans are part of such a scheme.

- Yet, the game is co-operative and non-co-operative at the same time. Co-operative because all agents offer contributions, and non-co-operative because,

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1559 [§ reciprocity].
1560 Johnson et al. 2001 have shown that gift-exchange as a game strategy in co-operative games is based on empirical learning. Similarly, diplomatic marriages are also strategies for the creation / maintenance of coalitions.
1561 Lupia and Menning 2005
1562 For public diplomacy see [§ diplomacy].
1563 Similar to the modus operandi of [§ Evolutionary Game Theory], i.e. via selection and reform.
1564 See chapter Two: 'Game Theory and Aegean - Egyptian relations': IV) conflict and coalitions, VI) expansionary policy.'
some of the depicted nations (such as the Syro-Palestinians) were traditionally rivals of Egypt. Co-operative and non-co-operative because diplomatic gift-giving and the market are areas which are naturally competitive. The same conclusion (co-operation and non-cooperation at the same time) can be gathered when considering the Aegeans: they were not seen as subjects by the Egyptians; however the Aegeans were afraid of imperialistic Egypt and in certain fields, it is likely that they even competed with its market.1565

- Lastly, judging from the distribution of these scenes throughout the eighteenth dynasty, the frequent pattern of this reciprocal tax-/gift offering demonstrates repetition, the process of learning from the past and learning from others.1566

Likewise, it is notable that

B) from the WS point-of-view:

- On the basis of Gills and Frank's definition of core-over-periphery superhegemony, in the processional scenes in question, Egypt appears as a super-

1565 See this chapter 'What the Aegean processional scenes in Thebes tell researchers about the Aegeans'. Market competition may be seen in the fact that Egyptians imported Minoan products such as the Keftiu beans [4], which were competitive with local pharmaceutical substances.
1566 Johnson et al. 2001. See also [§ rationality and learning process in games].
hegemony. These displays demonstrate transference of wealth (and culture) between WS zones, and profit accumulation on behalf of Egypt. The Aegeans, (semi-)peripheral / marginal to the core, contribute to the super-hegemony.

- Egyptian imperialism and Bronze Age EM elitism and proto-capitalism are also seen, along with other international diplomatic and economic models of the era. Moreover, the displays describe an 'oikumene', as the result of what in modern terms would be called economic globalisation. The Aegeans follow the political and economic models of their time, are part of this 'globalisation movement' and an active WS zone, the political and economic actions of which can affect the balance in the world system.

Once more, this discussion highlights common patterns between GT and the WS approach considering international relations and A-E relations. Such patterns are, for instance, the mutual inclination of states / players to interact with each other, and the fact that the future of the group depends entirely on the actions of individual group elements.

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1567 Gills and Frank 1993: 103. The latter occurs at least in a propagandistic manner.
1568 Similar to the Avaris frescoes in chapter Five.
1569 Frank and Gills 2000: 9. See also chapter Two: 'Characteristics and behaviour of the World system' and chapter Five 'Re-evaluating the Avaris frescoes through Game Theory and the World Systems approach'.
1570 These are the economic principles in (table 27).
1571 See chapter Two: 'Characteristics and behaviour of the world system'.
1572 The latter is agreeable with the GT term of equilibrium. See chapter Two: 'Game Theory and Aegean - Egyptian relations: IV) conflict and coalitions, VI) expansionary policy.'
Chapter Seven links together all topics discussed in the previous chapters, focusing on individual issues of A-E interrelations.

7.1 Patterns of exchange through the analysis of artefacts

7.1.1 Some observations on Egyptian and Egyptianising material unearthed on Crete and in the Archipelago

In chapter Four and in the Annex, the author examined a number of Egyptian and Egyptianising finds within their Aegean archaeological context. The general impression received is that the majority of these items are problematic, either with respect to their date, or, to their exact provenance and comparanda.\textsuperscript{1573} The pattern of transference of

\textsuperscript{1573} See, in particular, the Annex: 'Time, space, context' and the conclusions of each group. Also, (tables 49a-d).
these objects to the Aegean also raises a number of questions, but it is generally evident that some of these items must have reached the Aegean within an inter-elite exchange, whereas others were a mere product of trade; directly, or via third, extra-Aegean / Egyptian, parties (e.g. the Syro-Palestinians or the Cypriots). The Egyptianising items are either locally-made, imported from non-Egyptian locations, or produced and circulated by non-Egyptians. Egyptian and Egyptianising artefacts from Aegean contexts carried specific indigenous and international cultural aspects, therefore, cultural and technological knowledge was transported along with the items.

The fact that many of these artefacts have been unearthed from contexts associated with the elite (e.g. the palace compounds and mansions) is unsurprising. It demonstrates that the local hegemonic class accumulated exotica, in an almost obsessive and habitual manner, on the basis that the display and consumption of anything foreign (or foreign-like) is synonymous with possessing high social status. Egyptian and Egyptianising items were also associated with local administrators.

Nonetheless, this does not imply that Aegyptiaca were restricted to the palaces.

Excavations in mansions and funerary contexts have also produced some Egyptian, but

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1574 See also chapter Seven: 'Patterns of exchange through the analysis of artefacts' and particularly 'Some observations on Egyptian and Egyptianising material unearthed on Crete and in the Archipelago' and Research question Three (tables 57, 58).

1575 See, e.g. [K33], [K73], [P495], etc. for Egyptianising items made on Crete [P245], etc. for Egyptianising likely to have been made in Syria-Palestine or Anatolia.

1576 See, for example, the artefacts discovered in the Knossos palace contexts ([P170], [P153 & P155], [K21], [P158], [P163], etc.) or those from the royal tomb of Isopata ([P245], [P252], [P254], [P248], etc.).

1577 As discussed with the 'economic principles' in (table 27), and in the term [$§ exotica$].

1578 See, e.g. scarabs and sealings such as [P449], [P159], etc.
mainly Egyptianising items. For instance, Egyptian and Egyptianising objects were
frequently used as funerary goods on Crete, particularly in tombs of the medium to high
social class (mainly lower elites). These items were functional. They were used by
their tomb owners while they were alive, and they were linked to a particular use and
symbolism. It also appears that Egyptian and Egyptianising artefacts played a crucial
role in Aegean cult, society and tradition, regardless of social stratification, as local cult,
culture and tradition embraced all social strata, and not only the elite. Moreover, as
seen before, Nilotic scenes were not restricted to palace contexts. Therefore, to the
author's mind, Egyptian and Egyptianising items in the Aegean, along with the
transference of Egyptian knowledge itself, are not a strictly elite phenomenon.

The examined evidence also indicates that Aegyptiaca unearthed in the Aegean ranged
from elite-oriented genuinely Egyptian, luxurious or everyday objects, made in the
Egyptian technique, and from exotic material; to artefacts inspired by Egyptian
models; and to mass produced, streamlined, hybrid and occasionally senseless
Egyptianising items. The latter were assembled and / or circulated by various
nationals (Aegeans, Syrians, Anatolians, etc.) for the purpose of satisfying the demand
of a constantly growing middle class in the Aegean and in the EM as a whole.

1579 See, e.g. [P492], [P4], [P8], [P281], etc.
1580 See, for example, items related to the image of the Genius [P12], [P88], [P318], or the kernos
[P279], etc., or the Nilotic Scenes in chapter Three, and many other examples provided in the Annex
and on the spreadsheet.
1581 See above, chapter Three and note 678.
1582 e.g. [P272], [P4].
1583 e.g. [P375].
1584 For the role that these items played in GT terms, see the end of chapter Four: 'Re-evaluating the
exchange of exotica through Game Theory and the World Systems approach'.
Effectively, already from the Middle Bronze Age onwards, not only genuine Egyptian imports, but also imitations and replicas of Egyptian and other foreign objects received a socioeconomic significance, as the middle class attempted to imitate the manners of nobility.\textsuperscript{1585}

Certainly, there was a cosmopolitan atmosphere in the Middle and Late Bronze Age Aegean. In the author's opinion, some obviously 'Egyptianising' images, for example the image of the cat, the duck / goose / swan and the pregnant figure in their cultural context, should be filtered out of the scenario of transference and be regarded as a koiné.\textsuperscript{1586} Others, such as the image of the crocodile or that of the baboon, or the transformation of the Egyptian standing hippopotamus deity to the Minoan Daemon, must be seen as transferable knowledge, as these images are not native to the Aegean.\textsuperscript{1587} Cosmopolitanism presupposes regular contact with foreign people and ideas. For example, the cosmopolitan influence on the Malia workshops is manifested in a number of foreign and exotic-like (among them some Egyptianising) items derived from Malia quarters Z, Mu and Nu.\textsuperscript{1588} Evidently, these finds indicate that the Malia craftsmen were aware of foreign artistic trends. Even so, they did not copy international artistic sources directly. Rather, they received foreign ideas and sources of inspiration second hand, and modified them according to local fashion.\textsuperscript{1589}

\begin{itemize}
\item \textsuperscript{1585} See for example Egyptian scarab [P262] versus Egyptianising Canaanite scarab [P215] or the Minoan, imitating Egyptian, scarab [P262].
\item \textsuperscript{1586} The reasons why these images are considered a koiné, are provided in the Annex: particularly, in the conclusions of the individual groups.
\item \textsuperscript{1587} On this, the author agrees with Phillips 2008. For examples of the images of cat, goose, etc, see the individual groups in the Annex.
\item \textsuperscript{1588} For these artefacts see Phillips 2008, vol. 2: 184-195 [369-391].
\item \textsuperscript{1589} e.g. [K33]. See \textsection artefacts of foreign inspiration.
\end{itemize}
Additionally, groups of finds which demonstrate similar artistic techniques, ideas and styles, such as the Minoan Daemon-related items, or the Nilotic scenes, suggest that in the Aegean there were workshops, craftsmen and traders, who specialised in Egyptianising items. In other words, these items were part of an EM koiné which created a market for them.\textsuperscript{1590} Minoan craftsmen imported raw materials from Egypt to satisfy the needs of this market, such as Egyptian alabaster for the production of stone vessels.\textsuperscript{1591}

Another case observed in the Aegean Aegyptiaca is that of antiques in their archaeological context, and the modification of Egyptian artefacts according to local aesthetics.\textsuperscript{1592} Antiques may be modified or unmodified.\textsuperscript{1593} The Minoans gathered antique Egyptian artefacts, such as vessels / containers, via the trading process, or as gifts. The ‘value’ of exotic ‘antiques’ when exchanged remains enigmatic. Antiques, especially vessels, may have acquired special value due to their age;\textsuperscript{1594} alternatively, when outdated or misunderstood, they were modified to the latest fashion or to personal / local taste, i.e. they were 'recycled', occasionally receiving a brand new use

\textsuperscript{1590} i.e. the previously mentioned Malia workshops, or the Messara workshops of Egyptianising items (such workshops are discussed in the Annex; see e.g. the crocodile image).
\textsuperscript{1591} According to Warren 1969:105-115.
\textsuperscript{1592} The work of Whitley discusses the value of the heirlooms and antiques in the Late Bronze Age, and the ‘biographies’ of burial goods (see Whitley 2002: 221, 226).
\textsuperscript{1593} e.g. [P158], [P281], etc.
\textsuperscript{1594} An in-depth analysis of how antiques are seen nowadays (Rosenstein 2014) and a comparison with some items from the Bronze Age EM, would potentially advance the understanding of the value of antiques in antiquity.
and symbolism. These alterations took place in palace and non-palatial workshops, for practical, cultural and economic reasons, especially in times of recession. The Minoanisation of Egyptian stone vessels, most commonly antiques, is discussed by Warren and recently by Phillips. Egyptian vessels, converted to suit Minoan taste, were frequently used for cultural and ritual purposes. Such vessels have been discovered on Crete, Thera and in Mycenae. Warren proposes that some antiques were traded items looted from Egyptian tombs. It is worth mentioning that both modified and unmodified antiques are usually troublesome with regard to their chronological context.

Last, this thesis has examined a number of Aegean Aegyptiaca (Egyptian, Egyptianising or those of problematic identity) inscribed with names and titles of Egyptian individuals, royalty or commoners. The author asserts that their inscriptions could be used for chronological purposes, with limitations. These objects, together with their

1596 Phillips 2008, vol. 1: 80-88, with the list of all modified vessels from the Aegean in Phillips' Annex: 'Converted stone vessels', in ibid: 88. Phillips also groups these vessels in modification types, according to their conversions (ibid: 80-87). See also Warren 1997.
1597 See e.g. [P119], [P104], etc.
1598 See the examples provided in the Annex: 'Converted stone vessels', and Phillips 2008: vol. 1: 88. A few examples, with regard to the A-E chronological debate, are also mentioned in Warren 2009, and chapter One in this thesis.
1599 Warren 1969: 108
1600 e.g. [P163].
1601 See chapter Four: 'Artefacts found in the Aegean, inscribed with names of Egyptian individuals' and artefacts such as [P163], [P158], [P114], [P262], etc.
1602 The latter, in the author's opinion, applies with limitations: an item inscribed with a name of a ruler is usually made during the reign of that ruler, or slightly later. Nonetheless, it may be transported long after that date (see e.g. (table 49a-d)). If such an item is produced and inscribed with royal names
inscriptions, are also bearers of cult, culture, knowledge and identity; essentially the culture and identity of the person mentioned.\textsuperscript{1603} Therefore, a transference of an item inscribed with Egyptian royal names and titles from Egypt to the Aegean, may be considered as an action which breaks anonymity (or it spreads fame, power and propaganda) of a person to the outside world; or even a request for co-operation and alliance.\textsuperscript{1604} A name on an item may indicate that it belongs to that particular person, but not necessarily. For example, objects with royal names and titles may be trade products, or even souvenirs from a foreign land, mass-produced or copied by craftsmen and distributed by tradesmen of various nationalities. In this case, the inscribed royal names and titles increase the value of the item. Such is the case with the scarabs and scaraboids of Amenhotep III, Queen Tiyi, and other rulers, which circulated widely in the EM.\textsuperscript{1605} The inscribed Aegyptiaca raise a series of questions, such as 'how - and why - did these items end up in the Aegean', 'did the Aegeans know they came from Egypt', and equally important, 'could the Aegeans read the hieroglyphic inscriptions on them'?\textsuperscript{1606}

\footnotesize

\textsuperscript{1603} For example, ancient Egyptian names and titles are an important aspect of a person's life and afterlife and they play a crucial role in Egyptian cult (see e.g. Book of the Dead). Moreover, the Egyptians believed that a name equals the existence of a person in the course of time, and linked it with eternity. For Egyptian royal names and titles see Quirke 1990; Beckerath 1997; 1999; Jones 1988 (naut.); 2000.

\textsuperscript{1604} i.e. to the author's mind, it could operate as does a modern business card or a signature – yet, the latter is strictly a matter of interpretation.

\textsuperscript{1605} See e.g. [P262], [P18], [P476] (picture 23), [P125], etc.

\textsuperscript{1606} The author of this thesis hopes to answer these questions in a future publication. See also the relevant group of items in the Annex.
7.1.2 The perception of 'foreign' in the Aegean

Panagiotopoulos recently reassessed the definition of imports in the Aegean. He correctly argued that it was difficult for Prehistoric Aegean consumers to distinguish between exotic 'originals' and 'imitations', or, for Minoans to leave a 'misunderstood' imported item unconverted. Yet, the latter is not a rule, as certainly, the level and type of 'misunderstanding' differed from item to item. Panagiotopoulos states erroneously that the 'foreignness' of an item had no significance to the average Aegean, because few Aegeans had direct knowledge of Egypt and the Near East. His concept is not entirely true, because these 'few' Aegeans, who had travelled to distant lands, would spread the word about the 'foreignness' of items (and associated foreign traditions) when they returned home. Moreover, it was that 'otherness' that made many exotica attractive in the Aegean. Therefore, regarding the reasoning behind every conversion, items should be judged individually, and on their own merit.

Panagiotopoulos concluded that, in exotica, material was more important than foreign

1607 Panagiotopoulos 2013: 49-50.
1608 Panagiotopoulos, perceptively provides [P104] as an example. This Egyptian stone vessel received multiple conversions and additions on Crete. His concept is true: some of these imitations are very close to the original prototypes. If modern researchers cannot tell them apart (as often happens nowadays; with examples of disagreements on the spreadsheet), the same would easily happen in antiquity.
1609 Panagiotopoulos 2013: 59, 62.
1610 as shown in the previous two chapters, and below in this chapter.
1611 With 'otherness', the author describes the uniqueness, unusualness, and foreign character of items; in other words, the traits that differentiated exotic items from local products, and 'labelled' them as 'luxury items', as seen in term [§ exotica].
style.\textsuperscript{1612} Again, this is only true with respect to specific items - particularly converted pieces - but not all items. The present writer considers that the latter can be seen in artefacts such as stone vase \textsuperscript{[P105]}, which was modified because the Cretans were not familiar with its style, and put 'material and re-use' over 'design'. Yet, items such as \textsuperscript{[P114]} and \textsuperscript{[P418]} were valued because of their exotic design. Otherwise, why were foreign items copied and imitated by the Aegeans at the first place, if it was not for their compelling 'exotic' style? Panagiotopoulos also suggests that when exotic items became part of everyday life, they started losing their foreign identity and became part of Aegean cultural reality.\textsuperscript{1613} To the current writer, the opposite is also true: because of the desire, rather than the need of Aegean consumerism, high-class Aegeans turned 'from Aegeans to cosmopolitan consumers' with some understanding of the wider EM culture.\textsuperscript{1614}

7.1.3 Some observations on Aegean and Aegeanising material unearthed in Egypt

Aegean and Aegeanising finds discovered in Egypt are discussed in the Annex, with special emphasis placed on Minoan material.\textsuperscript{1615} The author regards that Aegean / Minoan (-ising) material from Egypt may suggest the following: A-E gift-exchange;\textsuperscript{1616} a mercantile current between the two regions;\textsuperscript{1617} a political-diplomatic relationship, and

\begin{itemize}
\item \textsuperscript{1612} Panagiotopoulos 2013: 63-64.
\item \textsuperscript{1613} Panagiotopoulos 2013: 70.
\item \textsuperscript{1614} See [§ exotica, § wealth accumulation → prestige].
\item \textsuperscript{1615} See the Annex: 'Aegean and Aegeanising items unearthed in Egypt', and chapter Five for the Avaris frescoes.
\item \textsuperscript{1616} e.g. see the Aegeans bearing gifts to the Pharaonic Court (chapter Six).
\item \textsuperscript{1617} Discussed in the following pages under 'trade specialists: state-associated traders / freelancers /
the possible presence of Minoans in Egypt.\textsuperscript{1618} However, Aegean / Minoan items unearthed in Egypt are limited compared to Aegyptiaca unearthed in the Aegean. Nevertheless, Aegeans were portrayed bringing quantities of their wares to the Egyptian court in the Theban tombs, and Minoan frescoes decorated the palaces in Avaris.\textsuperscript{1619} All this suggests that some level of technological information and knowledge was drawn from the Aegean.

Aegean pottery, and other portable artefacts, were taken to Egypt, and they were also copied / imitated by (or inspired) Egyptian craftsmen.\textsuperscript{1620} Contrarily to Mycenaean ceramics from Egypt, which appear 'mass-produced' and the majority served as containers (thus, they were appreciated for their contents), Middle and Late Minoan pottery from Egypt is of high quality and Minoan pots and their imitations often had a ritual use, similar to their use on Crete.\textsuperscript{1621} Of course, some closed vessels were containers for foodstuffs and pharmaceutics; unless fragile (such as Kamares) and inappropriate for long-distance transportation.\textsuperscript{1622} Some middle and Late Minoan pieces were also ornamental.\textsuperscript{1623}

\footnotesize{middlemen'.
\textsuperscript{1618} A-E alliances and the Minoan presence in Egypt are discussed at the end of this chapter.\textsuperscript{1619} chapters Five and Six.
\textsuperscript{1620} For the Aegean pottery in Egypt see the Annex: 'Aegean and Aegeanising items unearthed in Egypt'. See also (table 48).
\textsuperscript{1621} Bietak 1996: 70-72; Karetsou et al. 2000a: [126]; Bietak et al. 2001: 37, 41, fig. 6, no 7); Phillips 2010: 827-828. For example, it has been suggested that Minoan rhyta and imitations of LM rhyta at Tell el-Dab'a were used for religious rituals / ceremonial drinking (see Koehl 2006: 343). In other words, Minoan culture and knowledge accompanied the vessels when these were transported to Egypt.\textsuperscript{1622} Merrillees and Winter 1972: 109-110, 115; Warren 1995: 12. See also texts \{4\}, and possibly \{8\} (depending of what the discussed vessel contained).
\textsuperscript{1623} e.g. [KM CM JdE 92304].}
A number of Middle (and some Late) Minoan imports and imitations have been discovered in the Fayum (Lisht, Lahun, Gurob, etc.). This may indicate that a local workshop specialised in the manufacture of such pottery; alternatively, travelling or sedentary (?) Minoan traders / craftsmen operated in the Fayum. The same scenario may apply in locations such as Tell el-Dab'a, etc.; even so, until now, Minoan (-ising) pottery from Tell el-Dab'a and its vicinity still remains limited.

An investigation of Egyptian archaeological contexts, from which Minoan / Aegean (-ising) material has derived, demonstrates that these finds were associated with various social strata. For example, the Avaris frescoes are linked to local palaces, and the wares of the Aegeans in the processional scenes in Thebes are offered to the Palace Court. However, Middle Minoan pottery (Kamares), despite its fine craftsmanship, has been found in various contexts, from palaces to settlement debris and private tombs. In short, a wide range of social strata owned original Kamares ware or their imitations. To Merrillees, Kamares in Egypt were a 'Middle class' phenomenon. After all, even on Crete, from where Kamares originated, this type of pottery was manufactured outside the palaces, it has been unearthed from both palatial and non palatial contexts (e.g. sanctuaries), and it is associated with medium to high social strata. This observation

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1624 See table (table 48). For the possible Aegean presence in the Fayum see also this chapter: On the razor's edge: 'Aegeans in Egypt and Egyptians in the Aegean'.
1625 [§ travelling craftsmen (and other professionals)]. This concept is in agreement with Wachsmann 2012: 182-190, although Wachsmann sees Mycenaeans and Cypriots probably settled there, based on Mycenaean and Cypriot archaeology unearthed in the area (e.g. Petrie 1890: 42-43; Hassler 2011).
1626 See the Annex: 'Regional focus: items from Avaris'.
1627 Kemp and Merrillees 1980: 284; Barrett 2009. For example, Minoan pottery derived from contexts related to domestic use in Harageh, Lahun, Lisht, etc. (table 48).
1628 Merrillees 2003: 139
1629 For Kamares manufacture outside the palaces (e.g. Quarter Mu) see Day and Wilson 1998. For
is important as it demonstrates that lower Cretan elites must have traded directly with lower Egyptian elites, and of course, with the palaces.\footnote{1630}

7.2 The protagonists of Aegean - Egyptian interactions: c 1900-1400 BC

Previously, the author discussed how important rational players are in games, and how players operate, linking game theory to A-E relations.\footnote{1631} This chapter discusses some of these players, from the ruling class, to specific extra-palatial individuals. The discussion shows how GT focuses on rational individuals, contra WST, which places emphasis on zones.

To the author, the state played a significant role in the A-E liaison.\footnote{1632} However, extra palatial individuals also served A-E interactions at socioeconomic levels.\footnote{1633} Often, palaces and extra-palatial individuals complimented each other, acting co-operatively.\footnote{1634} For example, Warburton notices that the Egyptian state hired specialised, 'freelance' traders and sailors, and their vessels, in order to transport state products

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\footnote{1630} Kamares ware availability to various social classes see Walberg 1983; 2001: 17.
\footnote{1631} See also below: 'The protagonists of A-E interactions: c 1900-1400 BC': 'Trade specialists: state-associated traders / freelancers / middlemen'.
\footnote{1632} Chapter Two: 'Game Theory and Aegean - Egyptian interactions: similarities to the World System/s approach'.
\footnote{1633} See e.g. the Knossos - Avaris inter-palatial relationship demonstrated in the Avaris frescoes as a diplomatic gift (Bietak 2007b: 86; Marinatos 2010b: 351, chapter Five), and the Aegean porters bringing gifts to the Egyptian court in the Theban wall-paintings (chapter Six).
\footnote{1634} The idea is not new. Cline's 1995 publication refers to the identities of Minoans and Mycenaeans abroad, in various EM locations.
\footnote{1634} This happened as happens in the form of co-operative games. But as the author stated in chapter Two, there was competition behind this co-operation, as in truth, all games are non-co-operative.
abroad, or import products from foreign lands.\textsuperscript{1635} Whether the Aegean palaces operated similarly remains questionable.\textsuperscript{1636}

1. The state

In WS terms, Aegean and Egyptian foreign affairs may be interpreted as a wealth-creating activity, via which, the state accumulates surplus in order to circulate it both regionally and externally, and consequently, make profit.\textsuperscript{1637} In GT terms, and in international relations, governments (primarily the heads of states, and secondarily, officials) are the major decision-makers.\textsuperscript{1638} Egyptologists often draw attention to the degree to which luxurious commodities were exchanged as 'gifts' or dowries, bribery, tax, etc., with the purpose of cementing political and diplomatic alliances and requesting mercy and protection from powerful monarchs and deities.\textsuperscript{1639} Similarly, Aegeanists emphasise the primary role of palaces in the Aegean economy.\textsuperscript{1640} Indeed, political institutions dominated long-distance maritime trade.\textsuperscript{1641}

The archaeological evidence discussed so far demonstrates the dominant role of the

\textsuperscript{1635} Warburton 2005: 180; See, for instance, the report of Wenamun (Lichtheim 1976: 224-232), a work of historical fiction which may refer to customary practices long before the twentieth / twenty-first dynasty.
\textsuperscript{1636} This may have been the case if the palaces had 'hired' freelance painters and sent them to foreign palaces; see (table 35).
\textsuperscript{1637} See chapter Two and the 'economic principles' (table 27).
\textsuperscript{1638} See the end of chapter Two, on 'Game Theory and Aegean – Egyptian relations'.
\textsuperscript{1639} See, for instance, the 'tribute' scenes discussed in chapter Six, or the Amarna correspondence (examples in notes 1408, 1408, 1420, 1423, 1462).
\textsuperscript{1640} See e.g. Younger and Rehak 2008: 173-178; Betancourt 2008 (Minoan state administration and economy); Shelmerdine and Bennet 2008 (Mycenaean state administration and economy), (tables 35, 36).
\textsuperscript{1641} Panagiotopoulos 2011: 38-40.
state in A-E liaisons. A large number of Aegyptiaca from the Aegean derived from archaeological contexts associated with the ruling class.\textsuperscript{1642} The Aegean processional scenes in Thebes reflect an inter-elite, state-to-state transaction.\textsuperscript{1643} Converted and unconverted Egyptian imports reached the Mainland via the palace elite on Crete.\textsuperscript{1644} Aegeanising wall-paintings decorated tombs of officials in the services of the state, and the palace of Malqata.\textsuperscript{1645} The Avaris frescoes are linked to the local palaces.\textsuperscript{1646} Egyptian written sources\textsuperscript{1647} demonstrate that the Egyptian state had regular commercial dealings with the Keftiu. To a large extent, the Aegean and Egyptian palatial aristocracy controlled A-E interactions. The involvement of Aegean and Egyptian sanctuaries and temples in A-E liaisons remains questionable, since, between 1900 and 1400 BC, religious activity was mainly under political / palatial control.\textsuperscript{1648} Indeed, some finds, such as [P153 & P155], [P88];\textsuperscript{1649} artefacts demonstrating the image of the Minoan Daemon,\textsuperscript{1650} the religious iconography in the Avaris frescoes; the Aegeanising rhyta from Tell el-Dab'a and their possible ceremonial use\textsuperscript{1651} and possibly the Minoan (?) metallic vessels from the Tôd treasure, etc. may suggest such a relationship.\textsuperscript{1652}

\textsuperscript{1642} See chapter Four: 'Aegyptiaca on Crete and the Archipelago'.
\textsuperscript{1643} chapter Six
\textsuperscript{1644} Phillips 2008: vol. 1: 86.
\textsuperscript{1645} chapters Three and the Annex, for a few examples. Kemp 2000 (in Karetsou et al 2000a) calls the frescoes in Malqata 'Aegeanising'.
\textsuperscript{1646} chapter Five.
\textsuperscript{1647} e.g. \{2\}, \{3\}, \{8\}, \{10\}, \{14\}.
\textsuperscript{1648} For Crete, where control of public religion and cult practices was dominated by the palace elite, see Younger and Rehak 2008: 165-170. The Egyptian temples obtained greater power and wealth in the New Kingdom, occasionally even becoming nearly independent of royal control, and their involvement in foreign trade and affairs is very likely. See Wilkinson 2000: 24-25. For the economic and administrative functions of the Egyptian temples see (\textit{tables 30-33, 40a,b}).
\textsuperscript{1649} (picture 18).
\textsuperscript{1650} e.g. [P107].
\textsuperscript{1651} e.g. [M1003].
\textsuperscript{1652} Two more comments should be added separately, as they remain hypothetical: The problematic 'Aegean (-like?)' male figure in the tomb of Puimre (see chapter Four and (\textit{table 54}) appears to offer annual contributions to the temple of Amun (an Aegean direct or indirect connection with the temple.
2. Elite households, lower elites and the middle class

International connectivity was a privilege of the elite. On Crete and the Archipelago, lower elites (e.g. the owners of the 'villas') acquired, possessed and consumed Aegyptiaca and Egyptianising items, as proved from the archaeological contexts in which such items were found. As Phillips notices, non-state related enterprise was also responsible for the transportation of some Egyptian exotica to the Mainland. Aegeaca / Minoica from Egyptian archaeological contexts suggest a similar scenario. Minoan Kamares produced outside the Minoan palaces and unearthed in Egyptian contexts associated with the lower elite and even middle class, and the Nilotic scenes in non-palatial contexts in the Aegean, tend towards the same conclusion: A-E interactions were not a strictly inter-institutional phenomenon, under the patronage of the state. In the author's mind, the role of extra-palatial individuals in A-E relationships should not be underestimated. Lower elites, and even the middle class, actively participated in A-E interactions, via networking and the market; from production to consumption, and from influencing the culture of foreign lands to absorbing and adopting foreign cultural models.

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1653 Panagiotopoulos 2011: 38.
1655 See chapter Four and the previous pages in this chapter: 'Some observations on Egyptian and Egyptianising material unearthed on Crete and in the Archipelago'. For the villas see (tables 28, 35).
3. State officials / diplomats / messengers / interpreters

It is self-evident that large-scale trade, gift-exchange and diplomacy, require negotiators, messengers, interpreters and sometimes exchange of diplomatic visits of emissaries for an alliance to be cemented.⁶⁵⁷ A variety of state-associated professionals contributed to A-E interactions. The contribution of palace-associated officials in this relationship is demonstrated in the processional scenes in the nobles' tombs in Thebes; also, the fact that some nobles had Aegeanising frescoes painted in their tombs.⁶⁵⁸ The porters in the Aegean processional scenes in Thebes are not simply bearers of commodities. They are also bearers of culture, and they act on behalf of their state(s), i.e. some must have used diplomatic skills when offering their īnw to the Egyptian court. In short, the 'wrw nw Kftyw, iww ḥryw-ib nw w3d-wr' (= chiefs of Keftiu-land (and) the Islands which are within the Great Green) most likely acted as commanders, traders, state-emissaries, interpreters, all in one.⁶⁵⁹ The project of painting Aegean frescoes in Avaris also required the assistance of negotiators, whether Minoan / Aegean state-encouraged or not.⁶⁶⁰ After all, the complex role of the Ka-pta-ra-i-im (Cretan ?) officials as traders, state emissaries and intermediaries in foreign lands is demonstrated in a text from Mari. The same text even acknowledges an interpreter.⁶⁶¹ Similar roles, with respect to

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⁶⁵⁷ As Liverani mentions, 'Diplomacy entails particular language wherein redistributive states begin to treat one another on a reciprocal basis' (Liverani 1990: 21). Panagiotopoulos (2011: 39) also sees emissaries in the EM transcultural relations.

⁶⁵⁸ For the Aegean processional scenes see chapter Six; and for the Aegeanising wall-painting decoration in Egyptian tombs see chapter Three: 'the Aegean to Egypt' and 'Egypt to the Aegean'.

⁶⁵⁹ e.g. in text {15}; and {16}, {17}, and chapter Six for the Aegean processional scenes.

⁶⁶⁰ See chapter Five: 'How the Avaris frescoes were created: a suggested project strategy'.

foreign affairs, are undertaken by Egyptian individuals. Ergo, there is no reason to deny that Minoan delegates operated similarly in Egypt.

4. Adaptable and multi-skilled workforce

Survival away from home required adaptability and where necessary, men and women practised different processions at different times in order to make a living. Warburton argues that Egyptian sailors and soldiers, when in foreign lands, acted at times as traders and farmers. Itinerant soldiers were also wood-gatherers, and occasionally worked as shepherds, when not used in expeditions. It is of course uncertain if the a3-ku-pi-ti-jo and the mi-sa-ra-jo mentioned in the Linear B tablets from Knossos wandered between professions to make a living on Crete, as the terms themselves are problematic. Similarly, a multiple profile in employment should be expected in the case of Aegeans travelling / living abroad.

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1662 e.g. Helck 1979: 435-443 for Minoan interpreters in Egypt, and (tables 30-33) for administration.
1663 Warburton 2007: 170
1664 Warburton 2005: 179. Concerning the Egyptian itinerant sailors / soldiers / traders, the author recalls the example of the Tale of the Shipwrecked Sailor: the attendant who tells his story to his master appears in the text to act as a seaman, a soldier, the king's delegate and as a trader, all in one: a) 'I had set out to the king's mines and had gone to sea in a ship of a hundred and twenty kubits in length... one hundred and twenty sailors were in it of the pick of Egypt... I shall speak of your power to the king... I shall send you ibi and ḫknw oils, laudanum, ḫsyt-spice and the incense of the temples which pleases all the gods... I shall send you ships loaded with all the treasures of Egypt...' (Lichtheim 1973: 112, 114).
1665 {24}, {25}.
5. **Trade specialists: state-associated traders / freelancers / middlemen**

The evidence (finds and texts) urges researchers to differentiate between inter-palatial diplomatic gift exchange, and trade as a commercial process associated with the market.\(^{1666}\) Trade and exchange of commodities between the Aegean and Egypt, and in the EM as a whole, was not only conducted by the kings and their officials, but also via private traders and freelancers. For instance, lower Cretan elites traded directly with lower Egyptian elites and the Egyptian Court, and the opposite is also possible.\(^{1667}\) Moreover, Panagiotopoulos sees highly-specialised freelance merchants.\(^{1668}\) In other words, A-E market transactions did not necessarily involve the full participation of state institutions, and they were not restricted to the ceremony and bureaucracy of diplomacy.\(^{1669}\) However, usually the business of freelance traders was symbiotic with the state - in a form of a GT equilibrium.\(^{1670}\) Middlemen and third parties (Aegean, Egyptian, non-Aegean, non-Egyptian nationals) were often essential in order for a market deal to be implemented, or, they were responsible for the circulation of certain commodities between the two regions.\(^{1671}\) It is noteworthy that specialists traded goods (from production to consumption and from raw materials to finished products), skills,

1666 See chapter Two: 'Economy' and chapter Four, with examples in the Annex.
1667 See above: 'Some observations of Aegean material unearthed in Egypt'.
1670 See [§ traders' multiple career, § trade, trader (and other professional) 'guilds', § traders, § trade, § travelling professionals]. In Egypt, for example, 'freelance' potters, who traded their skills and products, were obliged to give some of their production to the 'state' as a form of obligatory taxation (Warburton 1997: 237-260). The 'equilibrium' between the state and the private sector is discussed in the end of this chapter 'Searching for equilibria in Aegean - Egyptian relations'. The equilibrium between traders and the state is discussed in the end of this chapter.
1671 See [§ middleman / intermediary].
securities and services; therefore, the term 'trader' is generic and covers a wide range of activities at different levels.

6. **Craftsmen / artisans / smiths**

As seen before, Niemeier, Cline, Shaw and others, argued that travelling painters painted frescoes outside the periphery of the Aegean world, in Avaris and elsewhere. These artisans hired out their skills where well rewarded.\(^{1672}\)

Warburton suggested that itinerant specialists in search of work had operated in the EM since the Fourth millennium BC.\(^{1673}\) Craftsmen, for example, expatriated, or travelled permanently, in order to offer their services to a wealthy customer.\(^{1674}\) Occasionally, craftsmen / artisans served in foreign courts, sent there by their ruling institutions.\(^{1675}\) The latter may explain the Avaris frescoes.\(^{1676}\)

Last, the thesis has previously referred to the circulation of pattern books and other

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1672 Cline 1995b: 267; Shaw 2009; Niemeir 1984; Bootolis 2000, etc. See chapter Five, for the Avaris frescoes: 'Who painted the Avaris frescoes and why were these frescoes painted? A cornucopia of ideas'.

1673 As an example of mobility of specialist labour, he uses the example of the Jebel Arak knife from Egypt, which combines pure Elamite technique with Egyptian influences. See Warburton 2005: 177.

1674 This concept recalls modern travellers who provide various services for living (smiths, builders, etc.) and travel from place to place in search of jobs. It also recalls the modern Greek and Egyptian itinerant musicians and street vendors, who sell their skills / products during festivals. Lastly, the case of itinerant painters recalls painters during the post-Byzantine Art and Venetian Renaissance, such as Cretan El Greco (Δομήνικος Θεοτοκόπουλος). Cretan artist Dominikos Theotocopoulos (El Greco) left Crete and travelled abroad in order to paint for the elites of Rome and Toledo. He successfully 'married' the Byzantine style with western artistic tradition (see Álvarez Lopera 2005).

1675 Warburton 2005: 178

1676 See chapter Five: 'Who painted the Avaris frescoes and why were these frescoes painted? A cornucopia of ideas'.

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'know-how manuals' in the EM, to explain the Avaris frescoes and the depiction of Aegeans in the processional scenes in Thebes. It is possible that these 'teaching handbooks' circulated together with the artists / craftsmen changing hands from masters to trainees; and covered a wide range of technological and artistic knowledge, from painting to craft making. These 'know-how manuals' were also responsible for the spreading of artistic fashions and 'koinae', together with the travelling craftsmen.

Helck stated that Crete exported weaponry to Egypt, and that Minoan metalsmiths operated there. Aegean smiths in Egypt were itinerant or sedentary. Metal ingots and other metallic items from the Aegean, particularly vessels and swords, were highly appreciated by the Egyptians.

Judging from the concentration of Kamares in the Fayum, Minoan potters may have worked at Lahun, Lisht, Harageh, Gurob and elsewhere. It cannot be confirmed whether these potters, and other Aegean craftsmen in Egypt, were itinerant or not, nor is it certain whether they were linked to the state or freelance. On the other hand, the presence of Egyptian craftsmen on Crete and in the Archipelago is uncertain, but the large number of Aegyptiaca in the Aegean may partly justify such an hypothesis. For

1677 See chapter Five: 'Aegean and Aegeanising frescoes outside the Aegean' and 'Who painted the Avaris frescoes and why were these frescoes were painted? A cornucopia of ideas' and chapter Six: 'Artistic techniques: the scenes through the eyes of the artist'.
1678 Helck 1987: 267 (the discussion in 'The Function of the Minoan palaces: proceedings of the Fourth International symposium at the Swedish Institute in Athens').
1679 See, for instance, the metallic 'gifts' of the Aegeans, on the spreadsheet (CD): sheet 'Aegean processional scenes'.
1680 David 1986: 186-189, 192-193. See also (table 48).
1681 There are no written records of Egyptian craftsmen in the Aegean.
instance, Ward, in his discussion of statuette [P158] suggests that a goldsmith worked on Crete.\footnote{1682}

7. Sailors

Cline discussed the valuable role of Aegean mariners in A-E interrelations.\footnote{1683} Bietak and Marinatos argue that a Minoan navy was in the service of Thutmose III, via a special A-E treaty, and that Minoans assisted in subduing piracy in the EM.\footnote{1684} The present author suggests the hypothesis that members of the crew of the Keftiu boats\footnote{1685} may have been Aegean or Egyptian, since these boats anchored in both Aegean and Egyptian ports.\footnote{1686} Minoan and Egyptian mariners on board these boats were likely to have assisted in trade (and other) negotiations between Egypt and the Aegean, since they had to be multilingual in order to communicate with each other. Egyptian texts demonstrate the importance of mariners in Egyptian international relations. It is also likely that Minoans and Aegeans 'hired' themselves as sailors in the services of foreign kings.\footnote{1687} Private enterprise was also possible. After all, it is also likely that Mycenaeans

\footnote{1682} Ward 1961: 28-29. See also [P158] in the Annex: 'Artefacts found in the Aegean, inscribed with names of Egyptian individuals'.
\footnote{1683} Cline 1995: 274
\footnote{1684} Marinatos, N. 2011: passim; Bietak 2000a: 40. See also the following pages of this chapter, on A-E diplomatic relations.
\footnote{1685} \{1\}, \{2\}.
\footnote{1686} See chapter Four: 'texts'. The author's logic is that only a multicultural crew on these boats could guarantee the success of dealings with foreign lands. The foreign crew consisted of individuals who knew the local market better, they were able to interpret, etc.. The notion that foreign ships anchoring in Egypt had multicultural crews can be proven by the scene in the tomb of Kenamun (TT 162, eighteenth dynasty) in which both Syrian and Egyptian crew is depicted (Gilbert 2008: 62; Davies, N de G. and Faulkner 1947).
\footnote{1687} See (tables 40b, 41b).
were on board the fourteenth century BC Uluburun wreck. Moreover, the importance of the sailors in A-E relations is seen in the flotilla fresco in Thera.

8. Mercenaries / soldiers

In Ancient Egypt, the ruling class often hired individuals to work in the fields or provide military support. The evidence cannot certify that Minoans ever provided military service to the rulers of Egypt. Nonetheless, a fragment of Papyrus from Amarna shows Mycenaeans in the service of the Egyptian army; therefore, Minoans may have done the same. The possible scenarios are two: professional mercenaries (Minoans / Mycenaeans) hired their services to the rulers of Egypt; or, soldiers were sent to Egypt because of a political treaty. After all, Helck has argued that Minoan weaponry was sent to Egypt. Besides, Wachsmann advocated that Cretan capride horns were exported to Egypt for bow-making. The present author maintains that army professionals may have travelled to Egypt together with the armaments. It is reasonable to assume that native Aegeans had a certain level of expertise in the use of this

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1688 'That the ship included among its passengers at least one, and more likely two, wealthy Mycenaean merchants, envoys, or individuals of some rank is clearly shown by the several knives, spears, chisels, jewelry (primarily in the form of quartz, faience, amber, and glass pendant beads), a cloak pin, and, more importantly, two Mycenaean swords, and a pair of lentoid seals, one of which was found only this season.' (Pulak and Siegfried 1994: 24).
1689 [K117] (picture 111).
1691 However, future discoveries may surprise researchers. See also this chapter: 'Possible Aegean - Hyksos / Aegean - Egyptian state-to-state negotiations'.
1692 See notes 1528 and 1529.
1693 See also this chapter: 'Possible Aegean - Hyksos / Aegean - Egyptian state-to-state negotiations'.
1694 Helck strongly argued that the inlaid weapons found in the tomb of Ahmose in Egypt, were of Minoan manufacture. See Helck 1987: 267.

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equipment.\textsuperscript{1696} Last, concerning the Aegean, some researchers have noted that the Minoan fresco of the 'Captain of the Blacks' from Knossos, may represent a Cretan chief who leads a troop of African warriors, most likely Nubians.\textsuperscript{1697}

9. \textbf{Magico-medical practitioners}

There is archaeological and textual evidence to suggest that the Aegeans sent prescriptions and pharmaceutics to the EM, and that A-E exchanges were part of this.\textsuperscript{1698} In the Aegean, physicians were often linked to the palaces, as confirmed from Crete and Pylos.\textsuperscript{1699} The 'healing cult' in the Knossos palatial environment is manifested in the inscription \textit{pa-ja-wo-ne} (Homeric god Paeon?) on tablet KN V 52,\textsuperscript{1700} also, in the legend of Polyidos, the doctor who cured the son of King Minos.\textsuperscript{1701} Moreover, it is argued that magical-medical practices must have taken place in peak sanctuaries.\textsuperscript{1702}

Judging from the evidence,\textsuperscript{1703} the author argues that magico-medical substances were transported between the Aegean and Egypt at both inter-palatial and freelance level,

\begin{flushright}
\begin{tabular}{l}
\textsuperscript{1696} Similar to the Nubian 'Medjay' being very talented in archery and working as mercenaries in the Egyptian army (see note 950, Bianchi 2004: 66, 68, 110, 143 and Olsen 2013). \\
\textsuperscript{1697} Evans 1927: 577; Webster 1958: 65-66; Evely and Jones 1999: 191. Webster states that a Cretan probably served in the Egyptian army and upon his return to Crete he brought back ideas and wealth. See also notes 672, 870, 1476, 1531; and this chapter: 'Possible Aegean - Hyksos / Aegean - Egyptian state-to-state negotiations'. \\
\textsuperscript{1698} This is manifested after the examination of finds such as [P311], [P492], [P248], [P119], [K185], [P585], texts \{4\}, \{5\}, etc. \\
\textsuperscript{1699} For example, the Linear B tablet PY Eq 146, from Pylos mentions the existence of a palace physician, as interpreted by the word: \textit{i-ja-te} (Arnott 1966: 266; 2004: 155). \\
\textsuperscript{1700} Ventris and Chandwick (1973) \\
\textsuperscript{1701} Arnott 2004: 156 \\
\textsuperscript{1702} Peatfield 1990 \\
\textsuperscript{1703} e.g. [P311], [P119], \{4\}, \{5\}, etc.
\end{tabular}
\end{flushright}
similar to other types of commodities. Magico-medical practitioners, state-associated or freelancers, must have travelled along with the commodities. The act is not rare:

According to Cline, Egyptian medical practitioners, linked to the palaces, travelled abroad to serve foreign elites.\textsuperscript{1704} With respect to Aegean physicians in Egypt, Cline has suggested that the incantation of the London Medical Papyrus\textsuperscript{1705} was produced, partly, or as a whole, by a Minoan physician.\textsuperscript{1706}

10. Textile specialists

Women were employed in the palace of Knossos in order to produce textiles for local consumption and export - a process possibly initiated before the Final Palatial.\textsuperscript{1707} Aegean textiles were exported to Egypt.\textsuperscript{1708} Cline, Warren and others argued that itinerant Aegean weavers in Egypt inspired local painting.\textsuperscript{1709} Barber even suggested that Aegean weavers worked in the twelfth dynasty Fayum.\textsuperscript{1710} In the Bronze Age EM and Near East, weavers either worked for the state (e.g. Mari) or they were freelancers but sold their products to state firms (e.g. eighteenth dynasty Egypt).\textsuperscript{1711} In short, in the

\textsuperscript{1704} Cline 1994: 276-277: Ramesses II, for example, sent the Egyptian physician and scribe Pariamahu to the Hittite ruler at Hattusha, wishing him speedy recovery (See HDT #22G. Bryce 2003: 125).

\textsuperscript{1705} Text \{5\}.

\textsuperscript{1706} Cline 1994: 276-277. Foreign physicians must have operated in Egyptian palaces, according to Nunn, who states that there are four anonymous foreign doctors from Babylonia in the services of the Egyptian palace (Nunn 2002: number 126 - 130, pages 131-136).

\textsuperscript{1707} See (table 35), chapter Three: 'the Aegean to Egypt'.

\textsuperscript{1708} As demonstrated from the Aegean processional scenes in Thebes (chapter Six, and the Annex).

\textsuperscript{1709} Cline 1995b: 170. Warren 1995: 9; 2000: 25. Warren discusses both textiles and wooden chests for textiles. See note 706 for a number of tombs decorated with paintings which may have been inspired by Aegean textiles. See also the motifs of the Tell el-Dab'a frescoes in the Annex.

\textsuperscript{1710} Barber 1991/92: 332-333 (generic discussion) and 66-65, 351 (for evidence from the graves 11 and 600 from Gurob; tombs of Aegean weavers or textile specialists - the latter is still debatable). See note 690.

\textsuperscript{1711} Dossin 1970; Condon 1984.
author's opinion, Aegean freelance or state-associated textile specialists in Egypt must have traded their products with local elites.

11. **Other individuals**

Phillips discusses tomb robbers as responsible for the circulation of items, particularly antiques. The theory that Aegean diplomatic brides were sent to Egypt has been raised before. Intermarriages between Egyptian and Aegean commoners must have occurred. Aegean sedentary or migratory workers / servants of various specialisations may have operated in Egypt, and vice versa. Artists such as musicians and dancers transported knowledge, tradition and culture between the two peoples. Emigrants and refugees will be discussed below.

12. 'Third parties' and direct / indirect Aegean - Egyptian interactions

The author has clarified how she understands the terms 'direct' and 'indirect interactions'

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1712 Phillips 2008: vol.1: 43-44. Phillips particularly links tomb robbers to turbulent eras in Egyptian history, such as the Second Intermediate Period and the periods of eighteenth dynasty warfare.

1713 See Bietak 2005: 81; Bietak 2007b: 86 who relates the Avaris frescoes to the presence of an Aegean bride in Avaris. See also chapters Five and Six, and this chapter: 'The theory of a dynastic marriage in association with the Minoan presence in Egypt'.

1714 The term 'workers' is preferred to the term 'slaves' since there is no indication that Aegean slaves (prisoners of war) ever operated in Egypt; nor is there proof that the Africans demonstrated in the 'Captain of the Blacks' fresco at Knossos were slaves.

1715 See [P455], [P53]. What about 'prostitution'? It is uncertain whether Minoan courtesans operated in Egypt in the Second Millennium BC, as they did in Naucratis in the sixth century BC. Herodotus wrote that the prostitutes of Naucratis were peculiarly attractive and charming and briefly narrated the story of Charaxus, who travelled to Naucratis to purchase the freedom of a certain Rhodopis, a Thracian slave and courtesan (Herodotus 2,135).

1716 See the end of this chapter: 'On the razor's edge: Aegeans in Egypt and Egyptians in the Aegean'.

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in the Introduction. Indirect interactions automatically raise the need to briefly discuss the contribution of 'third parties' in A-E relations, when these third parties are a state / institution, people, diaspora or gateway community outside Egypt and the Aegean. For instance, as seen previously, Syria-Palestine and Cyprus played an important role in the Aegean - Avarian interactions. Any Aegeans or Egyptians outside the geographical borders of the Aegean and Egypt must have also encouraged indirect A-E trade and exchange. Often, third parties played the role of the middleman in the A-E liaison. Moreover, in terms of seafaring, the discussion of the Aegean ↔ Egyptian maritime routes suggests that the trip between the two regions could be both direct and indirect, at least from the early eighteenth dynasty onward. Stops at naval stations across the EM coast were essential when the indirect maritime route was preferred due to weather phenomena or due to the lack of the appropriate ships for direct seafaring.

The discussion of the role of the third parties in the A-E interactions suggests the following: in truth, in the case of the A-E liaison, it is often impossible to comprehend direct contact without indirect contact. However, the level of interference of the third parties (i.e. the 'outsiders') in the A-E liaison, and in fact, the question of how 'direct' and / or 'indirect' this contact was, is dependent upon historical circumstances. For

1717 [§ diaspora, § gateway]. For the definition of 'third parties' and for how the author understands the terms 'direct' and 'indirect interactions' see the Introduction: 'Some clarifications on terminology'.
1718 See above, chapter Five: 'the Aegean interactions with Avaris addressed historically', and (tables 28-39).
1719 See e.g. chapter Six: 'What the Aegean Processional Scenes tell researchers about the Aegeans': 'point 7; and in the same chapter: Remarks on the Aegean processional scenes in Thebes': 'point 9'.
1720 See above: The Protagonists of A-E interactions (c 1900-1400 BC): 'Trade specialists: state-associated traders / freelancers / middlemen'. See also [§ middleman / intermediary].
1721 See chapter Three: 'Aegean ↔ Egypt: Trade and contact routes'.

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instance, to the author's mind, a simultaneously direct and indirect contact in A-E relations, in terms of both mechanisms of exchange and seafaring, is seen in the early and mid eighteenth dynasty.\textsuperscript{1722} Overall, between c 1900-1400 BC, both direct and indirect contact must have applied - at least in terms of trade and exchange - as the evidence is bidirectional.\textsuperscript{1723} Why? Because, as seen before, in the WST and GT, core-periphery and player-to-player interactions and transcultural networking operate both directly and indirectly.\textsuperscript{1724} In other words, inter-system transference of commodities, knowledge and culture occurs both directly and indirectly; and this is also applicable in A-E interactions.

7.3 \textbf{On the razor's edge: Aegeans in Egypt and Egyptians in the Aegean}

This discussion is divided into the following topics: an examination of how the Aegeans came to be present in Egypt and the Egyptians in the Aegean, possible A-E alliances and diplomatic treaties, and the theory of an A-E dynastic marriage.

7.3.1 \textbf{Aegeans in Egypt and Egyptians in the Aegean: How mobility operated}

The sporadic Aegean visits to Egypt and Egyptian visits to the Aegean, and the

\textsuperscript{1722} See Conclusions: 'Research question Seven', and chapters Five, Six.
\textsuperscript{1723} With the word 'evidence' the author implies the archaeological and textual evidence. See chapters Four, Five and Six.
\textsuperscript{1724} See (table 27), Chapter Two: 'Game Theory and Aegean - Egyptian interactions: similarities to the World System/s approach', and (table 27).
sedentary presence of Aegeans in Egypt and Egyptians in the Aegean should be differentiated. Semi-permanent residence in foreign lands should also be taken into account. The author regards that in reality, the line between a visit and a semi-permanent residence in a foreign country is not easy to distinguish. In the Bronze Age, trips were long and difficult, regular stops were needed, and often travellers had to stop in foreign lands for a few months, or even years, before they returned to their country. A sedentary presence, however, signifies that an individual or a group of people were settled in a foreign land with the intention of permanent residence; in this case, Egypt or the Aegean. The terms 'diaspora' and 'gateway' indicate the settlement of a group of people in a foreign land.

7.3.1a Visitors and travellers

The author maintains that the Aegeans visited Egypt regularly. Some Minoica / Aegeaca in Egypt and Aegyptiaca in the Aegean must have been taken there by visiting Aegeans and Egyptians respectively. The exchange of visits was both state-encouraged and personal. The flotilla fresco depicts the Theran ships visiting foreign lands, among

1725 In agreement with Panagiotopoulos 2011: 42. See, for example, the report of Wenamun (table 40b), in which Wenamun spent a significant number of years travelling in foreign lands, and Moran 1992: 90-91, 112-113 (EA 28, EA 35). Also, from the Odyssey (Book XIV: 285-286): 'ἔνθα μὲν ἑπτάνεις μένον αὐτόθι, πολλὰ δ’ ἄγερα χρήματ’ ἀν’ Ἀιγυπτίως ἄνδρας: δίδοσαν γὰρ ἄπαντες.' (original text by Perseus: http://www.perseus.tufts.edu/hopper/ translated by the author of this thesis as 'I stayed there for seven years and I gathered many goods among the Egyptians, since they all offered me something').

1726 [§ gateway, § diaspora].

1727 See chapter Four, with numerous examples.

1728 [K117] (picture 111).
them, Egypt.\textsuperscript{1729} The Avaris frescoes were painted by visiting Aegean artists and the processional scenes in Thebes demonstrate visiting Aegeans.\textsuperscript{1730} Other visiting individuals may have been soldiers, seamen, craftsmen, traders, physicians, etc.\textsuperscript{1731} If \textit{Prw-nfr} is placed at Tell el-Dab'a, regardless the exact interpretation of the 'Keftiu ships', it is likely that the Aegeans visited Avaris regularly.\textsuperscript{1732} Cline sees an Egyptian diplomatic embassy sent to the Aegean (Kom el-Hetan list)\textsuperscript{1733} and MacGillivray also implies that Egyptians and Nubians visited Crete.\textsuperscript{1734} The exchange of culture and knowledge between locals and foreigners must have occurred via everyday activities. For instance, entertainment (dance, music, festivals, etc.) played a primary role in the A-E relationships. Board games such as the 'zatrikon' from Knossos,\textsuperscript{1735} which demonstrate elements of an EM koiné, brought locals and foreigners together and encouraged them to share their ideas and knowledge.\textsuperscript{1736}

\textbf{7.3.1b Sedentary population: Aegeans in Egypt?}

A number of researchers have so far suggested that Minoans / Aegeans were sedentary in Egypt. For instance, Barber suspected the presence of Minoans in the Fayum in the

\begin{itemize}
\item \textsuperscript{1729} See notes 1181 and 1507.
\item \textsuperscript{1730} See chapters Five and Six.
\item \textsuperscript{1731} See this chapter: 'The protagonists of A-E interactions: c 1900-1400 BC'.
\item \textsuperscript{1732} For \textit{Prw-nfr} see chapter Five: 'The Aegean interactions with Avaris addressed historically' and Seven: 'Possible A-E alliances and diplomatic treaties'.
\item \textsuperscript{1733} Text \{23\}
\item \textsuperscript{1734} See this chapter: 'Possible Aegean - Hyksos / Aegean - Egyptian state-to-state negotiations'.
\item \textsuperscript{1735} 'ζατρίκιο' (plate A82).
\item \textsuperscript{1736} For the 'zatrikon (type of chess) see Karetsou et al. 2000a: 149-151, with further references. Similar board games were played in Egypt. See e.g. the Egyptian senet or the game of 'Dogs and Jackals' (Hayes 1953: 250: Beni-Hasan 'tip-cat'; ibid: fig. 59: senet from Old Kingdom tomb; 1959: 25-26, with more Egyptian examples).
\end{itemize}
twelfth dynasty, but on limited and problematic evidence. To Kemp and Merrillees, foreigners, Syrians and Minoans were domiciled and employed at sites such as Lahun, where Minoan pottery was found; and this is how the increased number of Aegeaca / Minoica can be explained in the area.

The hypothesis over a Minoan presence in Memphis was also raised. For instance, Bourriau and Eriksson discussed the Minoan presence in Memphis in the first half of the eighteenth dynasty. Additionally, Belova stated that, if the Minoans painted the frescoes at Avaris, they must have been established in the Delta a lot earlier. Moreover, she suggested that there was a Minoan colony in Memphis. Memphis, according to the same author, was popular with foreigners, and the name of its main temple produced the name Αἴγυπτος (Aigyptos), in other words Memphis equalled Egypt. Belova also stated that during the 2001/02 excavation at Kom Tuman, a Hellenic colony (twenty-sixth dynasty) was unearthed in Memphis, and that this colony was probably developed in the place of the Aegean Memphite settlement of the eighteenth dynasty. According to the same researcher, the name of that Aegean colony may have been Kfty.w, the term designating 'both the metropolis of one of the Aegean islands and the Aegean colony in

1737 (map VIX)
1738 Barber 1991: 351-352, cf Warren 1995: 9; 2000. Barber (1991: 64-65; 351) initially argued that an Aegean emigrant was buried in tomb 11 at Gurob, since wool was found there, but it is now radiocarbon-dated to the Roman Period. She Phillips 2010: 828.
1739 Kemp and Merrillees 1980: 285. See chapter Four: 'Aegean and Aegeanising items unearthed in Egypt', with Aegeaca / Minoica from the Fayum.
1740 Bourriau and Eriksson 1997; especially from Ahmose I to Thutmose III.
1741 Belova 2004: 2. (map VIX) [§ colonisation, § colonialism].
1742 Belova 2004: 4. Whether one should link the Linear B tablet KN Db 1105 +1446 {25} from Knossos to a Minoan presence in Memphis remains problematic.
1743 Belova 2004: 4
the Nile Delta', a scenario possibly expressed on the grounds that Prw-nfr was placed in Memphis.\textsuperscript{1744}

However, if, according to studies of the Austrian mission Prw-nfr is placed not in Memphis, as it was previously assumed, but in Avaris in the Nile Delta,\textsuperscript{1745} the Aegean presence there is strengthened by the discovery of the Minoan / Aegean frescoes that decorated the local palaces.\textsuperscript{1746} To MacGillivray, Prw-nfr was easily accessible from the Avaris palaces, the Keftiu ships anchored there from the end of LM IA and throughout LM IB,\textsuperscript{1747} and that is why the Keftiu are reported to come from the 'Great Green' in the tomb of Useramun.\textsuperscript{1748} MacGillivray even suggests that palace [F] at Tell el-Dab'a was erected as a Keftiu post in Egypt's royal shipyards and Marinatos has expressed a similar theory to explain the Avaris frescoes.\textsuperscript{1749} Wachsmann also sees a Minoan settlement in Avaris from the late Hyksos period onwards. He also maintains that Minoan craftsmen operated in Avaris, suggesting that Ahhotep's silver ship model [M1009] was made by a Minoan craftsman who lived in Avaris, or was taken to Avaris for Minoans living there.\textsuperscript{1750} Moreover, Bietak, according to his preferred chronology,\textsuperscript{1751} suspects the Minoan presence in Avaris in the reign of Hatshepsut / Thutmose III (and

\begin{itemize}
\item \textsuperscript{1744} Belova 2004: 4
\item \textsuperscript{1745} (map VIX)
\item \textsuperscript{1746} See chapter Three. For Prw-nfr see chapter Five: 'The Aegean interactions with Avaris addressed historically' and Seven: 'Possible A-E alliances and diplomatic treaties' and Bietak 2009.
\item \textsuperscript{1747} (table 16)
\item \textsuperscript{1748} MacGillivray 2009: 165
\item \textsuperscript{1749} MacGillivray 2009; Marinatos, N. 2011. See also chapter Five for palace [F] and the Tell el-Dab'a frescoes.
\item \textsuperscript{1750} Wachsmann 2010: 36-37. See also chapter Four: 'Aegean and Aegeanising items unearthed in Egypt'; 'Avaris'.
\item \textsuperscript{1751} (tables 7, 8)
\end{itemize}
specifically at about the same time when the processional scenes in the tomb of
Useramun were painted in Thebes), considering that a) he justifies the Tell el-Dab'a
frescoes with the presence of a Minoan princess in the Avaris palaces; and b) he links
$Prw-nfr$ and the tests mentioning Keftiu ships to Tell el-Dab'a.

Additionally, Duhoux has examined the Aegean processional scenes in which the
Minoans appear arriving from the Isles in the Midst of the Great Green, arguing that
'$Kftyw'$ and '$iww\ hryw-ib\ nw\ w3\d-wr'$ identify the same geographical area. Having
studied a number of texts, he has also interpreted the '$w3\d-wr'$ (Great Green) as the Nile
Delta, the Mediterranean, or the Red Sea, depending on date, stating that only in the
Ptolemaic period '$w3\d-wr'$ equalled the Mediterranean. He also suggests that the
'Isles in the Midst of the Great Green' should be placed explicitly in the Delta and that
the Aegeans in the processional scene in the tomb of Useramun appear coming from the
Delta. On the basis of the Aegean processional scenes, the Thutmoside date of the
Avaris frescoes, and texts such as $\{20\}$, he argues that emigrants from Crete and the

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1752 See chapter Five: 'Stratigraphy and date of the Avaris frescoes' and 'Who painted the Avaris
frescoes and why were these frescoes painted? A cornucopia of ideas'.
1753 Texts $\{1\}$, $\{2\}$.
1754 $\{3\}$, $\{15\}$, $\{18\}$.
1755 See Wilson 1997: 615 (Ptol. Lexikon) for the term.
1756 For the terms see chapter Four: 'terminology'. For '$w3\d-wr'$ = the Mediterranean in the Ptolemaic
texts see Duhoux 2003: 129-133. Duhoux, mainly based on Egyptian inscriptions, has suggested that
the term '$w3\d-wr$' equals the Nile within its Delta (see 2003: 46-52; 133-144 and 148-154, 157-161
for his interpretation of the term $iww\ hryw-ib\ nw\ w3\d-wr$) even proposing the existence of a Minoan
'colony' on an island in the Nile delta (2003: 148-154, 157-161 and especially chapters Five and Six).
The reasons he does not accept the relation of the Great Green with the Mediterranean are illustrated
in pages 129-134. He writes: 'Il résulte de tout ce qui précède que, à l’époque de Touthmosis III, le
“Grand Vert” désigné le Nil, avec sa vallée et son Delta, dans un grand nombre d’emplois. À cette
même période, il peut aussi (mais moins souvent) se référer à la mer Rouge’ (Duhoux 2003: 193).
The concept is not new. Vandersleyen first suggested that the Great Green was the Delta (1999: 110-
111). For the term 'Islands in the Midst of the Sea / Great Green' which is said to signify the Aegean
Islands or the Nile Delta or the Red Sea or the Mediterranean sea see Duhoux 2003: 43-144.
Cyclades inhabited the centre of the Delta after moving there post-eruption, even stating that the Minoans were settled in Egypt from the Hyksos period onwards, or moved there sometime c 1470-1450 BC. According to Duhoux, the Minoans were settled in the Delta for commercial and diplomatic reasons, and/or, because they were motivated by an A-E dynastic marriage. Their settlement there influenced the rest of the region.

Is a sedentary presence of Aegeans/Minoans in Avaris realistic? As seen in chapter Four, other than the impressive Aegean frescoes there, not a great number of genuine Aegeaca/Minoica have been discovered in the citadel, nor in Egypt as a whole.

Sometimes archaeological finds (and the lack thereof) can be misleading. For instance, thanks to the discovery of Old Assyrian texts on baked-clay tablets, it is now known that in the Middle Bronze Age, Assyrians resided in Kültepe (in Anatolia, modern Turkey), interacting and intermarrying with the Anatolians. Yet, without the texts, the Assyrian presence in the city quarter of Kârum Kaneš in Kültepe would be untraceable by researchers. This is because there was little evidence of Assyrian material culture to

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1758 Duhoux 2003: 212, 215; see below, this chapter: 'The theory of a dynastic marriage in association with the Minoan presence in Egypt'.
1759 Duhoux 2003: 211-212
1760 See the Annex: 'Aegean and Aegeanising items unearthed in Egypt'.
1761 The Assyrian colony of merchants (Kârum) in Kültepe (Kaneš) operated between early 20th to 18th centuries BC. The texts in question are the so-called 'Kültepe texts', written in the Old Assyrian dialect of Akkadian. They record the operation of Assyrian trade activity in the region. Many of these tablets (over 1000) were discovered in 1925 by Bedřich Hrozný in the domestic area of the Kârum. Nearly 24,000 have been discovered so far (Michel 2011). For the Kültepe texts see Teissier 1994; Michel 2003, 2006 and 2011; Kulakoğlu 2011: 1028; Michel 2011: 319-329. For the life and activities of Assyrians in Kaneš see Michel 2011: 327-329.
confirm the residence of Assyrians in the region. For instance, the houses in which the Assyrians lived were of the typically Anatolian style, and Assyrian pottery was scarce in the area.\textsuperscript{1762} Similarly, the limited Minoan / Aegean pottery in Egypt, and especially in the Delta region, does not signify that there was no significant presence of Aegeans residing and operating there. In fact, it is rather interesting that in the case-study of Kültepe, the Assyrian merchant colony of Kârum Kaneš was in close co-operation with local officials. The merchants of Kârum Kaneš, who conducted trade with the locals and their 'home' city state of Assur on the Tigris, worked both privately and for the benefit of the government in Assur.\textsuperscript{1763} Could it be that any Aegeans present in Egypt functioned in a similar manner?

From the viewpoint of the present author, it is possible that Minoans / Aegeans were settled in Egypt, with limitations.\textsuperscript{1764} First of all, if 'Keftiu ships' anchored in Avaris, or in other Egyptian ports, and since Aegeans visited the Egyptian court regularly (see Aegean processional scenes), it is sensible to conclude that an Aegean community was established permanently in Egypt in order to assist in the A-E exchange process.\textsuperscript{1765} A-E bi-directional trade; politics and diplomacy; and the transference of cult, culture and technology (generated by both the state and the extra-institutional individuals) dictate, at

\textsuperscript{1762} Many of these houses were largely destroyed by fire and abandoned by their owners c. 1830 BC. For the unearthed Assyrian material culture see Kutlu 1963; Kulakoğlu 2011: 1019-1030; Michel 2011: 313-318.
\textsuperscript{1763} Michel 2011: 319-329. See e.g. Donbaz 2005: passim discussing an Old Assyrian treaty with the Anatolians in Kaneš.
\textsuperscript{1764} For the limitations in this theory, see the following pages: 'Why does the archaeological evidence not justify the Aegean sedentary presence in Egypt more strongly?'.
\textsuperscript{1765} See chapter Five: 'The Aegean interactions with Avaris addressed historically' for the identification of Prw-nfr with Avaris (Tell el-Dab'a), the Avaris frescoes and Bietak's research on the topic; Bietak 2009: 15-17; Forstner-Müller 2009: 10-13 and note 1230.
least, a semi-permanent Aegean presence in Egypt, if not a permanent one. In the author's view, if some Aegeans were settled in Egypt, they spoke both 'Aegean' and 'Egyptian' and were familiar with both the local and the Aegean administrative system. These individuals would operate as a 'link' between the Aegean and Egyptian community. In other words, they functioned as a gateway community and / or a diaspora. School text could refer to the names of some of these Aegeans.

The archaeological evidence to prove an Aegean presence in Egypt is indeed sporadic. However, the Fayum demonstrates a concentration of Aegean imported ceramics, and some Minoanising / Aegeanising ones. The operation of Minoan traders and craftsmen in the area should also be considered. If a market for these items was created in Egypt, this could be partly because there were Minoans living there, probably from the twelfth dynasty onwards. Moreover, as mentioned previously, Aegean professionals such as missionaries, mercenaries, sailors, artists, etc., must have spent some time in Egypt, residing there semi-permanently or permanently, and even intermarrying with the locals, thus producing offspring who were first and second generation Egyptians (i.e. Aegeans in ancestry and ethnic descent but significantly Egyptianised).

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1766 Semi-permanent or permanent residence in foreign lands is crucial in international politics. See e.g. Nierop 1994: 64. Even from the GT point of view, it is impossible to see diplomatic negotiations without diplomats and commissaries (as discussed previously, with the presentation of GT players in A-E relations).

1767 As it will be shown below ("Why does the archaeological evidence not justify the Aegean sedentary presence in Egypt more strongly?"), most likely, they were both assimilated and integrated in local society [§ assimilation, § integration].

1768 As notices by Cline 1995b: 269, and 15 years after Cline's paper, this is still the case.

1769 (table 48).

1770 See this chapter: 'The protagonists of A-E interactions: c 1900-1400 BC'.
Moreover, the author attests that Aegeans, to some extent, were settled in Avaris on the basis of the Aegeaca / Minoica discovered there; the possible relation of the family of Ahhotep with the Aegean; the Avaris frescoes; and the 'Keftiu ships' in association with Prw-nfr. All these suggest that there was an Aegean - Minoan community living semi-permanently or permanently in Avaris, and that the citadel was frequently visited by Aegeans. Within the plethora of chronological discrepancies suggested by researchers for the dating of the frescoes and other Aegeaca / Minoica discovered in Avaris, it is difficult to suggest when exactly an Aegean community first settled. However, the suggested dates for the various Aegean archaeological finds (including the frescoes), range from the Hyksos to the Thutmoside period. Opinions vary on the basis of chronological preferences, but to the author's mind, it is possible that the Aegeans were present in Avaris both under Hyksos rule and in the early eighteenth dynasty, since they were present in other EM countries at, or even before this time. Moreover, the First Millennium case-study of Naucratis demonstrates that Greco - Egyptian communities could be symbiotic in Egypt.

See the Annex: 'Aegean and Aegeanising items unearthed in Egypt': 'Avaris'.
See the Annex: 'Aegean and Aegeanising items unearthed in Egypt': 'Avaris' and this chapter: 'The theory of a dynastic marriage in association with the Minoan presence in Egypt'.
See chapter Four: 'Texts': 'Terminology'. For Prw-nfr in Avaris see chapter Five: 'The Aegean interactions with Avaris addressed historically'.
Niemeyer and Niemeier 2000: 764-765 and chapter Five: 'Aegean and Aegeanising frescoes outside the Aegean'. See also 'Mari' in (tables 28, 34).
Naucratis (modern Kom Gieif), the Greek naval base of the archaic era, was founded in the heart of the Delta (7th-6th century BC) under special permission given by the Pharaoh Amasis, on the basis of a Greco-Egyptian arrangement which served the commercial and military interests of both sides. Naucratis acted as a symbiotic link between the Greek and Egyptian culture. For the literary evidence, see Herodotus 2,154. For the archaeology, see Leonard & Coulson 1979, 1982 and Leonard 1997.
7.3.1c Why does the archaeological evidence not justify the Aegean sedentary presence in Egypt more strongly?

These are a few hypotheses suggested by the author:

- The related archaeological (and even textual) material has not yet been discovered.

- It is possible that only a small number of Minoans / Aegeans lived permanently in Egypt; possibly less than a thousand or a few hundred. The fewer present, the less material culture they left behind.

- The Aegean population density in Egypt was low. In places such as Avaris, the Aegean population density was probably higher, but not so high for the Aegeans to leave significant archaeological material behind.

- Alternatively, the Aegeans lived in Egypt, but were moving constantly, due to life circumstances (professional needs, regular warfare, natural disasters, famine, recession, animosity from the local community, refuge, etc.). Under those conditions, their personal belongings were limited. The Aegeans may have

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1777 The author wishes to thank Louise Hitchcock (personal communication, May 2011) for the generated discussion about trauma, migration, and performativity in the Late Bronze Age Mediterranean, which stimulated these remarks.

1778 Future research and excavations in areas such as Tell el-Dab'a may surprise researchers.
migrated to Egypt due to any of the previously-mentioned life difficulties.\textsuperscript{1779}

- They became 'Egyptianised', 'assimilated', especially if A-E intermarriages occurred. The 'links' with their motherland were loose, and their cult and cultural identity was partly lost. They were 'adjusted' into a new reality. Yet, they also added to the culture of the host society ('integration').\textsuperscript{1780} They were selective in what 'Aegean' commodities they used in their everyday life, and most of these commodities were perishable. The difficulty of having products shipped from the motherland, in an environment of regular warfare, should also be considered.

\section*{7.3.1.d Sedentary population: Egyptians on Crete and in the Archipelago?}

It is possible that some Aegyptiaca from Crete were taken there by visiting Egyptians. However, the evidence to suggest that Egyptians were settled semi-permanently or permanently in the Aegean remains scarce and problematic. Linear B tablets \{24\}, \{25\}, mentioning an \textit{a3-ku-pi-ti-jo} and a \textit{mi-sa-ra-jo} may, or may not belong to Egyptian

\textsuperscript{1779} Hypothetically speaking, even the Thera eruption could have made the Aegeans (particularly any surviving Therans and other inhabitants of Aegean regions affected by this natural catastrophe) relocate to Egypt and the Near East. This is why establishing a 'secure' date for the Thera eruption is important. Because this eruption could be linked to movements of populations in the EM.

\textsuperscript{1780} [\$ assimilation, \$ integration]. An explanation: if the Aegeans in Egypt were 'Egyptianised', they were assimilated, thus, indistinguishable or not easily distinguished within the 'dominant', host societies in the Hyksos / Egyptian urban centres. 'Integration' means that, although assimilated, the Aegeans did offer to the host society and added to the existing culture: for instance, they provided the inspiration for the 'flying gallop' in Egyptian art, and even, painted Minoan frescoes at Tell el-Dab'a. Therefore, assimilation and integration can co-exist in the hypothetical scenario of the (semi-)permanent presence of Aegeans in Egypt, and the one notion does not contradict the other. See also below, this chapter: 'The theory of a dynastic marriage in association with the Minoan presence in Egypt'. After all, the Hyksos, Nubians and others were highly Egyptianised at that time.
individuals, depending on interpretation. If these names demonstrate an Egyptian origin, it is likely that a limited number of Egyptians lived and worked in the Aegean.

Phillips notices that the royal tomb of Isopata has provided more Egyptian material than Minoan, but she does not think that it belonged to an Egyptian or Egyptophile. To MacGillivray, the tomb belonged to a Mycenaean 'Keftiu' who dealt with Mencheperreseneb. The present writer feels that further investigation is needed to define the identity of the owner of this tomb and explain why so many of the owner's burial goods were Egyptian and Egyptianising. Without further evidence it may never be possible to explain the plethora of Aegyptiaca in this tomb.

The author maintains that MacGillivray's hypothesis that, in LM IB, Nubian slaves or mercenaries in the services of the Egyptian court, helped the Minoans re-build the palaces, should be considered if plausible archaeological material (which confirms the nature of the Egyptian presence in the Aegean) comes to light. The fresco of the 'African' from Thera may also suggest that the Aegeans were familiar with the African physical characteristics. However, it does not confirm that North Africans had visited Thera, since the Therans may have seen these people when sailing away from home. Bernal's theories about the alleged Egyptian hegemony over the Aegean world are

1781 i.e. depending on whether they are considered as personal names, adjectives demonstrating origin, or both. See chapter Four: 'Aegean texts'.
1782 Phillips 2008, vol. 2: 129. e.g. [P245], [P252], etc.
1783 See MacGillivray 2009: 166-168, and especially 169. See also chapter Seven: 'Possible Aegean - Hyksos / Aegean - Egyptian state-to-state negotiations'. For Mencheperreseneb see chapter Four.
1784 Marinatos, N. 1988: passim
1785 See the 'Lybia fresco' and the 'fleece fresco' scenes in [K117] and notes 1181 and 1507.
7.3.1.e  Aegean - Egyptian relationships: Aspects of colonialism and colonisation

For the reasons mentioned in the previous pages, to the author's view, the archaeological evidence from Crete, the Archipelago and Egypt does not fully justify an organised Minoan / Aegean colony in Egypt, nor of course an Egyptian colony in the Aegean. The author can only justify the presence of a limited number of Minoan / Aegean individuals in Egypt, and probably, but not certainly, a handful of Egyptian individuals in the Aegean. These were mainly visitors and travellers. A few may have been semi-sedentary or sedentary, or even 'assimilated', Egyptianised / Aegeanised or second generation Aegeans / Egyptians. However, the semi-permanent or permanent residence of a limited number of individuals in a foreign land, and the sporadic visits to this land, do not signify the establishment of a colony there. In other words, a minority in a foreign region does not imply colonialism. Moreover, a colony is a politically organised community, with bonds to the motherland. Whether - and how - any Aegeans in Egypt and any Egyptians in the Aegean remained in contact with the motherland; and the form of the linkage between migrants and motherland, remain an entirely hypothetical scenario. Even so, if some of the 'Keftiu' in the Aegean processional scenes

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1787  The author understands and discusses the terms as in the terminology [§ colonisation, § colonialism]. The author's view is contra Duhoux 2003. See above, this chapter: '3) Why does the archaeological evidence not justify the Aegean sedentary presence in Egypt more strongly?' and '5) Sedentary population: Egyptian on Crete and in the Archipelago'.
1788  See above, this chapter: '3) Why does the archaeological evidence not justify the Aegean sedentary presence in Egypt more strongly?' and '5) Sedentary population: Egyptian on Crete and in the Archipelago'.

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in Thebes do come from the Delta, this opens a discussion about the possible political/economic links between any Aegean migrants in Egypt and the Aegean motherland itself.\textsuperscript{1789}

\textbf{7.2 Possible Aegean - Hyksos / Aegean - Egyptian state-to-state negotiations}

\textbf{7.2.1 Aspects of Aegean - Egyptian diplomacy}

International-level diplomacy is a skill that any politician, ancient or modern, ought to possess and practice in peace or war.\textsuperscript{1790} The purpose of any state is to expand its zones of influence and control,\textsuperscript{1791} whereas in GT, objective is the best possible payoff.\textsuperscript{1792} To accumulate profit, Egyptian and Aegean rulers did not rely solely on trade and gift-exchange.\textsuperscript{1793} They often took other economic, commercial and military measures (e.g. taxation, trade expeditions, warfare, etc.). Additionally, they used diplomacy to establish bridges of co-operation and create powerful strategic alliances.\textsuperscript{1794} The Aegean and Egyptian states negotiated with each other (bilateral diplomacy) and with third nations.


\textsuperscript{1790} [§ diplomacy]. Rationality in decision making is also vital, as previously mentioned.

\textsuperscript{1791} Such a purpose is among the key principles of core-periphery relations, investigated previously in this thesis. See chapter Two.

\textsuperscript{1792} See chapter Two: 'Game Theory and Aegean - Egyptian interactions: similarities to the World System/s approach'.

\textsuperscript{1793} See the economic principles in (table 27).

\textsuperscript{1794} It is worth stating that in Egypt, written records such as the Amarna Letters (Moran 1992) demonstrate the use of diplomacy in international politics and economics. No records of Aegean diplomacy have survived from Crete, however this does not mean that the Cretan local rulers did not practice diplomacy.
(multilateral diplomacy), as is dictated by GT.\textsuperscript{1795} Yet, as the author has shown, interpreting the nature of A-E alliances depends on fluid chronological data.\textsuperscript{1796}

Judging from the archaeological evidence and the date of the Aegean processional scenes,\textsuperscript{1797} the peak of A-E diplomatic relations occurred in the eighteenth dynasty, even though, earlier, A-H diplomatic relations must have also operated, directly or indirectly.\textsuperscript{1798} Aegean and Egyptian diplomatic relations were accomplished via reciprocal gift-offering, exchange of favours, services and embassy visits. After all, Aegean - Theban bilateral diplomatic activity is seen in the Theban processional scenes.\textsuperscript{1799} The high officials ('wrw') of the Aegean embassy in Thebes probably operated as ambassadors and diplomats in the name of the Aegean state, and were responsible for political and trade / exchange activities between the two parties.\textsuperscript{1800} Moreover, the Avaris frescoes and the Aegeanising murals in Egypt operated as diplomatic tools, as, their presence there 'bonded' the local elite with the Aegean.\textsuperscript{1801} Exchanged luxury items were also means of diplomacy, with limitations.\textsuperscript{1802}

\textsuperscript{1795} See 'the discussion about coalitions, co-operative and non-co-operative games in chapter Two: 'Game Theory and Aegean - Egyptian interactions: similarities to the World System/s approach'.

\textsuperscript{1796} See chapter One: 'Analysis'.

\textsuperscript{1797} (Table 53).

\textsuperscript{1798} See the evidence in chapters Four, Five and Six.

\textsuperscript{1799} For the Aegean processional scenes in the private tombs in Thebes see chapter Four.

\textsuperscript{1800} See above, this chapter: 'State officials / diplomats / messengers / interpreters'.

\textsuperscript{1801} See chapters Three ('the Aegean to Egypt') and Five. The frescoes' diplomatic character is apparent whether these frescoes are seen as a 'product' of a diplomatic marriage, or as a 'product' of a special event, or, even as emblems of a special Minoan treaty with the regions in which these frescoes were painted.

\textsuperscript{1802} After all, the Aegean processional scenes in Thebes (chapter Six) demonstrate some of these Aegeaca / Minoica offered to the Egyptian state. Limitations: For example, [\textsuperscript{P163}] did not necessarily serve diplomatic purposes as it was shown in chapter One: 'What do the latest publications (from 2010 onwards) suggest about Aegean -Egyptian chronological links?' and chapter Four: 'Artefacts found in the Aegean, inscribed with names of Egyptian individuals').
7.2.2 Possible Aegean - Egyptian alliances and treaties

It is almost impossible to investigate whether the rulers of the Egyptian eleventh, twelfth, thirteenth and non-Egyptian fourteenth dynasty maintained any special alliances with the Aegeans, as evidence is extremely sporadic. However, some suggestions can be made with regards to possible alliances and / or diplomatic marriages between the Aegeans and the Hyksos. Also, relations of the Theban seventeenth and eighteen dynasties with the Aegean are better documented with evidence. Therefore, the following discussions (7.2.2 and 7.2.3) mainly focus on possible A-E alliances in the late Second Intermediate Period and the early New Kingdom.

A-H / A-E alliances may have been political, military, commercial or other. The nature of the presence of Aegeans in Egypt is dependent upon these agreements. A-H / A-E treaties and their exact terms are hypothetical. It is also unknown who exactly was involved in such treaties, in geographical terms (Crete only? The Archipelago? Thera only?, Upper Egypt? Lower Egypt? The Hyksos? Other Asiatics? etc.). However, the Theban processional scenes and some texts may reflect such treaties. Moreover, in the author's view, the existence of Minoan (-ising) frescoes in palaces outside the Aegean may signify that these regions were somehow politically, diplomatically or

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1803 For instance, even if the problematic (note 1738) scenario of Aegean presence in the Fayum in the twelfth dynasty is accepted, an Aegean minority in the Fayum does not immediately signify an alliance between the Aegeans and the Egyptian rulers of this dynasty.
1804 The alliance members are down to fluid chronological data. See chapter One: 'Analysis'.
1805 e.g. [15].
1806 See chapters Five, Six and chapter Four: 'texts'.
commercially affiliated with the Aegean, over the course of time.\textsuperscript{1807}

It is not known what position the Aegeans held towards the Hyksos when the latter were attacked by the early eighteenth dynasty rulers. Did they support the Hyksos or the Egyptian rulers in the conflict, and to what extent? Did they 'sit back and watch' or was there an A-H or A-E military alliance at that time? An A-H political treaty would be considered likely, but not certain, if the Avaris frescoes were to date the Hyksos Period. The evidence is not at all clear. Ironically, if Thera erupted in the reign of Ahmose I,\textsuperscript{1808} to Schloen, the Aegeans, or better, the Aegean eruption could signify the 'fall' of the Hyksos in Avaris.\textsuperscript{1809} Khyan's lid [P163] from Knossos cannot be used as a 'secure' evidence of a C-H political alliance if seen as an antique in its context.\textsuperscript{1810}

In the author's view, an A-E political treaty did happen, if the Aegean processional scenes and the texts accompanying them\textsuperscript{1811} are taken into account. The precise terms of such an alliance are obscure, and it is often difficult to suggest whether the Egyptian allies were the Minoans, the Islanders or the Mycenaeans, or even, any Aegeans settled in Egypt.\textsuperscript{1812} However, MacGillivray expressed a number of thoughts over such a treaty,

\begin{footnotesize}
\begin{itemize}
\item[1807] See chapter Five. The author suggests this hypothesis considering that the majority of these frescoes (apart from the Miletus frescoes) were painted in palaces / administrative buildings.
\item[1808] As suggested by e.g., Ritner and Moeller 2014.
\item[1809] Schloen, on Journals - press release (1 Apr. 2014, commenting on the press release of Ritner and Moeller 2014) notices that, if a c. 1600 date is accepted for the Thera eruption, this catastrophic large-scale event - and the tsunami that followed - might be the reason why the Hyksos were defeated by the Thebans: with their ports and sea power destroyed, they were too weak to fight back. Similarly, the same event might have assisted the Hittites to defeat the Babylonians.
\item[1810] See note 1802.
\item[1811] e.g. \{15\}, \{18\}, \{16\}, etc.
\item[1812] Amenhotep III may have sent a diplomatic embassy to the Aegean, according to Cline (see the Kom el-Hetan list \{23\}). His alliances with numerous peoples of his era, occasionally cemented by dynastic marriages, aimed to block the power of the Hittites (Cline 1991: 22-27 and particularly, page
\end{itemize}
\end{footnotesize}
which have to be considered. On the grounds that Thera erupted in the fifth year of Hatshepsut, MacGillivray suggested that the Keftiu who had survived the tsunami, being in a difficult position, approached the queen to request assistance. Alternatively, they hoped that Hatshepsut may help them re-built their temples and palaces. For MacGillivray, these Aegeans are seen in the tomb of Senenmut, which dates to the reign of Hatshepsut prior to her year 16. At about the same time, or soon after, the 'Keftiu ships' were mentioned in texts {1}, {2}, and the Avaris frescoes were painted (if the Thutmoside date of these frescoes is accepted). Of course, the Aegeans had to reciprocate for Hatshepsut's support; therefore they appear in the Aegean processional scenes in Thebes bringing their gifts to the Egyptian Court. Judging from these scenes, the A-E political treaty was renewed in the reign of Thutmose III, and during the reign of Amenhotep II and possibly Amenhotep III, but the Cretans were replaced by the Mycenaeans in the deal. For MacGillivray, Thutmose III cemented a special alliance with the Greek Mainland sometime late in his reign, and later, in the reign of Amenhotep III Egyptian - Mycenaean relations reached their maximum. The role of

26). It is likely that a treaty with similar political interests was conducted by his predecessors. In the First Millennium BC, an Aegean - Egyptian treaty is confirmed in the case of Naucratis. For Naucratis see note 1776.

1813 MacGillivray 2009. See also Chapter Six: 'Aegean processional scenes in Thebes: Historical reality and authenticity'.
1814 MacGillivray 2009: 164. See also Spalinger 2006 for the Nubian contribution, and notes 1477, 1479.
1815 (tables 53, 54)
1816 The Thutmoside date of the frescoes suggested by Bietak et al. 2007. See chapter Five.
1817 See chapter Six and [§ reciprocal economy].
1818 (table 53)
1819 MacGillivray 2009: 166. According to MacGillivray's chronological scheme (table 16), while Thutmose III and Amenhotep II were in power, the Minoans rebuilt their palaces and mansions at Hagia Triadha, Mochlos, Pseira, Palaikastro, and elsewhere. To MacGillivray the Egyptianising Kouros from Palaikastro [K294] can be synchronised with the reign of these rulers in Egypt.
1820 MacGillivray 2009 contra Cline 1991, who had argued that Amenhotep III first carried out business with the Greek Mainlanders, and he places the very beginning of the Mycenaean rule at Knossos in
the indigenous Cretans in the Mycenaean - Egyptian liaison was secondary, even though the Cretan ports were still used for exchange with Egypt, this time for the benefit of the Mycenaeans, who by then, to MacGillivray's mind, were settled on the island.\footnote{1821} The replacement of the Egyptian - Minoan alliance with an Egyptian - Mycenaean one is justified, according to MacGillivray, from textual material in which the notion that Egypt prevails is interpreted as an historical fact;\footnote{1822} and from the problematic palimpsest of the Aegean dress in the Aegean processional scenes.\footnote{1823} Moreover, MacGillivray suggests that not only did Thutmose III break the alliance with the indigenous Cretans, but he also supported the Mycenaeans while they took over Crete.\footnote{1824}

MacGillivray's plan is 'built' upon this author's preferred chronology,\footnote{1825} which places 1463 BC.

\footnote{1821}{MacGillivray's concept (2009: 166-169) presupposes that the Knossos palace was under the control of the Mycenaean \textit{wanax} (= Mycenaean ruler / king, the Homeric \textit{á}ναξ) and so did the port of Kommos, and that the Isopata tomb was the resting place of a Mycenaean Keftiu chief, who dealt with Mencheperreseneb (table 53).}
\footnote{1822}{He refers to texts \{3\}, \{11\}, \{13\}, \{17\} and \{19\}.}
\footnote{1823}{MacGillivray (2009: p. 167-168) suggests that Thutmose III's change of favouritism, from the Minoans to the Mycenaeans, can be seen in the later Aegean processional scenes (from the time after Rekhmire became vizier), in which the styles of the kilts were now over-painted by those of the Greek Mainland. MacGillivray assumes that the Mycenaeans were present on Crete and at Knossos, on the basis of the dress of the 'chief' in the Aegean processional scenes from the tomb of Mencheperreseneb (2009: 168). For the palimpsest of clothes see Chapter Six: 'Aegean processional scenes in Thebes: Historical reality and authenticity'. Moreover, MacGillivray's view (2009: 168-169) that the Keftiu's subdued power is depicted in the Aegean processional scenes in the Tomb of Intef (very late reign of Thutmose III), when the Keftiu are shown paying 'tribute' rather than bringing gifts to the ruler, being, according to MacGillivray's phraseology 'under the pharaoh's mantle'. MacGillivray regards texts \{3\}, \{11\}, \{13\}, \{17\} and \{19\} as a proof that the Mycenaeans had superseded the Minoans in Aegean supremacy by 1563 BC; and that, Thutmose III had terminated connections with the Keftiu at the end of his reign, after having established new trade alliances with the Mycenaeans (MacGillivray 2009: 168). His concept is also based on the LM II 'warrior graves'. For these graves, and for the Mycenaean presence on Crete, see Andreadaki-Vlasaki 2000 and Preston 2004. For DNA studies that demonstrate an influx of Peloponnesians and Thessalians to the island of Crete, see King et al. 2008.}
\footnote{1824}{MacGillivray 2009: 116-169.}
\footnote{1825}{(table 16)
the Thera eruption c 1500 BC / early reign of Hatshepsut. The historical background would be entirely different if Thera eruption is placed to c 1600 BC, according to radiocarbon, or if the eruption occurred during the reign of Ahmose I.\textsuperscript{1826} Essentially, the date of the Thera eruption, the acceptance, or not, of the Aegean dress' palimpsest and the interpretation of the texts accompanying the Aegean processional scenes would determine when and between whom (Minoans / Mycenaeans - Egyptians) a political treaty was established.\textsuperscript{1827} However, the author maintains that if the Egyptians, from the late reign of Thutmose III onwards, had established an alliance with the Mycenaeans, the name of Tinay would have been mentioned in the inscriptions accompanying the during-and-after late-Thutmose III Aegean processional scenes.\textsuperscript{1828} In other words, why were Mycenaeans still called 'Keftiu', instead of simply being called 'Danaans'? Certainly, if Mycenaeans were still coming from Crete, they could be called 'Keftiuans', but if the Egyptian scribes wanted to distinguish between indigenous Cretans and Mycenaean Cretans or Mycenaeans, they would probably prefer to use the term 'Tinay', instead of generalising the name 'Keftiu' to cover both indigenous and Mycenaean Cretans.\textsuperscript{1829} Only text \{19\} from the Annals of Thutmose III refers to a Danaan \textit{\textit{\textit{inw}}}, but the texts accompanying the late Aegean processional scenes make no mention of the 'Tinay' chiefs whatsoever. This incident, to the author's mind, complicates even further the identity of the members of an A-E alliance.

\textsuperscript{1826} See chapter One: 'Chronology', the 'Analysis', and 'What do the latest publications (from 2010 onwards) suggest about Aegean - Egyptian chronological links?'.
\textsuperscript{1827} As seen in chapter One: 'Analysis' (discussion of the key-events).
\textsuperscript{1828} (\textbf{table 53}). For 'Tinay' see chapter Four: 'Terminology'.
\textsuperscript{1829} See this chapter, the discussion about the form and degree of presence of Aegeans in Egypt and Egyptians in the Aegean'.
However, in general, an A-E treaty at military level is considered likely by the author. The possible contribution of Aegean soldiers and mercenaries in the eighteenth dynasty Egyptian campaigns, and the possible presence of African soldiers on Crete has been discussed previously, together with the Aegean processional scenes.\textsuperscript{1830} With respect to a naval agreement, as mentioned previously, Marinatos argued that during his military campaigns in Syria, Thutmose III sought the assistance of the Cretan 'navy' for the replenishment of his army while in foreign lands.\textsuperscript{1831} The author maintains that this might be a possible scenario. It could also be that Minoans and Egyptians were cooperating in subduing piracy in the EM.\textsuperscript{1832} Additionally, Marinatos suggested that a Minoan army or navy official may have resided in one of the Avaris palaces, in order to explain the Minoan frescoes discovered there.\textsuperscript{1833} The hypothesis over a maritime agreement is similar to MacGillivray's theory that Hatshepsut helped the Minoans recover the Minoan fleet post-eruption; and that the Keftiu used palace [F] as a post in Egypt's royal shipyards at \textit{Prw-nfr}; views which are clouded by chronological disputes among researchers.\textsuperscript{1834}

A maritime / military and effectively economic/ commercial alliance between the

\textsuperscript{1830} For aspects of history and the eighteenth dynasty campaigns see \textit{(tables table 28, 29, 33)}. For Aegean soldiers in Egypt and the possible presence of Egyptian / African military on Crete see chapter Six: 'Remarks on the Aegean processional scenes in Thebes': '4'.
\textsuperscript{1831} Marinatos, N. 2011. See also this chapter: 'The protagonists of A-E interactions: c 1900-1400 BC': 'sailors'.
\textsuperscript{1832} Marinatos, N. (2011) states that the Minoan navy squashed piracy in the Mediterranean at that time. See also: Chapter Six: 'Remarks on the Aegean processional scenes in Thebes': '8'.
\textsuperscript{1833} Marinatos, N. 2011
\textsuperscript{1834} MacGillivray 2009: 165. On this, see also chapter Six: 'Aegean processional scenes in Thebes: Historical reality and authenticity'. For the chronological discrepancies over the Thera eruption, Aegean and Egyptian chronology, see chapter One.

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Aegean and Egypt is effectively dependent on current research of the Austrian mission about *Prw-nfr*.\(^{1835}\) 'Keftiu ships' are mentioned in the records of the late reign of Thutmose III,\(^{1836}\) i.e. they are a Thutmoside phenomenon and they were, to great extent, state-associated. *Prw-nfr* was the place were these ships were built or repaired. If the presence of an international maritime station is confirmed in Avaris, then, in the author's view, a special maritime alliance and permit was probably needed for the 'Keftiu ships' to anchor, get built or repaired there, unless of course the Aegeans were settled in Avaris.\(^{1837}\) Texts \{1\} and \{2\} which mention the 'Keftiu ships', confirm that ships either sailing via Crete or Cretan in origin, anchored in *Prw-nfr*; and \{2\} may even imply the entirely hypothetical scenario that, if the enigmatic 'Keftiu ships' signify the Minoan navy, the Minoans were allies of Thutmose III.

The author maintains that a number of economic / commercial treaties between the Aegean and Egyptian states are more than likely, and the same applies to the A-H liaison. Such a treaty would explain some of the Aegyptiaca discovered in the Aegean and vice versa.\(^{1838}\) Moreover, as previously stated, in essence, the Aegean processional scenes in Thebes demonstrate primarily A-E diplomatic / political interests, and secondarily, economic / commercial interests. Reciprocity played a key-role in any economic / commercial agreements; however, since eighteenth dynasty Egypt was the strongest partner, the Aegeans had to make concessions to the Egyptian state.\(^{1839}\) It is

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1835 For *Prw-nfr* see chapter Five: 'The Aegean interactions with Avaris addressed historically' and Seven: 'Possible A-E alliances and diplomatic treaties'.
1836 \{1\}, \{2\}
1837 For the 'Keftiu ships' see chapter Four: 'Terminology'.
1838 See the Annex with numerous examples provided.
1839 See chapter Six, and particularly: 'The 'ìnvw' and 'Remarks on the Aegean processional scenes in
certain that the process of A-E trade treaty was legislatively determined\textsuperscript{1840} in every possible detail, with respect to the act of dealing and the dealers themselves. It is not known exactly what terms such a treaty would involve. It is guaranteed, however, that the terms of the treaty were tailored according to the needs of the two parties in exotica, raw materials, foodstuffs and pharmaceutics, etc.

Lastly, it is possible that any Aegeans established in Egypt had to offer gifts or services to the Egyptian Court on a regular basis, as seen in the Aegean processional scenes, assuming that some of the Aegeans depicted in the processional scenes in Thebes (and particularly in the scene in the tomb of Useramun) came from the Delta.\textsuperscript{1841} A series of special political and economic treaties may have allowed the Aegean minority to maintain the right to stay in the land of Egypt.\textsuperscript{1842}

7.2.3 The theory of a dynastic marriage in association with the Minoan presence in Egypt

It was previously mentioned that elite and dynastic intermarriages were a means of politics and economics.\textsuperscript{1843} In essence, the practice of dynastic marriages is connected to the establishment of inter-ethnic alliances / 'brotherhoods' and the mutual or co-

\textsuperscript{Thebes'}.\textsuperscript{1840} [§ treaty trade].
\textsuperscript{1841} The opinion that some of the Aegeans in the Aegean processional scenes come from the Delta is maintained by Duhoux 2003 and MacGillivray 2009. For the Aegean processional scenes, see chapter Six. See especially Duhoux 2003: 119-133, 135-144, 182-187, 198-199 and MacGillivray 2009: 165. On this hypothesis, see chapter Six: 'Aegean processional scenes in Thebes: Historical reality and authenticity' and Seven: 'On the razor's edge: Aegeans in Egypt and Egyptians in the Aegean'.
\textsuperscript{1842} After all, the Naucratian Greeks had conducted similar treaties with the Egyptian ruler Ahmose II (a.k.a. Amasis II) (c. 570-526 BC). See note 1463.
\textsuperscript{1843} See chapter Two: 'Characteristics and behaviour of the world system'.

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operative interchange of favours, gifts and services. From the WS point-of-view, such marriages stimulated the circulation of items and ideas. From the GT point-of-view, they operated as strategies, cementing coalitions.

As seen in chapters Four, Five and Six, the possible relationship of Ahhotep with the Aegean, the painting of Aegean frescoes in Avaris and the official gift-offering in the Aegean processional scenes in Thebes could be linked to a diplomatic marriage between an Egyptian ruler and the daughter of an Aegean ruler (or, to be less definite, a Minoan / Aegean subject). This marriage probably occurred sometime from the very end of the seventeenth dynasty to the mid-eighteenth dynasty, but earlier or later dates are also possible. The 'H3.w-nb.wt' title of Ahhotep, and the Aegeanising artefacts connected to this queen and her offspring, have been used in order to support such a theory at the very end of the seventeenth dynasty and the early eighteenth dynasty. Depending on the accepted date, the Avaris frescoes (Thutmoside or earlier?) and the scenes of Aegean delegates in Thebes may also suggest such a scenario, with respect to Ahhotep and / or another princess, the records of whom are now lost. After all, as suggested by the

1844 See [§ reciprocal or customary economy, § gift exchange, § brotherhood] and the economic principles in (table 27) See also the discussion in chapter Six: 'Remarks on the Aegean processional scenes in Thebes': '10', on diplomatic marriages, and in the same chapter: 'the inv', about reciprocal offerings. Often, dynastic marriages linked motherlands to diasporas. See [§ diaspora]. For the meaning of 'brotherhood', see chapter Six: 'Remarks on the Aegean processional scenes in Thebes': '10'.
1845 See (table 27).
1846 See chapter Two: 'Game Theory and Aegean - Egyptian interactions: similarities to the World System/s approach'.
1847 For Ahhotep and Aegeanising items associated with this Queen see chapter Four: 'terminology': 'H3.w-nb.wt' and 'Aegean and Aegeanising items unearthed in Egypt: 'Avaris', in the Annex; also chapter Five: 'Who painted the Avaris frescoes and why were these frescoes painted? A cornucopia of ideas' and chapter Six: 'Remarks on the Aegean processional scenes in Thebes': '10'. In this case, the items are called 'Aegeanising' because they are influenced by Aegean art.
Amarna Letters and the case-studies of Thutmose III and Amenhotep III, it was commonplace for Egyptian and Near Eastern rulers to cement political, economic and trade alliances through their marriages to foreign princesses.\textsuperscript{1848} Royal intermarriages were considered equal to signing a legal contract. Diplomatic marriages 'bonded' two or more parties together and formed 'brotherhoods', but the alliances and their terms should have been renewed regularly, via generous diplomatic gift-offering and exchange of favours, further political marriages, additional alliances, embassy visits to foreign regions, etc.\textsuperscript{1849} Moreover, according to the etiquette of reciprocity, an A-E political marriage implied the exchange of gifts and favours. Therefore, the author maintains that the Avaris frescoes (chapter Five) and the Aegean diplomatic gift-offering to the Egyptian court (chapter Six) may in theory confirm such a practice, in addition to a political / economic agreement. In a similar manner, the participation of Aegeans in Egyptian events and festivals;\textsuperscript{1850} the exchange of luxury gifts;\textsuperscript{1851} and occasionally, the

\textsuperscript{1848} See the work of Schulman 1979 on diplomatic marriages in Pharaonic Egypt. For the political marriages of Thutmose III and Amenhotep III to foreign princesses see Bryan 2003: 250, 260-261. The Amarna Letters often mention these marriages: Babylon EA 1-11 (Egyptian-Babylonian dynastic marriage; Mitanni EA 17-30 (Egyptian - Mitanni dynastic marriage), discussed in Moran 1992. It is worth pointing out that both diplomatic marriages and 'prostitution' were used as diplomatic mechanisms in Egypt. Even Herodotus narrates (in 2, 126) that Cheops (the fourth dynasty ruler Khufu) sacrificed the honour of his daughter and promoted her to nobles, in order to obtain the money to complete his pyramid (which might be an entirely mythical element of course).

\textsuperscript{1849} 'Brotherhoods' are discussed in Chapter Six: 'Remarks on the Aegean processional scenes in Thebes'; '10'. For example, in Mitanni EA 17-30 (see Moran 1992; Albright 1971; 2003), the correspondence discusses the sending of gifts for the cementing of an Egyptian - Mitanni diplomatic marriage and the renewal of Egyptian - Mitanni alliances.

\textsuperscript{1850} See chapter Five: 'Who painted the Avaris frescoes and why were these frescoes painted? A cornucopia of ideas', with respect to the short life of the Avaris frescoes painted by Knossos-sent artists for the commemoration of a special event; the 'fresco of the Theran fleet' at Santorini [K117] which may demonstrate boats departing for a special event in a foreign land, and the Aegean ambassadors in the processional scenes in Thebes (chapter Six), when these scenes depicted special events and festivals of the Egyptian state.

\textsuperscript{1851} See the Aegean processional scenes in Thebes (chapter Four) and numerous luxury Aegyptiaca discovered in the Cretan palaces in the Annex.
texts\textsuperscript{1852} demonstrate special A-E political agreements, probably to have been introduced by dynastic marriage.

A closer look at the theories of an A-E political marriage dictates the discussion of this practice in accordance with an Aegean presence in Egypt. Bietak, who sees a dynastic marriage between an Egyptian monarch and a Minoan princess, favours the presence of Minoans in Avaris, with limitations: according to Bietak, a Minoan Queen lived in the palace, and the frescoes were painted to please her.\textsuperscript{1853} Duhoux neither accepts nor rejects the theory of such a dynastic marriage. He believes that a Minoan - Egyptian political marriage may have encouraged the Minoans to settle in the Delta, while he also discusses Ahhotep's possible Minoan origin.\textsuperscript{1854}

The author argues that an A-E diplomatic marriage may indeed justify the Aegean presence in Egypt, in Avaris and elsewhere. It is easy to assume that a Minoan Queen would be joined by Minoan followers and servants when she travelled to her new home. So far, there are no records about a Minoan - Egyptian political marriage in the texts, other than the enigmatic title \textquoteleft H3.w-nb.wt\textquoteright.\textsuperscript{1855} However, the slightly later Amarna Letters inform researchers about the time-consuming negotiations needed before a

\textsuperscript{1852} e.g. {15}, {19}
\textsuperscript{1853} See chapter Five: 'Understanding the raison d'être of the Avaris frescoes: 'Who painted the Avaris frescoes and why were these frescoes painted? A cornucopia of ideas', and Bietak 1996: 80; Bietak 2005: 81; Bietak 2007b: 86 and note 1169.
\textsuperscript{1854} See Duhoux 2003: 220 and especially note 55 in his book. Duhoux discusses the problematic identity of Queen Ahhotep, suggesting that Ahhotep I may have been Minoan; note that Ahhotep I and II may be the same person. For the problematic identity of Queen Ahhotep see note 870. Nonetheless, Duhoux (2003: 221) is not convinced that the facial characteristics and physique of Ahhotep I appear Aegean. For a picture demonstrating the physique of Ahhotep I see Capart 1947: pl. 662.
\textsuperscript{1855} For this title see chapter Four: 'Terminology'.

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dynastic marriage was completed. For instance, as demonstrated from EA 9, EA 10, and EA 11, messengers were exchanged between Egypt and Babylonia, in order to cement such an event. These negotiations involved, not only the exchange of customary greeting gifts and the necessary dowry associated with the foreign princess, but also the visit of Egyptian diplomats to the foreign land in order to prepare the bride for her new role and trip. An Egyptian escort (soldiers and chariots) was also frequently sent to the foreign land in order to accompany the bride to her new home.  

It is also tempting to compare the process of the arrangement of diplomatic marriages in Egypt with an example from Byzantium, as such marriages were global phenomena and occurred regularly in recorded history. In the eighth century AD, international royal marriage proposals were also conducted through the exchange of messengers and delegates, as in the case of Egyptian eighteenth dynasty diplomatic marriages. A Byzantine diplomatic mission would be sent to the court where the bride was based. The delegates of this mission would first confirm the suitability of the princess to become a Byzantine royal bride. Upon agreement, they established the 'terms' of the prenuptial and 'sealed the deal'. Occasionally, a few officials remained with the foreign princess in order to teach her the Byzantine way of culture, before she travelled to the capital to marry her royal groom. On visiting the Byzantine palace, the princess had to change her name, deny her past and adopt Christianity, along with receiving a Byzantine name.

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1856 For EA 9, EA 10 and EA 11 see Moran 1992: 18-35. The Egyptian - Babylonian Amarna correspondence even states that in one case, an escort of 3,000 soldiers had been provided in order to accompany a Babylonian bride to Egypt. For other examples of political marriages mentioned in the Amarna Letters see note 1420.

1857 [§ assimilation]. Compare to the discussion of the possible assimilation of Aegeans in Egypt in this chapter: 'Why does the archaeological evidence not justify the Aegean sedentary presence in Egypt?
Such a procedure was followed in the 'engagement' between Constantine VI and Rotrud, the daughter of Charlemagne. Upon the 'engagement', eunuch Eliseus remained with the western princess for the purpose of teaching her the Byzantine language, writing and customs, including religion.\textsuperscript{1858}

In the author's mind, if an A-E political marriage ever took place, judging from the two case-studies mentioned above, maybe a similar practice was followed. In other words, messengers and diplomats travelled between the Aegean and Egypt, gift-exchange and a dowry was involved, a 'marriage contract' effectively cemented political agreements between the two regions and such a marriage generated, to some extent, mobility of population between the Aegean and Egypt, at least, temporarily. In GT terms, such processes manifest the rationality, decision-making, pre-planning and 'running' of diplomatic strategies.

Moreover, if a Minoan diplomatic bride did join the Egyptian Court, it is almost certain that she would become Egyptianised; therefore, her true identity and origins would not be easy to trace. The existence of an Aegean queen in Egypt would demonstrate sedentary Aegean presence there, even if Aegean individuals established there were limited in number.

To the author, if Bietak is correct about the diplomatic marriage theory, the Avaris...
frescoes may have been painted in order to commemorate the 'special event' of the royal marriage and the welcoming of the new bride accompanied by the Aegean escort and mission. In this case, the Aegean frescoes in Avaris would function as a 'bond' between the Aegean and Egypt, an emblem and symbol of alliance and friendly affiliation, similar to a modern union flag. Moreover, an exchange of gifts and dowry should be expected for the purpose of securing a political marriage and the A-E treaties accompanying it. The reinforcement of the marriage contract and that of the terms of the treaties was expected, and further exchange of gifts and diplomatic missions would follow. The Aegean processional scenes in Thebes may reflect exactly that renewal of A-E good relations, treaties and alliances via regular gift-offering.

7.3 Game theory: on players, migration, diplomatic marriages and alliances

To conclude, in GT terms, the previous discussion in this chapter shows:

- the GT focus on the individual in A-E relations (rulers, merchants, migrants, etc).

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1859 This view combines Bietak's concept (2007b: 86) that the Avaris frescoes were made for a special event with another of Bietak's concept (2007b: 86) that the frescoes were made because there was an Aegean Queen in the palace.
1860 Such a theory may also explain the Aegean frescoes in other non-Aegean regions, with limitations, as there are chronological differences between the murals in the Aegean, Kabri, Alalakh, Kabri and Katna (table 12). See chapter Five on the Avaris frescoes and especially 'Aegean and Aegeanising frescoes outside the Aegean' and 'Who painted the Avaris frescoes and why were these frescoes painted? A cornucopia of ideas'.
1861 For the Aegean processional scenes in Thebes see chapter Six.
• and the significance of the players 'rationality'.

• the reasons and causes behind historical events,

• the importance of coalitions ('alliances') in A-E international relations,

• some of the media and strategies in these relations (e.g. exchanged exotica, possible diplomatic marriages, Minoan presence in Egypt, treaty trade, maritime agreements).

• and the consequences ('payoffs') of these strategies: how strongly or loosely Aegeans were connected to Egyptians, always depending on strategies and historical circumstances.

7.4 Searching for equilibria in Aegean - Egyptian interactions

To the author, when searching for equilibria in A-E interactions, these cultures should not be considered in isolation from the rest of the EM. Equilibria should be sought in international politics and the market. Their nature would vary according to the character

1862 With GT, the study focuses on the interaction among heads of states, sailors, migrants, etc. instead of the transactions between zones (as happens in WST). See the discussion of agents / players in A-E relations' in the 'The protagonists of Aegean - Egyptian interactions: c 1900-1400 BC'. These players / agents should (but not always) function, and pre-plan their actions in a rational manner (see this chapter: 'Searching for equilibria in Aegean - Egyptian interactions').

1863 e.g. how commercial and diplomatic reasons may have encouraged some Aegeans to settle in Egypt ('Sedentary population: Aegeans in Egypt?'), or how the Keftiu might have approached the Egyptians, asking for help, post- eruption (MacGillivray's theory in 'Possible Aegean - Egyptian alliances and treaties').

1864 This chapter: 'Patterns of exchange through the analysis of artefacts', 'Possible Aegean - Hyksos / Aegean - Egyptian state-to-state negotiations', 'Aspects of Aegean - Egyptian diplomacy', 'Possible Aegean - Egyptian alliances and treaties', 'The theory of a dynastic marriage in association with the Minoan presence in Egypt'.

1865 See chapter Two, Game Theory and Aegean - Egyptian relations': VI) equilibrium.

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of players / nations and the circumstances of the game. Nonetheless, EM cultures would only be in equilibrium within specific circumstances.\textsuperscript{1866}

For example:

- According to the definition of the term 'equilibrium' (in the terminology), the rationality of the players and the successful process of 'learning from the past' were not guaranteed due to complex and unstable political and economic relations in the Bronze Age EM.\textsuperscript{1867} Under these circumstances, the cultures would not be in equilibrium.\textsuperscript{1868}

- In contrast, because the EM 'game' is a mixed strategy equilibrium, with nations following a mixture of political and economic strategies according to historical circumstances and individual needs,\textsuperscript{1869} in theory, it could present several equilibria in different areas (or regions) of activity, and at different levels of

\textsuperscript{1866} This concept is based on the explanation of 'equilibrium' as provided by Shor 2005 - web accessed. See \[ equilibrium \].

\textsuperscript{1867} An explanation: in practice, at times it would be difficult for a state to rationally and correctly anticipate the political and economic strategies of other nations, even though observation of past events would allow some estimations. Also, political leaders might attempt to trick the opponents during warfare and diplomacy negotiations \[ rationality and learning process in games \]. Lastly, as mentioned previously (see an example in note 466) not all states / state leaders are rational or act rationally.

\textsuperscript{1868} They would not be in equilibrium, based on the definition of the term 'equilibrium' by Shor 2005 – web accessed; Montet and Serra 2003: 6, 22, 65, 76, as also seen in \[ equilibrium \].

\textsuperscript{1869} See e.g. the discussion of how the key-units of evidence are affected by chronology in chapter One: 'Difficulties in dealing with chronologically fluid data in A-E relations and their implications' and Analysis'. The discussion manifests how fluid chronology complicates the political and economic realities of certain EM cultures (e.g. the Aegeans or the Egyptians), and in turn, EM political and economic relations are affected as a whole.
stability.\textsuperscript{1870} Therefore, whether EM cultures were in equilibrium or not depends entirely on how the definition of the term 'equilibrium' is approached, and which of the definition's boxes are 'ticked'.\textsuperscript{1871}

- Also, EM cultures, along with their political and economic strategies, were mutually self-supporting. Every state would make the best decision possible and follow a strategy after considering the rationally anticipated decisions and strategies of other states; which suggests that Bronze Age EM states were indeed in equilibrium.\textsuperscript{1872}

- Nonetheless, it was not guaranteed that every single EM nation received a payoff that at least reached its expectations at a particular moment; and in that case, an equilibrium was not achievable (according to the rules).\textsuperscript{1873} For instance, the political payoff of the Hyksos after the fall of Avaris was less than the rational expectations of the Hyksos rulers. Moreover, the economic payoff of certain regions (such as the recession-hit Levant after c 1550 BC) was inversely proportional to their expectations.\textsuperscript{1874}

\begin{itemize}
\item The same definition of the term 'equilibrium' is used here (see above). A game usually has multiple equilibria (Montet and Serra 2003: 65, 76).
\item Again, on the basis of the definition of the term 'equilibrium' by Shor 2005 – web accessed; Montet and Serra 2003: 6, 22, 65, 76.
\item The latter is based on the terminology of Montet and Serra 2003: 22, 65. As long as players are mutually self-supporting, the balance in the game (and consequently, in the world system) is maintained. The formation of coalitions / alliances is necessary for the creation of equilibria, but it does not have to be absolute or multilateral (Montet and Serra 2003: 86).
\item e.g. eighteenth dynasty Egypt was more powerful in the market than some Levantine regions which suffered from recession i) because of constant warfare, and ii) because of being under Egyptian and
\end{itemize}
Specifically in the case of A-E interactions, coalitions can be distinguished: nations that are under the control, authority or influence of Egypt, peoples that are happy to economically and politically deal with the Aegeans; and cultures that are amicably affiliated with both the Egyptians and the Aegeans at the same time.\textsuperscript{1875} The nature of these coalitions differed over time,\textsuperscript{1876} but there was an equilibrium within these links, since the bad strategy of a single nation would negatively affect the rest of the nations in the link. Decisions and strategies were crucial: A strategy followed by a single member could either benefit the group or lead it to disaster.\textsuperscript{1877} But even when Egypt was in equilibrium with the Aegean, if Egypt changed its strategy (for example, its foreign policy) towards a third country, the Aegean would be affected – and vice versa. Also, at least from an economic point of view, there was an equilibrium within the EM itself, since a) the balance between supply and demand of products and services was maintained and b) no nation would ever wish to break the market rules as this could lead to a wider 'disruption' in which even the most powerful game players would suffer.\textsuperscript{1878} Moreover, equilibria existed between social classes within single nations, not only between equivalent social classes of different nations.\textsuperscript{1879}

\textsuperscript{1875} As seen in \textit{(tables 28-39)}, where examples of these relations are provided.
\textsuperscript{1876} See this chapter: 'Possible Aegean - Hyksos / Aegean - Egyptian state-to-state negotiations'.
\textsuperscript{1877} As shown in chapter Two: ‘Game Theory and Aegean - Egyptian interactions: similarities to the World System(s approach', 'VII) Equilibrium' and the explanation of the term \textit{[§ equilibrium]}.\textsuperscript{1878} See e.g. Correa 2001: 197-198, who explains how market equilibria operate.
\textsuperscript{1879} According to studies such as Swedberg 2001.
• Geographically-speaking, an equilibrium in the EM might also be explained by 'Hotelling's model of spatial competition':\textsuperscript{1880} when in equilibrium, no culture would improve its position by deviating from its strategies, all cultures would be relatively happy with what they received, and would remain in coalition and close contact in order for players to monitor aggressive political and economic competition as closely as possible.

Second, in the author's view, there were certain factors (below) that promoted the creation and maintenance of equilibria between EM players / nations, other factors that discouraged them; and also, factors that promoted or impeded equilibria depending on circumstances. Frequently, to the author, these are the same factors that, in WS terms, affect the world system and are responsible for Frank's repetitive and cyclical ascending and descending phases.\textsuperscript{1881} Many of these factors, and their effect in the EM world system, have been examined before.\textsuperscript{1882} Examples follow.

Alliances of various forms can promote the creation of equilibria, and equilibrium can be used to describe the function of EM coalitions.\textsuperscript{1883} For instance, a political and

\textsuperscript{1880} Hotelling 1929. See [§ \textbf{Hotelling's model of spatial competition}]. An explanation: of course EM cultures cannot change their geographical position, but no matter where they are, they at least try to be in constant contact with other cultures in order to monitor competition.

\textsuperscript{1881} See chapter Two: 'A five thousand year single world system' and 'Characteristics and behaviour of the world system', and (\textbf{table 28}).

\textsuperscript{1882} See chapter Three: 'Eastern Mediterranean, World system and Game Theory: the example of the cog-wheel machine'.

\textsuperscript{1883} That is how this can be done: A coalition consists of mutually self-supporting players / countries.
economic agreement is formed between the Egyptians and others, as seen in the processional scenes in Thebes.\textsuperscript{1884} All parts of this coalition must regularly offer surplus to the Egyptian state in return for clemency and favours, but should any of the depicted nations cease doing so (i.e. it changes its strategy), this nation will face the consequences and the balance of the equilibrium will be disturbed. If the Aegeans deliberately ceased offering gifts to the Egyptian court, theoretically, their payoff would be limited compared to what they would benefit by continuing their strategy of regular gift-giving.

Another pro aequilibrio is state administration, which functions as a motive force for the creation and maintenance of equilibria, since state and elite are the political and economic decision makers and also, of fundamental importance in WS terms.\textsuperscript{1885} Diplomatic missions and marriages - such as Bietak's suggested marriage between an Egyptian ruler and an Aegean subject for the justification of the Avaris frescoes, are also pro aequilibrio. They encourage an equilibrium while at the same time, they expand WS

\begin{flushright}
\textsuperscript{1884} See chapter Six.
\textsuperscript{1885} See the economic principles in (table 27). For the connection between equilibria and balance in the world system see chapter Two: 'Game Theory and Aegean - Egyptian relations': VII) Equilibrium.
\end{flushright}
Colonialism, colonisation, imperialism and migration - for instance, a hypothetical Minoan presence in Egypt or the Aegean delegates in the Theban processional scenes - also boost the creation and maintenance of equilibria, in the sense that they encourage the strategy and outcome of the game which in that case is the amicable relationship between the two regions.

Ultimately, however, the most powerful pro aequilibrio in Bronze Age EM relations and A-E relations per se - both as a strategy and as a payoff - is the market, since it encourages diplomacy and the formation of coalitions. Imitations of exotica and artistic koiné are also pro aequilibrio, because they 'bind' cultures and people together, creating 'common culture'. The aspect of reciprocity in diplomatic gift-exchange, which goes hand in hand with the market is also pro aequilibrio. A market- and reciprocity-oriented equilibrium is exactly the same phenomenon that creates the transfer of surplus in WS terms, and operates via a mixed economic character.

Gateways also function pro aequilibrio as these multifaceted regions and their ports...

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1886 See economic principle C. For the diplomatic marriage in question see chapter Five: 'The Aegean interactions in Avaris addressed historically' and this chapter: 'The theory of a dynastic marriage in association with the Minoan presence in Egypt'. The reason world system zones would expand after a diplomatic marriage, is that these marriages functioned as political treaties. They opened up, maintained and encouraged contact with foreign lands.

1887 economic principles in (table 27) (particularly economic principle F).

1888 economic principles in (table 27) (particularly economic principle U).

1889 See, e.g. the Nilotic scenes in Egypt and beyond. For the role of the artefacts in GT terms, see chapter Four 'Re-evaluating the exchange of exotica through Game Theory and the World Systems approach'. Other forms of culture (e.g. similarities in oral traditions / myths) operate similarly.

1890 economic principles in (table 27).
promote interconnectivity and networking among EM game players or WS zones.\textsuperscript{1891}

Additionally, treaty trade can significantly boost the creation and maintenance of equilibria, as seen, for instance, in the case of the modern European Union and its commercial policy.\textsuperscript{1892}

Finally, even though the 'laissez-faire' allowed to free artisans and entrepreneurs is restricted by the palace authorities,\textsuperscript{1893} there is effectively a separate equilibrium operating between the state and these individuals: state and free artisans are mutually self-supporting in both a cooperative and non-cooperative game. States do not benefit by changing their strategy while free artisans or merchants keep their strategies unchanged, and vice versa.\textsuperscript{1894}

Some factors can function as pro aequilibrio and/or contra aequilibrium at the same time; for instance, natural phenomena and certain political, economic and cultural circumstances.\textsuperscript{1895} The Thera eruption or an environmental degradation would have disturbed Bronze Age EM equilibria. Warfare, population pressure, migration (e.g. Asiatics to Egypt), a recession, the advance of private enterprise in the market, famine, a charismatic or irrational leader, cultural and ritual changes, would also affect equilibria

\textsuperscript{1891} Economic principles in (table 27) (particularly economic principle U). See chapter Two: 'Game Theory and Aegean - Egyptian relations': I) Agents: world-system zones compared to game players'.

\textsuperscript{1892} Economic principles in (table 27) (particularly economic principle Z).

\textsuperscript{1893} economic principles in (table 27).

\textsuperscript{1894} This concept is concluded from the terminology of equilibrium by Montet and Serra 2003: 22, 65. See also [§ equilibrium].

\textsuperscript{1895} For a similar logic in WS terms see Frank 1993: 383, Sherratt A. 2000: 123.
and the good or bad fortune of one culture could affect that of another.\textsuperscript{1896}

To conclude, because of the way that the equilibrium operated in the Eastern Mediterranean game of economic and political relations, all participating cultures were interdependent. The example of the cog-wheel machine (chapter Two) shows that no player (even the weakest players) could be ignored for the equilibrium to be maintained. As a result, no matter how indirect or direct A-E interconnections were over the course of time, the Aegeans were key players in EM relations and the maintenance of A-E contact was mandatory.\textsuperscript{1897}

\textsuperscript{1896} Compare with the concepts suggested by Sherratt A. (2000: 123) about the WS approach. \textsuperscript{1897} For the importance of contact and transcultural communication in the Eastern Mediterranean see above (this chapter), the discussion of Hotelling's model of spatial competition.
CONCLUSIONS

'A very special relationship... which must have been more than mere trade relations'
(Niemeier 1995a: 260, about A-E interactions)

The conclusive chapter answers the research questions posed in the introduction and addressed in the previous chapters.\(^{1898}\) The application of GT has proved fruitful in these analyses and is applicable to a wider area of research.

1. **Research question One: How secure are Aegean - Egyptian chronological interlinkages?**

Some issues in Aegean and Egyptian chronologies are discussed in chapter One. A number of A-E chronological links are provided there,\(^{1899}\) mainly with respect to the Thera eruption and the seventeenth to fifteenth centuries BC. Moreover, specific chronological issues have been discussed in detail in chapters One, and Four to Seven, with regard to the key units of evidence. From these discussions it becomes apparent that at present, not all Aegean and Egyptian relative and absolute chronological schemes are unanimously accepted. Debates, such as the recently-published work in

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\(^{1898}\) See the Introduction: 'Research questions'.

\(^{1899}\) see also (tables 7, 14-16).
are still in the frontline of research. Chronological interlinkages attempting to connect the Tell el-Dab'a frescoes and the Theban Aegean processional scenes with Aegean chronology are also questionable, and the synchronisms suggested by the texts and artefacts are subject to constant discussion among researchers. Therefore, to the author, any scheme of interlinkages between Aegean and Egyptian chronology is a 'weak reed'; entirely hypothetical. Phillips' suggested chronological scheme is sufficient for an overview of A-E exchange of goods, however, it would not please everyone. Nonetheless, given the chronological links that are crucial for this thesis, the advantage of the application of WST and GT to A-E relations is not lessened or affected. What is affected in this study, however, is that chronological preferences and inconsistencies (e.g. Bietak's different dates on the Aegean frescoes' findspots at Tell el-Dab'a) alter the scenario describing the exact nature and protagonists of A-E political and economic interrelations.

Ultimately, the major problem in the investigation of A-E interactions is not the polyphony of opinions, which is valuable and should be encouraged, but the chronological fault lines between the various Aegean and Egyptian chronological schemes, complicated even further by the chronological models of other EM civilisations. New chronological data are crucial for a better picture of A-E transactions.

1900 See note 244.
1901 Chapter One: 'Analysis' and chapters Five and Six.
1902 Chapter Four.
1903 (table 14). See chapter One: 'Chronological Considerations'.
1904 Chapter One: 'Chronological discrepancies: the size of the problem' and 'Analysis'.
1905 i.e. the different dates of crucial key-units of evidence alter the scenario of 'who was dealing with whom' and how this was done.
but to the author's mind, should be part of a unified study of A-E relations on the basis of the sequence of events and finds, as well as the chronology. For the time being, archaeologists should continue discussing EM relative and absolute chronologies without bias, in the hope that the two systems will complement each other and refine A-E chronological links.

2. Research question Two: What were the mechanisms of cultural transition, networking, trade and exchange between the Aegean and Egypt?

On the basis of the principles of the WST and GT, historical background, the evidence and the case studies of Avaris and the Aegean processional scenes in Thebes, the author has constructed (tables 57, 58). These demonstrate the mechanisms of exchange of goods and commodities between the Aegean and Egypt and the methods of transference of culture, knowledge, and technology between the two regions. For the time required for these processes to occur, see (tables 49a-d).

Concerning the practical issues, i.e. the mechanisms of exchange of goods between the Aegean and Egypt, possibilities are numerous, but the plausible scenarios can be grouped into the following categories:

- Portable objects were circulated as products of trade and exchange and as a form of 'payment' for barter and services at state and freelance level, directly between

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1906 See chapters Two to Six.
1907 (table 57).
the Aegean and Egypt, or via third-party nationals who played the role of intermediaries;\textsuperscript{1908}

- Items changed hands as luxury gifts, compulsory and reciprocal contributions to the world-system's hegemonic class (e.g. the Aegean \textit{inw}) and as official diplomatic / political tools;\textsuperscript{1909}

- Commodities (and occasionally the technical knowledge of producing these commodities) accompanied travelling individuals who visited a foreign land to return home, or migrated to a foreign region in order to settle there.\textsuperscript{1910}

- The circulation of exotica was encouraged by national and international trends and fashions and by the belief that the acquisition and consumption of anything exotic(-like) enhanced one's social status.\textsuperscript{1911}

Transference of knowledge:

- As seen in (table 58), culture, ritual and symbolism, technology and ideology crossed the borders together with the exchanged surplus, trade products or gifts.

\textsuperscript{1908} For examples, see the texts and artefacts in the Annex and spreadsheet; also chapter Seven: 'Patterns of exchange, population mobility and migration', 'Some observations on Egyptian and Egyptianising material unearthed on Crete and in the Archipelago' and 'Some observations on Aegean and Aegeanising material unearthed in Egypt'.

\textsuperscript{1909} The Annex provides examples of exotica that changed hands as luxury gifts; chapter Five discusses the Avaris frescoes as a diplomatic / political tool between the palaces of Crete and Avaris; and chapter Six discusses the generous gifts offered to the Egyptian state by the Aegeans.

\textsuperscript{1910} Chapter Four and the Annex with examples. Chapter Seven: 'Patterns of exchange, population mobility and migration', 'Some observations on Egyptian and Egyptianising material unearthed on Crete and in the Archipelago' and 'Some observations on Aegean and Aegeanising material unearthed in Egypt', 'The protagonists of A-E interactions' and 'On the razor's edge: Aegeans in Egypt and Egyptians in the Aegean'.

\textsuperscript{1911} As seen in the discussion of 'economic principles' in (table 27).
• Population mobility, which occurred for various reasons (warfare, colonialism, intermarriages, employment in foreign lands, etc.), also stimulated international networking, side-by-side with state diplomacy and politics.1912

• In WS terms, the economic 'manipulation' of the periphery's labour and raw materials by the core encouraged the exchange of technological knowledge.

• In GT terms, it was essential for players / cultures to know each other well.1913

• Culture was also transmitted via myth, music, festivals and rituals, etc.

3. **Research question Three: What mechanisms of economic relationship operated in Aegean - Egyptian transactions? What reasons made Aegeans and Egyptians interact with each other?**

A-E interactions demonstrate a mixed economic character.1914 Although the pattern of the A-E transcultural economic scheme depends on historical circumstances, the interpretation of the evidence demonstrates the following:

I) Market economy, from production to distribution and consumption, was the driving force in A-E relations. Both state institutions and freelance traders prompted market economy.1915 Trade and gift-exchange operated side-by-side.

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1912 chapters Five, Six and Seven.
1913 In the sense that players had to know each other's past, previous strategies and payoffs, and therefore they had to stay connected with both allies and competitors. [§ rationality and learning process in games, § Hotelling's model of spatial competition] and chapter Seven: 'Searching for equilibria in Aegean – Egyptian interactions'.
1914 [§ mixed economy]. See 'economic principles' in (table 27).
1915 See chapter Seven: 'The protagonists of A-E interactions: c 1900-1400 BC' and Research question Six.
For instance, not all Aegyptiaca unearthed in the Aegean were greeting gifts; some were products of trade. A-E exchanges of raw materials, commodities, foodstuffs, etc. also served the international market needs. The same needs were satisfied by exchange visits of trade professionals between the two regions; traders, middlemen and sailors transporting goods. Trading one's skills is also part of the market. Therefore, Aegean craftsmen and artisans who worked in Egypt contributed to the process of trade. Moreover, third parties (e.g. Syria-Palestine, Cyprus, etc.) played a crucial role in A-E market enterprise, both as producers and consumers.

II) Reciprocal economy, which dominated A-E interactions, took the form of the inter-elite exchange of high-quality greeting gifts, in return for goods, raw materials, favours and protection.\textsuperscript{1916} Nothing was free in the Bronze Age EM. People, products and favours circulated reciprocally. Reciprocity is seen in the Aegean processional scenes in Thebes.\textsuperscript{1917}

III) Command economy operated during times of crisis or conflict. The Aegean and other 'tribute' scenes in the Theban tombs of nobles may indirectly demonstrate command economy, although they also function as evidence of revenue economy. Diplomatic marriages and alliances were also part of command economy, e.g. Wachsmann's view that the Minoans provided capride horns for

\textsuperscript{1916} See chapter Four for examples of artefacts that may be considered as 'diplomatic gifts'. Such items derive almost exclusively from elite contexts.
\textsuperscript{1917} Chapter Six and Seven.
Egyptian weaponry.\textsuperscript{1918}

IV) Revenue economy, which describes the contribution of tax and labour to the elite, is reflected in the Aegean (and other foreigners') processional scenes. Institutions in Egypt and the Aegean accumulate surplus and redistribute it.\textsuperscript{1919}

The evidence indicates that the Aegeans and the Egyptians had made mutual contacts for the following reasons:

I) Power maintenance and demonstration: Minoan rule was promoted with the import of exotica. Similarly, the rulers of Egypt sought international commercial expeditions and political alliances in order to secure their power and wealth. The objective was to preserve the EM equilibrium of power and economy.

II) Economic motives and the market supply and demand: the need to import raw materials, precious metals and exotic commodities from foreign lands, for domestic consumption or international gift-exchange. Inter-elite A-E transactions were motivated primarily due to economic reasoning.

III) Political / diplomatic / historical circumstances, including possible dynastic marriages and alliances, or even the possible Minoan establishment in Egypt.

\textsuperscript{1918} Wachsmann 1987: chapter V: passim. Chapter Seven in this thesis. \textsuperscript{1919} Chapters Two and Six.
IV) Satisfying the appeal of exotica; for example, the Egyptian admiration of Aegean painting and the Aegean appreciation of Egyptian commodities.

V) Maintaining an EM koiné of ideas, knowledge, technology and culture which brought the two peoples together.\textsuperscript{1920}

4. **Research question Four: Were there Aegeans settled permanently in Egypt and Egyptians settled permanently in the Aegean? If there were Aegeans / Minoans in Egypt, why does the archaeological evidence not reveal their presence there? Was there a political, economic, diplomatic or other alliance between the Aegean and Egypt? Does the theory of dynastic marriages and that of the official embassy visits between the two locations have any validity?**

The exchange of visits appears to be - according to common sense and the archaeological evidence from both regions - a fact,\textsuperscript{1921} whereas, with respect to a sedentary presence, further evidence is required for a definite answer. The author does accept that some Minoans / Aegeans were present in Egypt, either as visitors or as part of an Aegean minority in Egypt. She argues, however, that archaeology does not fully justify the Aegean sedentary presence in Egypt in the form of an organised colony as: a) only a limited number of Minoans were present in Egypt and they were scattered, or, b) the Aegeans living in Egypt moved around regularly, or, c) they became 'Egyptianised'.

\textsuperscript{1920} For points I-V see chapters Two and Seven.
\textsuperscript{1921} Naturally, individuals transported the items between the two regions.
and lost contact with the culture of the motherland. It is difficult to judge if the opposite was possible, i.e. that Egyptians lived on Crete and in the Archipelago, even though some Egyptians must have visited the Aegean. If this happened, the number of Egyptians living there was extremely low. Further research is needed in order to investigate such a scenario.

As demonstrated in chapter Seven, A-H and A-E alliances and treaties, at political, diplomatic, economic, commercial and military level, may have existed. However, the exact terms of these treaties cannot be determined, particularly with respect to the A-H liaison. During the eighteenth dynasty, 'hints' about an A-E alliance and treaty are provided by the Aegean processional scenes, and the accompanying texts.

It is apparent that an A-E dynastic marriage might be associated with the exchange of gifts between the two states, the mobility of populations between the Aegean and Egypt, and, to a certain degree, the semi-permanent or permanent presence of Aegeans in Egypt and diplomatic visits of Egyptians to the Aegean. Such a political marriage could have been the starting point for a number of A-E alliances. The Aegean frescoes in Avaris and the Aegean processional scenes in Thebes could be partly explained by an A-E political marriage and / or an alliance, or a series of alliances, for which there is

1922 See chapter Seven: 'On the razor's edge: Aegeans in Egypt and Egyptians in the Aegean'.
1923 As in note 1921.
1924 See chapter Seven: 'On the razor's edge: Aegeans in Egypt and Egyptians in the Aegean'.
1925 See chapter Seven: 'Possible Aegean - Hyksos / Aegean - Egyptian state-to-state negotiations'.
1926 See chapter Six. e.g. text {15}.
1927 See chapter Seven: 'The theory of a dynastic marriage in association with the Minoan presence in Egypt'.

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tenuous evidence.\textsuperscript{1928}

To the author, the theory of such a dynastic marriage, and that of A-E alliances and political / economic treaties in general, remain attractive and worthy of consideration; nonetheless, more evidence is needed in order to define the thin line between hypothesis and historical reality on the topic in question.

5. \textbf{Research question Five: Can one envisage a Bronze Age Egyptomania in the Aegean? Or, even, an Egyptian Aegeomania? What do archaeological finds and texts suggest?}

Egyptian gifts or memorabilia from afar, products of trade, containers of imported Egyptian commodities, raw material from Egypt; all demonstrate that the elite in Crete and the Archipelago were well-versed in all-things-Egyptian.\textsuperscript{1929} Not only were Egyptian items and culture welcomed in the Aegean, but were also filtered, imitated and modified accordingly.\textsuperscript{1930} The Aegeans must have been fascinated by the historically profound Egyptian civilisation and the achievements of the Egyptian rulers.\textsuperscript{1931} In conclusion, Egyptomania, in the sense of the fascination with anything Egyptian, was present in Bronze Age Aegean (particularly the Late Bronze Age), and the EM as a whole. As

\begin{flushleft}
\textsuperscript{1928} See chapters Five and Six and chapter Seven: 'Possible Aegean - Egyptian alliances and diplomatic treaties'.
\textsuperscript{1929} See the Annex with examples.
\textsuperscript{1930} See e.g. the large number of Egyptianising artefacts from Aegean contexts, the Nilotic scenes, the transformation of the Egyptian standing hippopotamus deity to the Minoan Daemon, and other aspects of A-E transaction of culture and ritual, etc.
\textsuperscript{1931} [§ Egyptomania]. An explanation: here the author implies the Egyptian rulers of Upper and / or united Egypt. Yet, even the Hyksos rulers were Egyptianised and so, their foreign relations prompted Egyptomania in the EM.
\end{flushleft}
such, Egyptomania was a by-product in the preservation of the EM equilibrium.\textsuperscript{1932}

Nevertheless, it is difficult to suggest that Aegean Bronze Age Egyptomania was rewarded by the Egyptians with an equal degree of fascination for all-things-Aegean. The Egyptians were selective with respect to importing items and knowledge from the Aegean. They must have demonstrated a preference for Aegean and Aegeanising painting, and possibly textiles, raw materials and other commodities.\textsuperscript{1933} However, their interest in Minoan pottery was limited. It is possible that overall, Minoan pottery was not that aesthetically pleasing to the eyes of the Egyptians; it may have looked 'overloaded' in comparison to the usually minimal pottery decoration of the Egyptian pots; otherwise, the symbolism of Minoan pottery decoration was not 'justified' in the Egyptian mind. That may be the reason why Minoan (-ising) pottery in Egypt still appears somehow accidental.\textsuperscript{1934} In the inw of the Aegeans, the Egyptian interest was placed on other goods, such as metallic bowls.\textsuperscript{1935} Still, overall, Aegean / Minoan (-ising) material from Egypt demonstrates both import and impact. In conclusion, the intensity of Aegeomania in Egypt is far inferior to the intensity of Egyptomania in the Aegean.

\textsuperscript{1932} This is because, as seen in the end of chapter Seven, artistic koiné, imitations of exotica and foreign traditions are factors that operate pro aequilibrio.
\textsuperscript{1933} See chapter Three: 'the Aegean to Egypt', and chapter Five: 'understanding the raison d'etre of the Avaris frescoes'.
\textsuperscript{1934} See the Anex: 'Aegean and Aegeanising items unearthed in Egypt' and chapter Seven: 'Some observations on Egyptian and Egyptianising material unearthed on Crete and in the Archipelago'.
\textsuperscript{1935} Chapter Six and the relevant appendix. It is possible however that the Aegeans did bring pottery to the Egyptian court but the pottery is not openly shown in the Aegean processional scenes in the tombs of nobles, as only the best, most luxury exotic items were shown.
6. Research question Six: Who 'pulled the strings' in Aegean - Egyptian relations? The palaces and institutions? Or extra-institutional individuals?

As previously demonstrated, both the state and extra-institutional individuals stimulated A-E interactions.\textsuperscript{1936} The palaces played a primary role in the mechanism of A-E transactions, via politics and reciprocal gift-exchange.\textsuperscript{1937} The Aegean and Egyptian elite in general, strongly or loosely associated with the state, operated as the driver of A-E relations. Most portable items which testify to Aegean-Egyptian exchanges have been unearthed from contexts associated with the state and local elites (e.g. palaces, villas, upper class burials, etc.). Written documents also suggest that A-E relations were an inter-palatial phenomenon.\textsuperscript{1938} However, they were not a strictly high class phenomenon. Chapter Seven has demonstrated that lower social classes (e.g. the middle class) also consumed exotica to a lesser extent.\textsuperscript{1939}

It is true that in a society where goods and skills were exchanged, craftsmen, mercenaries, sailors and every single person who merchandised his skills or produce, was dependent on the state.\textsuperscript{1940} Therefore, essentially A-E interactions were operated not only by the elite, but also for the benefit of the elite.

\textsuperscript{1936} See chapter Seven: The protagonists of A-E interactions: c 1900-1400 BC.
\textsuperscript{1937} See chapters Five, Six and Seven.
\textsuperscript{1938} e.g. \{1\}, \{2\}, \{8\}, \{14\}.
\textsuperscript{1939} See chapter Seven: 'Some observations on Egyptian and Egyptianising material unearthed on Crete and in the Archipelago' and 'Some observations on Aegean and Aegeanising material unearthed in Egypt'.
\textsuperscript{1940} \textsuperscript{§} trader, economic principle X in (table 27).
However, the role of extra-palatial individuals, of which some were commoners or belonged to the lower social classes, should not be underestimated. A-E exchange of goods and knowledge was assisted by extra-palatial individuals simultaneously with state-to-state interactions. Weavers, potters, smiths, painters, soldiers, sailors, traders and other specialists; all made a significant contribution to A-E relations.

7. **Research question Seven: Between c 1900-1400 BC, were Aegean - Egyptian relations direct or indirect?**

This complex question investigates both C-E interactions and the relationship between the Archipelago and Egypt. For convenience, here 'Egyptian' includes the Hyksos in the Delta, but during the Hyksos Period, Aegean - Theban and Aegean - Hyksos relations are separate phenomena. The direct or indirect A-E liaison is discussed in terms of the mechanisms of trade and exchange and the seafaring routes. Any attempt to answer this question should acknowledge the following:

- Aegean ↔ Egyptian seafaring routes;
- the reasons why the Cretans and Islanders approached Egypt and vice versa;
- the archaeological and textual evidence and its interpretation;
- historical factors in both the Aegean and Egypt, and the history of transactions

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1941 See chapter Seven: 'The protagonists of A-E interactions: c 1900-1400 BC'.
1942 The author has clarified how she understands the terms 'direct' and 'indirect interactions' in the introduction (See the Introduction: 'Some clarifications on terminology').
1943 See chapter Three: III) Aegean ↔ Egypt: Trade and contact routes.
1944 See Research questions Three and Four. Also chapter two on world system and GT connectivity.
1945 Chapter Four and Seven.
chronological aspects and the date and effects of the Thera eruption;

- the role of state and individual in these relations;

- the mechanisms of A-E cultural transition, networking, trade and exchange;

- Aegean presence in Egypt and vice versa;

- and the involvement of third parties in these relations.

All these factors have been considered before; therefore some conclusions may be drawn.

As mentioned earlier, overall, between c 1900 and 1400 BC, A-E contact, in terms of exchange and seafaring, was both direct and indirect. One can, however, trace instances and chronological periods where contact appears to be more direct than indirect, or contrariwise. An Egyptian (Hyksos) - Aegean royal marriage or alliance, the Minoan establishment in Egypt or a diplomatic gift sent from a Hyksos or Egyptian
ruler to the palace of Knossos or from the Aegean rulers to the palaces of Lower and Upper Egypt, would suggest a direct contact between the two parties. Nonetheless, the Mediterranean seafaring routes, the archaeological evidence, the 'rules of the market', the WS and GT multi-connectivity; all suggest that the Aegeans also contracted business with Egypt via 'intermediaries', and so did Egypt; i.e. indirect contact was also applicable. The Aegean dealt with Egypt via its diasporas, gateway communities and foreign 'business partners' (e.g. Ugarit, Cyprus, regions where Minoan frescoes have been unearthed, etc.). To the author's mind, early Second Millennium A-E interactions were primarily indirect, due to the difficulties of seafaring and the lack of formal A-E diplomatic relationship. In terms of mechanisms of exchange and seafaring routes, M-H relations were, to a certain extent, indirect (via Cyprus and Syro-palestine), with objections. If A-H contact was direct during the Hyksos Period, any Aegean connections with Middle and Upper Egypt were probably indirect, via the Hyksos, or via other cultures networking with the Theban dynasties. Nonetheless, there was a change of atmosphere in A-E relationships: from the end of the Hyksos Period, or during the early / mid eighteenth dynasty (depending on the date of the Avaris murals),

1953 e.g. [P163], [P114] - though problematic in date – and only hypothetically functioning as such.
1954 e.g. Avaris frescoes -if they are seen as a diplomatic present- and Aegean processional scenes.
1955 The question-mark following the Avaris frescoes refers to the debate whether the frescoes were painted as a royal gift of the Knossian palace to Avaris or by itinerant artisans. See chapter Five. Finds [P163?], [P114?] are also problematic as the royal titles on them do not necessarily suggests that these were luxury inter-elite diplomatic presents.
1956 As seen in (tables 28, 29, 34, 36, 37a-c, 39).
1957 This concept derives from the fact that Aegean evidence in Hyksos strata in the Delta is limited (chapter Four). Unless of course one accepts that the Avaris frescoes date the late Hyksos Period and that Khyan's lid from Knossos was a diplomatic gift. In that case, one may suspect a more direct interaction between the Aegean and the Hyksos. See chapter Five. For the 'indirect' seafaring routes see chapter Three: 'Aegean ↔ Egypt: Trade and contact routes'.
1958 This is because Moeller and Marouard (2011) have shown that official relations between Lower and Upper Egypt were kept open during the Hyksos Period, although there must have been impediments. The latter means that the Theban dynasties were not entirely disconnected from the EM.
interactions between the Aegean and Egypt appear more direct than indirect.\footnote{1959} However, indirect contact did not cease to operate altogether. In the early eighteenth dynasty, Egyptian expeditions in Syro-Palestine encouraged Egypt's indirect connection with old and new trade partners of the Syrians; among them, the Aegeans. The number of Aegyptiaca in the Aegean increased, along with cultural and other transactions between the two parties. The Avaris frescoes, the Aegean processional scenes and Aegeanising iconography of eighteenth dynasty Theban tombs, textual material and transcultural exchange of commodities, and later, the murals of Malqata, indicate that the Aegeans dealt with Egypt directly.\footnote{1960}

In the previous paragraphs, the author referred to regional differences in matters of interconnectivity with the Aegean during the Hyksos Period Egypt. Some geographical specification is also needed for the Aegean. Since this thesis mainly refers to Crete, the author underlines that from the mid to late Neo-palatial onwards, C-E relations demonstrate a more direct character compared to previous periods.\footnote{1961} Considering that Mycenaean - Egyptian relations also exhibited a rather direct model (especially during the reign of Amenhotep III),\footnote{1962} it is likely that the Mycenaean presence on Crete encouraged direct interactions between the Greek Mainland and Egypt, and eventually the Mycenaens took trade control in the EM and Egyptian interrelations \textit{per se}. But

\footnote{1959} Therefore, the author agrees with Watrous 1992: 172-178; Carinci 2003: 31 and others, who argue that from the early eighteenth dynasty to Amenhotep III the Cretan-Egyptian relationship was direct. Cline (1991: 30), also suggested that during the LM I-II periods the Egyptians had conducted trade partnership with Crete and that a 'direct route between Egypt and Crete was utilized'.\footnote{1960} For Malqata see note 707.\footnote{1961} As seen from the archaeological evidence, the eighteenth dynasty date of the frescoes and the Aegean processional scenes (chapters Four-Six).\footnote{1962} (table 36)
even before Amenhotep III, Morgan's notion about the similarities of the Avarian hunting scene with Greek Mainland iconography might even suggest direct official contact between Mainland Greece and Avaris. The islands of the Greek Archipelago, however, always dealt with Egypt indirectly; first via Crete, and later via the Mainland. Even so, among the islands, pre-eruption Thera in particular, seems to play a more active role in A-E interactions (e.g. the flotilla fresco, similarities in Theran - Avarian painting, etc.), to the point that a possible direct Theran - Egyptian relationship should be re-evaluated. Still, the limited number of Aegyptiaca from Thera suggests otherwise, i.e. Theran - Egyptian connections via Crete.

Third parties must have played a solid role in A-E relations. Allies and trade partners acted as WS 'links' connecting cores to semi-peripheries, peripheries and margins. Both a direct and indirect, twofold and manifold approach between cores and peripheries is dictated by diplomacy. A-E indirect contact is also justified by GT, e.g. as a strategy for gaining competitive advantage. Therefore, both Aegeans and Egyptians

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1963 Morgan 2010a, with examples. Apart from the official Mycenaean - Avarian contact that could be implied by the Avaris frescoes, direct Mycenaean contact with Thebes is also seen in the Annals {19}.
1964 As seen in chapters Three and Four.
1965 Theran - Egyptian relations deserve an individual analysis and require a separate study. Unfortunately, due to lack of space, the author cannot expand on Theran - Egyptian relations in this thesis.
1966 See above, chapter Seven: The protagonists of the A-E interactions (c 1900 – 1400 BC): 'Third parties' and direct / indirect A-E interactions'.
1967 (tables 28, 29, 34, 36, 37a-c).
1968 As seen in the end of chapter Seven, where equilibria are discussed (e.g. § Hotelling's model of spatial competition). For WST and GT in A-E relations see the end of chapter Four, Five and Six, especially the notions of alliances and coalitions and GT rational learning about the opponents. Moreover, establishing agreements with foreign naval bases was a natural result of the circumstances. Intermediate stops made seafaring easier and less dangerous. The list of Kom el-Hetan {23} demonstrates exactly that multiple approach: diplomatic and trade openings towards various directions.
must have cemented trade and other alliances with third parties and maintained contact with gateway communities (colonies, conquered areas, establishments of minorities abroad), in order to assist the process of A-E interactions. The importance of third parties in A-E interactions was so integral, to the point that, when contact with third parties was lost, significant damage to A-E relationships, or even an embargo, would be inevitable. It is theoretically possible that the Mycenaeans took over the Aegean connections with Egypt for that particular reason, i.e. a broken indirect link between the Minoans and the Egyptians.

8. **Research question Eight: In a world system of core-periphery interactions, what role did the Aegean and Egypt play? Who was in the orbit of whom?**

In Aegeocentric research, Aegean societies are often treated as commercial leaders in much of the Mediterranean (see, for example, the concept of 'Minoan Thalassocracy'). Similarly, in Egyptocentric scholarships, Ancient Egypt has been historically considered as a nation powerful like no other, especially with regard to the country's expansionary policy. The WS and GT approach however, place Egypt, the Aegean and other EM nations into a multifaceted, macro-scale view, where elements collide and zones / players interact via positive or negative forces boosting or hindering one another.

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1969 Minoan Thalassocracy: *(table 28).*
1970 *(tables 28, 29).*
1971 See chapter Two.
The WS approach has been criticised for underestimating culture and being too focused on economy instead.\textsuperscript{1972} Nonetheless, economy and culture are bound together. Ultimately, a robust economy signifies a powerful and influential culture. In the Bronze Age EM, core nations competed with one another for access to resources, economic dominance and political power. Still, the zone-to-zone liaison at economic and political level inevitably led to cultural networking.

It now remains to discuss the exact role of Egypt and the Aegean in the jigsaw puzzle of EM relations.

According to the WS approach, a world system is dynamic and perpetually altering over time. Therefore, individual states can gain or lose their core / semi-periphery / periphery status and acquire a new position and role in WS terms.\textsuperscript{1973} Such an effect can be seen in the case of A-E relationships, and their interactions with third parties, as seen below:\textsuperscript{1974}

I) Third Millennium BC:

• Pre-palatial Crete remained in the shadow and margin of the Egyptian hyper-power. A-E and C-E relations were indirect, via other Mediterranean regions, rather than direct.

\textsuperscript{1972} e.g. by Barfield 1997.\textsuperscript{1973} See chapter Two: 'Characteristics and behaviour of the world system'.\textsuperscript{1974} The following discussion is based on chapter Three: 'Eastern Mediterranean, World System and Game Theory: the example of the cog-wheel machine' and the tables accompanying this part of the thesis.
II) 2000/1950-1800 BC\textsuperscript{1975}

- Crete progressively gained a higher status and turned into a core within the Aegean area. The Aegean islands and the Mainland were mostly marginal to Crete. Yet Kastri (at Kythera) was peripheral to Crete.

- Egypt was a core within the EM world system. It was in contact with other EM locations (e.g. Cyprus, the Levant), the roles of which were mainly peripheral or semi-peripheral in relation to Egypt. At the end of this period, the core of Egypt started competing against other Near Eastern cores or semi-peripheries aspiring the core status.\textsuperscript{1976}

- Crete was marginal to Egypt. C-E and generally A-E interactions appeared more indirect (via EM ports) rather than direct.

III) c 1800 - 1600 BC.\textsuperscript{1977}

- Crete maintained the core status within the Aegean. The Aegean islands acted as cultural, economic and possibly political satellites of Crete; i.e. they were (semi-)peripheral to Crete. Yet, the Archipelago - Egyptian interactions were mainly - but not exclusively - indirect, via Crete. The Mainland was now peripheral to Crete, receiving influences from the island. It remained mostly marginal with respect to Egypt, but it was progressively gaining power.

\textsuperscript{1975 (table 59).}
\textsuperscript{1976 A reminder that semi-peripheries naturally attempt to exert their own control over some peripheries. Further, semi-peripheries act as intermediaries and linkages between cores and peripheries. Semi-peripheries can develop both from upgrading peripheries, and from declining cores. See chapter Two: 'Characteristics and behaviour of the world system'.}
\textsuperscript{1977 (table 60).}
• In Egypt one sees the beginning of a close collision between cores: Asiatics plus their EM allies, versus Egyptians; a collision that took place in the land of Egypt itself. EM regions, including Cyprus, kept playing the role of peripheries and semi-peripheries primarily toward Lower Egypt, with some 'states' demonstrating a tendency to operate as cores.

• Crete remained marginal with a tendency to become peripheral with regard to Lower Egypt (through indirect contact, via other EM ports; including Cyprus) and, at times, it was almost marginal with respect to Middle and Upper Egypt.\(^{1978}\)

• C-E, and in general A-E contact still appears indirect; although more more intensified in relation to the previous phase (2000/1950-1800 BC).

IV) c 1600-1400/1350 BC.\(^{1979}\)

Because of historical complexity, the phase is split into two centuries:

Sixteenth century BC

• Crete, and particularly Knossos, remained a key player in international relations. Contact was maintained and intensified with the rest of the Aegean and with Lower and Upper Egypt, mainly via intermediate EM stations (e.g. Cyprus). The Mainland gained power and new trade partners in the Near East. Of course, if a more direct approach between Crete and Lower Egypt is preferred at the time, one can also assume that Crete tended to be semi-peripheral to Lower Egypt.\(^{1980}\)

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1978 Relations with Upper Egypt were possible, but still marginal. See chapter Three, phase '1800-1600 BC'.

1979 (table 61a,b).

1980 It depends on the date of the Thera eruption and that of the Avaris frescoes. See chapters One: 'Chronological considerations' and Five: 'Stratigraphy and date of the Avaris frescoes'.

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Overall, Egypt retained the core status within the EM world system, although it experienced intense polarisation.

**Fifteenth century BC**

- In the Aegean, Crete was experiencing dramatic changes. Due to its strategic geographical position, the island maintained a high profile in the EM, dealing both directly and indirectly with Egypt and the rest of EM. With reference to Egypt, it acted as a semi-periphery, and the Aegean islands played the role of a periphery (they interacted with Egypt mainly indirectly; first via Crete and later via the Greek Mainland). The Mainland progressively gained more and more power and was soon (c 1400 BC onwards) to become the new Aegean core, and semi-peripheral to Egypt, i.e. it would deal with Egypt directly.

- Egypt as a core, united under the newly established eighteenth dynasty rulers in Thebes, soon demonstrated characteristics of a hegemony, i.e. it was clearly dominant in the Near East. The leading role of Egypt was the result of a combination of politics, diplomacy, warfare and profit accumulation from home and abroad. The Egyptian hegemony collided with some EM cores (e.g. Syria-Palestine) and some semi-peripheries (e.g. Nubia) in order to maintain its status.

In the opinion expressed by the author on the WS roles in the EM, the reader may notice that the perspective within which A-E relations are confronted is rather Egyptocentric. This is because the number of Egyptian (-ising) finds from the Aegean is far larger than the one of Minoan / Aegean (-ising) items discovered in Egypt. This tells researchers
that, at least within economic parameters, Egypt was a lot more potent than the Aegean. Thus, since the WS approach is mainly based on economic criteria, Egypt has to range from core to hegemony whereas the Aegean, in respect to Egypt, must range between margin and semi-periphery. However, Crete, and later the Greek Mainland, played a primary and central role in the Aegean itself, to the point that they influenced foreign communities.

Last, the thesis returns to the ‘Five Thousand Years World System’ of Frank.\textsuperscript{1981} According to Frank, 1700 - 1400 BC is a descending phase.\textsuperscript{1982} A descending phase to cover the years between 1700 and 1400 BC, strictly with respect to A-E interrelations, cannot be confirmed. Overall, this is a period of progress for both the Aegean and Egypt and their interactions. There are of course periods of decline, such as the aftermath of the Thera eruption, or the Hyksos presence in Egypt, but the general impression, entirely from the perspective of Egypt and the Aegean and especially after 1500 BC, is a positive one. However, Frank looks at the general performance of the world system and does not focus on a particular area. Generally speaking, this phase may be 'descending' for the world system as a whole;\textsuperscript{1983} but the decline of specific WS zones promotes certain EM areas, and A-E liaison in particular.

\textsuperscript{1981} See chapter Two: ‘A five thousand year single world system?’
\textsuperscript{1982} See (table 25).
\textsuperscript{1983} The reasons why are provided in (table 28).
9. **Research question Nine: What were the mutual benefits of contact, and the factors that promoted mutual stability in the Eastern Mediterranean?**

The mutual benefits of contact in the EM were:

- economic strengthening for all parties, via exchange, politics and colonialism. This is demonstrated by the strong Minoan influence in the Aegean, while, Egypt's prosperity is illustrated by contact with other regions (including the Aegean).

- 'empowered' and 'authorised' governments via international networking;\(^{1984}\) as in the case of the processional scenes in Thebes.\(^{1985}\)

- an environment of official and unofficial diplomacy, which was as equally vital as warfare and trade. A common diplomatic protocol; e.g. exchange of diplomatic gifts between rulers. These gifts ranged from precious raw materials and finished items, to even the commission of wall-paintings.\(^{1986}\)

- transcultural awareness via migrations and the exchange of items and ideas, but at the same time, maintenance, development and 're-shaping' of cultural diversity; e.g. 'migrant art': local artistic style (frescoes in the Aegean or purely Minoan artefacts) versus international style (frescoes outside the Aegean,

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\(^{1984}\) i.e. rulers and state officials that secure and increase their political, social and economic prestige throughout their relations with foreign governments, as seen in chapter Six: 'Aegean processional scenes in Thebes: Historical reality and authenticity'.

\(^{1985}\) Chapter Six.

\(^{1986}\) Chapters Four and spreadsheet, and Five with examples.
artefacts demonstrating 'koinae' on Crete and elsewhere.)

- palatial and extra-palatial trans-social bonds via travelling individuals.
- assisted development; e.g. 'transcultural' alliances: fighting against common enemies and providing support in emergences.
- EM world system comes into competition with other world systems (e.g. Europe, Mesopotamia, etc.).

The factors promoting mutual stability in the EM were the same as the pro aequilibrio forces presented in chapter Seven, summarised in the following groups:

I) politics and administration

- constantly-strengthened, regular trans-regional contact
- diplomacy
- trans-regional political and economic alliances and other strategic partnerships; common ambitions and mutual benefits.
- gift-exchange among rulers.

and some pro aequilibrio and contra aequilibrium factors:

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1987 Chapters Four and Five.
1988 Chapter Seven: e.g. diplomatic brides, travelling artisans, sailors, etc.
1989 For examples and some very specific reasons highlighting why Egypt might have been connected to the Aegean and vice versa see chapter Six: 'Aegean processional scenes in Thebes: Historical reality and authenticity'.
1990 Chapter Seven: 'Searching for equilibria in A-E interactions'.
1991 Discussed in chapter Two (as part of GT) and chapter Seven: 'Possible Aegean - Egyptian alliances and treaties'.
1992 e.g. the Avaris frescoes as a diplomatic gift (chapter Five).
• warfare and 'peace through strength' (i.e. peace through strength of arms) – an Egyptian tactic. For instance, movement of arms and armies to promote stability.

• migration

• propaganda and the cultivation of fear to enhance power.

II) the market.

• trade and exchange

• reciprocity

• and colonialism and gateway populations as forms of wealth distribution.

III) other:

• regular trans-societal communication: non-official contact; i.e. via travelling professionals.

• incentive for cultures and states to develop within a wider EM geographical space (contra ethnic isolation); e.g. the cosmopolitan attitude at Malia (EM

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1993 Chapter Six.
1994 Chapter Seven: as seen in the case of the possible movement of Aegean individuals to Egypt and elsewhere.
1995 Chapter Six: as seen in the processional scenes in Thebes.
1996 Chapter Four.
• artistic koiné - [P374]).

• cultural similarities operating as trans-societal connectors (e.g. similar administrative practices or artistic fashions within the EM).

10. **Research question Ten: What has been gained by using Game Theory and Cultural Multilevel Selection in the field of Aegean - Egyptian relations?**

With respect to GT, research has gained:

• an alternative, fresh view-point for the study of A-E and EM relations.

• a comparative tool that double-checks and confirms the validity of WST with respect to these relations, while adding to its results.\(^{1997}\)

• a human-focused methodology which accompanies the state-focused WST.\(^{1998}\)

• the understanding of the mutual benefits of contact,

• an analytical tool examining why, how and to what extent EM people(s) co-operated and learnt to co-exist; even with their enemies,

• the revealing of factors that promoted mutual stability in the EM,

• and the corroboration of the notion that the equilibrium in the EM was maintained via a very complex matrix of often controversial motives, powers and interrelations.\(^{1999}\)

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1997 Chapter Two: 'Game Theory and Aegean - Egyptian interactions: similarities to the World System/s approach'.
1998 As seen e.g. in chapter Five: 'Re-evaluating the Avaris frescoes through GT and the world systems approach'.
1999 See research question nine in the conclusions, and chapter Seven: 'Searching for equilibria in A-E
• a methodological tool for the examination of the causes and motive forces behind historical events,
• an alternative explanation of how people(s) (and particularly the state) approached complex decisions in EM historical events.\textsuperscript{2000}
• and the privilege of placing emphasis on the role of diplomacy and strategic decision making in A-E and EM relations.\textsuperscript{2001}

With regards to CLMS, as the author has already shown,\textsuperscript{2002} this model requires further work in order to provide fruitful results with respect to A-E relations 1900-1400 BC.\textsuperscript{2003} Yet, the future potential of CLMS in EM interactions is promising, and, together with WST and GT; and Knappett's recent application of Network Theory in archaeology and transcultural relations;\textsuperscript{2004} it could potentially enlighten the background of EM interactions in the future.

I. \textit{Summary of research}

Two major aspects of this thesis advanced the study of A-E relations:

The first was a spreadsheet of Egyptian and Egyptianising material on Crete, searchable with a few mouse-clicks. Statistic results and quantitative analysis can also be produced

\textsuperscript{2000} As seen e.g. in chapter Six: 'Re-evaluating the Aegean processional scenes in Thebes through GT and the world systems approach'.
\textsuperscript{2001} As seen in chapters Five and Six.
\textsuperscript{2002} See the very end of chapter Two: 'The Cultural Multilevel Selection model'.
\textsuperscript{2003} For the CMLS see chapter Two.
\textsuperscript{2004} Knappett 2011; 2013.
from this database. The author hopes to share this file with her colleagues.

The second contribution was the introduction of GT as a way of understanding the mechanisms of A-E and EM relations. The GT point-of-view presented the factors that promoted mutual stability in the EM, showed why it was so important for geographical regions to maintain contact with each other and demonstrated how state strategies operated at a political and economic level. In the future, GT can potentially be applied to topics and data beyond the limits of this thesis; i.e. the analysis of written sources demonstrating A-E interactions, the causes of the 'collapse' of LBA civilisations and the development of trade, property and power privatisation in the Ancient Near East.

To summarise this thesis, between c 1900 and 1400 BC Crete interacted with Egypt both directly and indirectly (i.e. via other EM third parties), as indicated by archaeological finds and texts. The relationship of the Aegean islands with Egypt, however, appears more indirect (via Crete and later, via the Greek Mainland), rather than direct. The Aegean interacted with Egypt at an economic, political, social and cultural level. Both state and extra-palatial individual played a crucial role in these relations, and the contribution of extra-palatial individuals (sailors, traders, artists, potters, etc.) in these transactions should not be underestimated. It is certain that Aegeans had visited Egypt at the time (see Aegean frescoes at Avaris, Aegean processional scenes at Thebes, etc.), and it is also possible that Egyptians had also visited the Aegean (e.g. some Aegyptiaca may have reached the Aegean in the hands of
Egyptian individuals). The question of Aegean individuals settled in Egypt remains yet to be archaeologically confirmed. In the author's view the establishment of Egyptian individuals - in small numbers - in the Aegean is even more debatable, but it cannot be ruled out altogether. The former scenario (an Aegean establishment in Egypt) appears more likely than the latter (a small number of Egyptians living in the Aegean); still, both concepts are under discussion and the Aegean and Egyptian ethnic identities ought to be redefined.

In the WS frame of core-periphery interactions, the Aegean mainly ranged from marginal to (semi-)peripheral with respect to the Egyptian core. Nonetheless, from c 1500 BC onwards, the Aegeans had a closer relationship with Egypt more than ever before, and the majority of A-E interactions were direct. Around that time, although the precise date is still a matter of debate, the Aegeans painted their frescoes at Avaris and are depicted in the eighteenth dynasty tombs as the Keftiu and the people of the Isles in the Midst of the Great Green who offered their presents to the Egyptian court. The quantity of Aegyptiaca in the Aegean significantly increased from c 1500 onwards. From this time onwards, Egypt generated a climate of 'Egyptomania' in the EM, which proved to be a major influence to Crete, and lasted until the major upheavals at the end of the thirteenth century.

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2005 See chapter Seven.
END OF VOLUME ONE

THE THESIS CONTINUES TO VOLUME TWO AND THE CD (APPENDICES)
BIBLIOGRAPHY AND ONLINE RESOURCES

The same document is provided printed and on the CD

Abdul-Qader, M. (1966) *The development of the funerary beliefs and practices displayed in the private tombs of the New Kingdom at Thebes*. Cairo.


1 Bibliography
Alexiou, St. (1952) Νέα στοιχεία δια την Υστέραν Αιγαιακήν χρονολογίαν και ιστορίαν in KrChron 6. pp. 9-41.

—(1955) Ανασκαφή Κατσάμπά Κρήτης in Practica (Πρακτικά). pp. 311-320.


2 Bibliography


New York.


6 Bibliography


7 Bibliography


Bevan, A. H. (2001) Value regimes in the eastern Mediterranean Bronze Age: a study
through stone vessels (PhD dissertation submitted to the Institute of Archaeology: University College London).


—(1999a) Une citadelle royale à Avaris de la première moitié de la XVIIIe dynastie et

9 Bibliography


10 Bibliography


—and Van der Plicht, J. and MacGillivray, A (2009) The Minoan Santorini eruption and

15 Bibliography


19 Bibliography


Greek epic and Aegean Bronze Age archaeology. Austin. pp. 157-166.


22 Bibliography


―(1913) *Five Theban tombs*. EES. London.


—(1948) *Seven private tombs at Kurnah (= Mond Excavations at Thebes 2)*. London.


—and Nn.de G. Davies (1933) *The tombs of Menkheperrasonb, Amenmose, and another (nos. 86, 112, 42, 226) (= TTS 5)*. London.

—(1963) *Scenes from some Theban tombs (Nos. 38, 66, 162, with excerpts from 81)*. Oxford.


—(1899-1900) *Knossos: Summary report of the excavations in 1900* in *ABSA* 6. p. 3-59.


29 Bibliography


—(1969) *The literature of Ancient Egypt*.


Fecht, G. (1972) *Der Vorwurf an Gott in den 'Mahwnworten des Ipu-Wer'*. Heidelberg.


---and Gills B.K. (2000) The five thousand year world system in theory and praxis in


—(1947) *Ancient Egyptian Onomastica.* London.


36 Bibliography

—(2004) Harageh: an Egyptian burial ground for the rich, around 1800 BC. London.


—(1990) *Ägäier in ägyptischen Diensten zwischen ca. 1550 und 1200 v.Chr.* in Laverna I. pp. 18-49.


—with Stefani, E. and Banti, L. (1977) *Haghia Triada nel Periodo tardo Palaziale* in
ASAtene 55. pp. 9-296.


40 Bibliography
Hayward, L.G. (1990) *The origin of the raw elephant ivory used in Greece and the Aegean during the Late Bronze Age* in *Antiquity* 64. pp. 103-109.


Helck, W. (1956) *Untersuchungen zu Manetho und den ägyptischen Königslisten*
(Unters. 18). Berlin.


42 Bibliography


—(2011a) *Egyptian imitations of Cypriot Base Ring Ware in the Eastern Mediterranean*


—(2012b) *Die Synchronisierung der minoischen Alt- und Neupalastzeit mit der ägyptischen Chronologie*. Vienna.


44 Bibliography


— (1968) *Further notes on New Kingdom chronology and history* in *ChrÉg* 43:68. pp. 312-324.


— (1986) *The basics of Egyptian chronology in relation to the Bronze Age (pt 1) and Supplementary notes on 'the basics of Egyptian Chronology' (pt 3)* in Paul Åström (ed.) *High, middle or low?* Gothenburg. pp. 313-324, 152-159.


—(1994) Emergence, development and decline on Bronze Age Cyprus in Mathers, C. and Stoddart, S (eds) Development and decline in the Mediterranean Bronze Age. Sheffield.


Komninos, P. Ch. (2011) *Το τοπίο στις προϊστορικές τοιχογραφίες. Αιγαίο και ανατολική Μεσόγειο (1700-1300 π.Χ.).* Θεσσαλονίκη.


53 Bibliography


Kutlu, E. (1963) *The pottery of the Assyrian Colony Period according to the building levels of the Kaneš Kârum* in *Anadolu / Anatolia 7*: pp. 87-99.


—(1982) Your money or your life! A portrait of an Assyrian businessman in


Lorton, D. (1977) *The juridical technology of international relations in Egyptian texts*
through Dyn. XVIII. Baltimore / London.


—(1995) A Minoan cup at Tell el-Dab'a in Â&L 5. pp. 81-84.


—(2013) Absolute MM III – the biggest picture. Early Neopalatial Crete's relations with the ancient Orient in the mid-second millennium BC in McDonald, C. and Knappett, C. (eds) Intermezzo, intermediacy and regeneration in Middle Minoan III


Mediterranean, and considering a case for the latest (most recent) date for the Thera eruption in Radiocarbon 54:3-4. pp. 449-474.


—(2010b) Lions from Tell el-Dab'a in Å&L 20. pp. 325-355.

20 April 2011).


—(1968-76) *Excavations at Thera.* Athens.


—(1996) *Die absolute Chronologie der Periode SM II/SH IIB* in De Miro et al. (eds)


Merrillees, R.S. (1968) The Cypriote Bronze Age pottery found in Egypt. Lund.


244-253.


65 Bibliography


Müller, V. (2008) *Tell el-Dab’a XVII. Opferdeponierungen in der Hyksoshauptstadt Auaris (Tell el-Dab’a) vom späten Mittleren Reich bis zum Frühen Neuen Reich. Teil I: Katalog der Befunde und Funde; Teil II: Auswertung und Deutung der Befunde und Funde*. Vienna.


Murray, M.A. (Mary Ann) (2000) *Fruits, vegetables, pulses and condiments* in


68 Bibliography


Nikita, K. and Henderson, J. (2006). Glass analyses from Mycenaean Thebes and
Elateia: compositional evidence for a Mycenaean glass industry in J GLASS STUD 48. pp. 7-120.


72 Bibliography


—(1991) The impact and implications of the Egyptian and 'Egyptianising' material found on Bronze Age Crete, ca. 3000-ca. 1100 B.C. (unpublished PhD thesis submitted to the University of Toronto).


Pritchard, J. B. (1951) *Syrians as pictured in the paintings of the Theban Tombs* in *BASOR* 122. pp. 36-11.


—(1996) *Analysis of the weight assemblages from the Late Bronze Age shipwrecks at Uluburun and Cape Gelidonya, Turkey* (PhD dissertation submitted to Texas A&M University).


—(2000) *The balance weights from the Late Bronze Age shipwreck at Uluburun* in Pare, C. (ed.) *Metals Make the World Go Round: The supply and circulation of metals in*


Quirke, S. (1990) Who were the Pharaohs. London.


—(1996) *Aegean breechcloths, kilts and the Keftiu paintings* in *AJA* 100. pp. 35-51.


Reich, J.J. (1970) *The date of the Hieroglyphic Deposit at Knossos* in *AJA* 74. pp 406-408.


—(1957) Four eighteenth dynasty tombs. Oxford (based on material amassed by Davies N.de G and Davies, N.M.).


82 Bibliography


—(2009) A bull-leaping fresco from the Nile-Delta and a search for patrons and artists 84 Bibliography


Smith, S. T. (1992) *Intact tombs of the seventeenth and eighteenth dynasties from*
Thebes and the New Kingdom burial system in MDAIK 48, pp 193-231.


88 Bibliography


89 Bibliography


—(1968) *Deux nouveaux fragments de la stèle d’Amosis relatant une tempête in RdE* 20. pp. 127-134


— (1956) *L'Egypte et le monde égéen pré-hellénique: étude critique des sources égyptiennes (du début de la XVIIIe à la fin de la XIXe dynastie)*. Cairo.


92 Bibliography


93 Bibliography
—(1991b) The finds at Tell el-Dab'a and Middle Minoan chronology in Ä&L 2. pp. 115-118.


— (1979) *The stone vessels from the Bronze Age settlement at Akrotiri, Thera* in *ArchEph*. pp. 82-113.


—(1992) Kommos III. The Late Bronze Age pottery. Princeton.


—(forthcoming) The dating game: radiocarbon, tree-ring and ice-core dating (paper delivered at the IFA, 28 September 2007).


—(2009) *The bull leaping scenes from Tell el-Dab’a* in AJA 113. pp 479-480.


101 Bibliography


Respice, adspice, prospice
ABSTRACT

This thesis explores the mechanisms of relations between the Aegean (focusing on Crete and Aegean islands such as Thera) and Egypt (including the Hyksos) from 1900 to 1400 BC. A fundamental tool has been the creation of a searchable database of the portable finds (at the moment, a unique resource) classified as Aegean, Egyptian, Aegeanising, Egyptianising, etc. In addition, the Avaris frescoes and the Aegean processional scenes in Thebes were examined in detail.

Two approaches were applied to this evidence of Aegean-Egyptian interactions: World Systems Theory, applied here consistently and in depth (as opposed to earlier, broader discussions of Eastern Mediterranean interactions) and, for the first time in this field, Game Theory. The principles of this approach have been tested and found valid for this data. In contrast to World Systems Theory, Game Theory highlights the role of individuals in Aegean-Egyptian interactions, and not solely the roles of states. It has also enabled the exploration of the causes behind historical events and the mutual benefits of contact, as well as emphasising the factors that promoted mutual stability in the Eastern Mediterranean.

As a result it has been possible to show that the Aegeans were key players in Eastern Mediterranean relations.
To Martin who is always beside me along my path
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CONCLUSIONS

1. Research question One: How secure are Aegean - Egyptian chronological interlinkages?

2. Research question Two: What were the mechanisms of cultural transition, networking, trade and exchange between the Aegean and Egypt?

3. Research question Three: What mechanisms of economic relationship operated in Aegean - Egyptian transactions? What reasons made Aegeans and Egyptians interact with each other?

4. Research question Four: Were there Aegeans settled permanently in Egypt and Egyptians settled permanently in the Aegean? If there were Aegeans / Minoans in Egypt, why does the archaeological evidence not reveal their presence there? Was there a political, economic, diplomatic or other alliance between the Aegean and Egypt? Does the theory of dynastic marriages and that of the official embassy visits between the two locations have any validity?

5. Research question Five: Can one envisage a Bronze Age Egyptomania in the Aegean? Or, even, an Egyptian Aegemonia? What do archaeological finds and texts suggest?

6. Research question Six: Who 'pulled the strings' in Aegean - Egyptian relations? The palaces and institutions? Or extra-institutional individuals?

7. Research question Seven: Between c 1900-1400 BC, were Aegean - Egyptian relations direct or indirect?

8. Research question Eight: In a world system of core-periphery interactions, what role did the Aegean and Egypt play? Who was in the orbit of whom?

9. Research question Nine: What were the mutual benefits of contact, and the factors that promoted mutual stability in the Eastern Mediterranean?

10. Research question Ten: What has been gained by using Game Theory and Cultural Multilevel Selection in the field of Aegean - Egyptian relations?

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LIST OF TERMS INCLUDED IN THE GENERAL TERMINOLOGY

A
Aegeaca, Aegeanising, Aegyptiaca, Anathema, Antique artefacts (or heirlooms),
Archipelago, Artefacts of foreign inspiration, Assimilation, Autarky

B
Barter economy, Brotherhood, Buon fresco (or: al fresco)

C
Capital (economic term), Capitalism, Cliodynamics, Colonialism, Colonisation,
Command or mobilisation economy, Comparandum, Conflict Theory, Crafts-worker,
Cultic, Cyclades

D
Daemon or Demon, Decision Theory, Diaspora, Diplomacy, Disturbed archaeological
deposit

E
Egyptianising, Egyptomania, Elite, Emporium, Entrepreneurship, Equilibrium (=Nash
Equilibrium), Evolutionary Game Theory, Exotica
Flying gallop

Game, Game Theory, Gateway, Gift exchange or 'greeting gifts', Genius, Gravidenflasche.

Hellenorientalia, Historic recurrence, History of Game Theory, Horror vacui, Hotelling's model of spatial competition.

Imitations of foreign items, Imperialism, Innovation, Integration, Intonaco

no terms

Kantharos, Koine

Levant, Locally produced, made of foreign material artefacts, Luxury goods
M
Magazine, Market, Market economy, Mercandilism, Middleman / intermediary,
Minoica, Minoanising, Mixed economy, Modified exotica, Monetisation,
Multiculturalism

N
Network Theory, Networking

O
Orientalia

P
Parturient, Pharaoh, Player, Private accumulation, Protocapitalism, Public accumulation

Q
no terms

R
Rationality and learning process in games, Reciprocal or customary economy, Replicas
of foreign artefacts, Repoussé, Revenue or redistribution economy, Rivalry

S

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Schnabelkanne, Secco (or: al secco), Seals and sealings, Sedentism, Seriation, Sinopia, Sociocultural evolution, Souvenir, Sphinx, Staple goods, Stela, Strategic form games, Surplus, Sympathetic magic.

Т
Taxation, Thalassocracy, Theme, Theoretical approaches of ancient economy, Theory of moves, Trade, Trader -and other professional - 'guilds', Traders, Traders' class, Traders' multiple careers, Transculturalism, Travelling professionals (artisans / craftsmen, traders, etc.), 'Treaty' trade, Tribute

У
Upper and Lower Egypt

Ư
no terms

Ư
Wealth accumulation → prestige, 'Western String', World economy

Χ
Xenomania

Ϋ

xli
LIST OF COMMON ABBREVIATIONS USED IN THIS THESIS

In alphabetical order:

A: Aegean (in chapter Four: discussion of the Kom el-Hetan list only)
A-E: Aegean - Egyptian
A-H: Aegean - Hyksos
AD: Anno Domino
a.k.a: also known as
Akr: Akrotiri
BC: Before Christ
BD: Book of the Dead
BCE: Before common era
c: circa
C-E: Cretan - Egyptian
C-H: Cretan - Hyksos
cm: centimetres
CMLS: Cultural Multi-level Selection
CMS: Corpus of Minoan and Mycenaean Seals
C14: Carbon-14
d or diam.: diameter
EC + Latin numbers: Early Cycladic
E: Egypt (in chapter Four: discussion of the Kom el-Hetan list only)
E: East
EA: el-Amarna (the Amarna Letters are implied)
EH + Latin numbers: Early Helladic
EM + Latin numbers: Early Minoan
EM: Eastern Mediterranean
exc.: excavation
fig.: figure
FIP: First Intermediate Period
HA: Harageh / otherwise stated as Haraga
GT: Game Theory
ha: hectare
hpd: highest posterior density
LC: Late Cycladic
LH: Late Helladic
LM: Late Minoan
m.: metres
MC + Latin numbers: Middle Cycladic
M-H: Minoan - Hyksos
MH+ Latin numbers: Middle Helladic
MK: Middle Kingdom
MM + Latin numbers: Middle Minoan
N: North
MBA: Middle Bronze Age
NB: Nota Bene
NK: New Kingdom
LBA: Late Bronze Age
OK: Old Kingdom
ph: phase
S: South
SIP: Second Intermediate Period
str: stratum
T-E: Theran - Egyptian
TIP: Third Intermediate Period
TT: Theban Tomb
Urk: Urkunden des ägyptischen Altertums
W: West
Wb: Altägyptisches Wörterbuch
WSI: White Slip One (Cypriot pottery)
WS: world system
WST: World System Theory
Abbreviations on the list of publications and internet resources

An attempt has been made to provide all most common abbreviations. For any undefined abbreviations, the thesis follows the list of abbreviations provided by the American Journal of Archaeology, accessed on http://www.ajaonline.org/pdfs/111.1/AJA1111_Editorial_Policy.pdf, the Egyptologists Electronic Forum (EEF) on http://www.egyptologyforum.org/EEFrefs.html and the Journal of Egyptian Archaeology on http://www.ees.ac.uk/userfiles/file/JEA-abbrev2-1.pdf. For any undefined sources related to sociology, the world systems theory, game theory, politics and economics see the journal abbreviations on http://www.aqualight.info/journal_abbrevs/abbreva.htm.

A.A.A. = Athens Annals of Archaeology

(A) BSA = Annual of the British School at Athens

AD = Archaeological Dialogues

AfO = Archiv für Orientforschung

AJA = American Journal of archaeology

Ä&L = Ägypten und Levante

Am. Sociol. Rev. = American Sociological Review

ANES = Ancient Near Eastern Studies journal.


ANNU REV SOCIOL = Annual Review of Sociology

ArchEph = Αρχαιολογική Εφημερίδα / Αρχαιολογική Εταιρεία

AS = Anatolian Studies

ASAtene = Annuario della Scuola archeologica di Atene e delle Missioni italiane in Oriente.

AWE = Ancient West and East

BAR = British Archaeological Reports, International Series
BASOR = Bulletin of the American Schools of Oriental Research
BCH = Bulletin de correspondance hellénique
BiblArchR = Biblical Archaeology Review
BIFAO = Bulletin de l'Institut français d'archéologie orientale
BiOr = Bibliotheca Orientalis
BSA = British School at Athens
BSAE = British School of Archaeology in Egypt
BSAE-ERA = British School of Archaeology in Egypt and the Egyptian Research Account
BSFE = Bulletin de la Société française d'Égyptologie; Réunions trimestrielles, Communications archéologiques (Paris)
CA = Current Anthropology
CAH = Cambridge Ancient History
CCRev. = Comparative Civilizations Review
ChrÉg = Chronique d'Égypte
CMS = Corpus of Minoan and Mycenaean Seals
COA = Critique of Anthropology
CretAnt = Creta Antiqua
DIALECT. ANTHROPOL. = Dialectical Anthropology
EA = Egyptian Archaeology (EES periodical)
ECON J = Economic Journal
EES = Egypt Exploration Society
ETA = Etudes de Travaux
GDG = Gauthier

GEB = Games and economic behavior

GM = Göttinger Miszellen

JAAR = Journal of the American Academy of Religion

JACF = Journal of the Ancient Chronology Forum (ISIS: www.newchronology.org)

JAEI = Journal of Ancient Egyptian Interconnections

J. Architec Plan Env Engng = Journal of Architectural Planning and Environmental Engineering

JAOS = Journal of the American Oriental Society

JCS = Journal of Cuneiform Studies

JEA = Journal of Egyptian Archaeology

J Econ Theory = Journal of Economic Theory

JEH = Journal of Egyptian History

JESHO = Journal of the Economic and Social History of the Orient

J EUR Econ Hist = Journal of European Economic History

JFA = Journal of Field Archaeology

J Geophys Res = Journal of Geophysical Research

J Glass Stud = Journal of Glass Studies

JIMA = Journal of Institutional and Theoretical Economics

JMA = Journal of Mediterranean Archaeology.

JMMA = Journal of the Metropolitan Museum of Art

JNES = Journal of Near Eastern Studies
JPR = Journal of Prehistoric Religion
JPS = Journal of Peasant Studies
JRSM = Journal of the Royal Society of Medicine
JSSEA = Journal of the Society for the Study of Egyptian Antiquities
JWCI = Journal of the Warburg and Courtauld Institute
ICE = International Congress of Egyptologists
ICS = International Congress Series
(M)IFAO = (Mémoires publiés par les Membres de l'I) Institut français d’archéologie orientale
IJNH = International Journal of Nautical History
INT SOC SCI J = International Social Science Journal
KrChron = Κρητικά Χρονικά (Kretikà Chronikà)
LÄ = Lexikon der Ägyptologie
MAA = Mediterranean Archaeology and Archaeometry
Mar Mirror = The Mariner's Mirror
MDAIK = Mitteilungen des Deutschen Archäologischen Instituts, Abteilung Kairo
Medizinhist J = Medizinhistorisches Journal
MedMusB = Medelhavsmuseet Bulletin
Misc. Wilbouriana = Miscellanea Wilbouriana
OAth = Opuscula Atheniensia
OJA = Oxford Journal of Archaeology
ÖJh = Jahreshefte des Österreichischen archäologischen Instituts in Wien
OLA = Orientalia Lovaniensia Analecta
OpArch = Opuscula Archaeologica

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PEQ = Palestine Exploration Quarterly

PLoS ONE = Public Library of Science

PM = Palace of Minos (Evans, A.)

PNAS = Proceedings of the National Academy of Sciences of the United States of America

PZ = Prähistorische Zeitschrift

ΠΑΕ = Πρακτικά Αρχαιολογικής Εταιρείας

Q J ECON = Quarterly Journal of Economics

RDAC = Report of the Department of Antiquities, Cyprus

RdE = Revue d’Égyptologie

RIHAO = Revista del Instituto de Historia Antigua Oriental

SAGA = Studien zur Archäologie und Geschichte Altagyptens

SAK = Studien zur Altagyptischen Kultur

SCIEM = Synchronization of Civilizations in the Eastern Mediterranean in the Second Millennium Before Christ

SAK = Studien zur Altagyptischen Kultur

SIMA = Studies in Mediterranean Archaeology

SMEA = Studies in Mediterranean Archaeology

SSEA = Society for the Study of Egyptian Antiquities

TAW = Thera and the Aegean World (Thera Foundation)

Third World Q = Third World Quarterly

Urk. = Urkunden des aegyptischen Altertums

(V)ÖAW = Verlag der Österreichischen Akademie der Wissenschaften

Wb: Berlin-Brandenburgische Akademie Der Wissenschaften
World Archaeol. = World Archaeology  
ZA = Zeitschrift für Assyriologie und vorderasiatische Archäologie  
Z AeS = Zeitschrift für ägyptische Sprache und Altertumskunde  
ZÄS = Zeitschrift für Ägyptische Sprache und Altertumskunde

**Initials of authors in Karetsou et al. 2000a,b**

In the thesis proper and in the appendices, the initials of the scholars who studied the finds are placed straight after the number of the entry in the references. For example, Karetsou et al. 2000a: 181 [168] (Π.Σ.) where Π.Σ. is the name of the scholar who studied item [168], i.e. in this case, Π. Σαπουνά.

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SOURCES OF MATERIAL

Software used for the making of this thesis: Linux Operating System and particularly the Open-Office software.

Tables: All tables are made by the author, apart from (tables 8, 16). The sources of information for the making of these tables and charts are specified in the caption of each table.

Maps: All maps, apart from (map II), are drawn by the author. The primary or secondary sources of these maps are mentioned in the map captions.

Texts / written sources: JSESH (http://jsesh.qenherkhopeshef.org/ for Linux) has been used for Egyptian texts. Some hieroglyphic texts are taken by Thesaurus Linguae Aegyptiae (http://aaew2.bbaw.de/tla/servlet/TlaLogin), an online resource that offered significant support to the author with respect to linguistic needs. The online Perseus Project (Liddell-Scott-Jones) (http://www.perseus.tufts.edu/hopper/search?redirect=true) assisted with the needs of the Ancient Greek texts.

Clip-art: Black and white 'clip-art' in the main body of the thesis: these are taken by http://etc.usf.edu/clipart/

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TABLE OF CONTENTS OF SPREADSHEET AND DETAILS OF INDIVIDUAL SHEETS (sheets are named and numbered from left to right)

A copy of this document is also provided on the spreadsheet (sheet: 'manual')

Appendix of chapter 4

- **Manual**: Table of contents, instructions and permission. This menu is also provided on the spreadsheet.

- **Table 1**: World systems chronological links

- **'Crete (Phillips)'**: This catalogue contains a large number of Aegyptiaca from Crete, as presented in the publication of Phillips 2008. Phillips' catalogue numbers are used. Many of these items have been examined in other publications (e.g. Lambrou-Phillipson 1990; Cline 1994; Karetsou et al. 2000,
etc.). Therefore, further references are provided, together with sources presenting the items with a picture or drawing.

- **'Crete (Karetsou)':** The list contains a number of Aegyptiaca from Crete, discussed in Karetsou et al. 2000 but not included in Phillips 2008. The 'Karetsou catalogue' numbers are used.

- **'Off-island (Phillips)':** This is a list of some of the so-named 'off-island' Aegyptiaca of Phillips 2008. Phillips' 'off-island' group contains items found away from Crete, in the Aegean islands or in Mainland Greece, but have a special connection to Crete. Phillips' catalogue numbers are used by the current author.

- **'Thera (Karetsou)':** This sheet contains a list of Theran Aegyptiaca presented in Karetsou et al. 2000. Phillips 2008 does not mention these items, therefore they had to be listed separately on the spreadsheet. The catalogue numbers of the 'Karetsou catalogue' were maintained by the current author.

- **'Thera (Warren)':** The sheet presents an Egyptian vase from Thera, discussed in Warren 2006. This item is listed separately, owing to its value for the Aegean – Egyptian synchronisms.

- **'Rhodes (Cline)':** Only two examples of Aegyptiaca are listed from Rhodes – and these are presented as in Cline 1994. The author has maintained Cline's catalogue numbers and provides further references.

- **'Egypt (Kemp & Merrillees)':** This list mentions a number of Aegean and Aegeanising items and iconographic elements from Egyptian sites. The vast majority of the information derives from Kemp and Merrillees 1980, and the items are presented exactly as they were presented in this publication: with their individual excavation number or their museum number or other individual titles.
(e.g. dolphin vase'). Some 'fresher' references with 'updated' views are also provided, along with the sources of pictures.

- **Egypt (other)**: This list discusses nine Aegean and Aegeanising items and iconographic elements from Egyptian sites. The information derives from various publications, excluding Kemp and Merrillees 1980, as these researchers have not discussed these particular items in their publication. For convenience, and to differentiate them from items from other publications on this spreadsheet, the author has given these entries an individual number (M+number). These nine items – contrarily to all other items presented in this spreadsheet - were the only items that received an individual number by the author of this thesis.

- **Texts**: This list includes a number of Egyptian and Aegean texts enlightening the nature of Aegean - Egyptian relations. Only the date and translation of these texts is provided, as the author does not aim at their linguistic and semantic analysis. However, further references are provided should the reader wish to study the texts in depth and in the original.

**Appendix of chapter 5**

- **Avaris frescoes**: This searchable catalogue is a 'bite-size' overview of the Aegean frescoes at Tell el-Dab'a, based on previously-published material that has examined these wall-paintings (e.g. Bietak et al. 2007; Marinatos 2010b; Morgan 2010a,b, etc.). The information is divided into 5 groups, according to iconographic elements: I) scenes depicting bulls and acrobats, II) landscapes (including flora), III) fauna and hunt scenes, IV) human representations and V) emblems and patterns. References and sources of images are also provided.

**Appendix of chapter 6**

- **Aegean processional scenes – Thebes**: presentation: This catalogue, which is a
synoptic overview of the work of Wachsmann (1987), is provided for reference only. It contains a brief discussion of the items brought to the Egyptian Court by Aegean and 'quasi-Aegean' men in the Aegean processional scenes in Thebes, and investigates the depicted items' origin, occasionally comparing them with archaeological finds from the Aegean and beyond. A brief discussion of the physical characteristics and clothes of the bearers is also undertaken. Where the names of the nobles are used, the tombs are implied (e.g. 'in Rekhmire' = in the tomb of Rekhmire). The information – which is read sideways - is grouped by item type (e.g. jars or jugs), and the catalogue is fully searchable. Further references and sources of images are provided.

HOW TO USE AND SEARCH THE SPREADSHEET

Groups of evidence / material culture: The evidence is grouped into individual sheets: 8 sheets on artefacts, 1 sheet with inscriptions, 1 sheet presenting the Avaris frescoes and one sheet presenting the Aegean processional scenes. Apart from material culture, there is also 1 sheet with EM chronological links.

Sheets of artefacts: The artefacts are presented on the basis of a) where they were found (e.g. Crete or Egypt) and b) their publication in a catalogue (e.g. Phillips 2008 or Karetsou et al. 2000). Most sheets are based on one single publication (see the names and regions of the different sheets), apart from 'Egypt (other)'. The 8 sheets that list archaeological artefacts provide – on account of the individual catalogues – the following information about the items:
1) the item's identity (e.g. statuette);
2) where the item is / was stored and what museum catalogue number it has received;
3) where the item was found (wider region);
4) the exact area where the item was found (archaeological site and location);
5) the suggested date for the item;
6) major disagreements concerning the suggested date;
7) the date/s of the archaeological context in which the item was found;
8) type of context (e.g. domestic);
9) the item's suggested original provenance (e.g. Egyptian);
10) major disagreements concerning the original provenance and who has expressed these disagreements (e.g. Syrian – Lilyquist 1996: 116);
11) any distinctive artistic motifs and / or a keyword (e.g. Minoan Genius);
12) if the item is reworked and / or an antique in its archaeological context;
13) where the reader can see a good quality picture or drawing of the item, and
14) any correspondence to other major publications.

For specific items only, which are mentioned as examples in this thesis, the following information is also provided at the far end of the spreadsheet (the titles of these additional columns with data are given on a light orange background):
14) if the item was handled by the author of this thesis;
15) comparanda and iconographic parallels;
16) further references; 17) author's comments, emphasis and any additions and
18) a drawing or picture in this thesis (if applicable).

**Texts**: Texts are given in translation, for reference only. A date for the texts is also provided. A list of bibliographical sources with further information accompanies every text.

**Avaris frescoes**: these are discussed individually in the penultimate sheet. The catalogue is not complete. Rather, the sheet provides an overview of the frescoes' iconography, often mentioning selective fragments as examples. The discussion is divided into iconographic groups (e.g. taureador scenes).

**Aegean processional scenes**: Again, the final sheet presents an overview of these scenes. Physique, attire and items are briefly examined.
• **Item identification**: For convenience, the author has maintained the catalogue numbers of the items, exactly as these are presented in major publications. For example, if Phillips 2008 uses a specific catalogue number for an item (e.g. number 4, for alabastron type C, HM Λ 343 from Hagia Triadha), the same catalogue number is used by the current author throughout the thesis. The reason that this is done is simple: it is easier for the reader to access the detailed information about an item in a major catalogue, if the catalogue numbers used by the current author and the author of the major publication are the same. All authors have listed the artefacts with a current number; for instance Phillips 2008 lists 596 items, giving them a number from 1 to 596. Only Kemp and Merrillees 1980 have presented their Aegeaca with an excavation number and / or museum number, instead of giving them a current number – but these numbers are also used by the current author for convenience. The item on the sheet 'Thera (Warren)' is also identified with the excavation number as Warren 2006 is not a catalogue but a study researching Aegean – Egyptian chronological links. However, for the sheet 'Egypt (other)' the current author had to identify the items with her own current numbers (M1001 to M1009) as these came from various catalogues, and it was easier and clearer 'renumbering them' than to provide their museum catalogue number when referring to them. For the identification of the items with respect to the individual catalogue one or two initial letters of the authors or editors accompany each catalogue number. For instance 'K6' corresponds to the catalogue of Karetsou (K = Karetsou et al. 2000) and the item with the catalogue number 6, i.e. the anthropomorphic figurine from Platanos. The key for the identification of the catalogues is provided in the yellow background, on the top of this page and on the top of each individual sheet of artefacts.

• **Location and site identification: distinguishing between sheets**: Every sheet lists items from the same region (e.g. Crete), apart from 'off-island (Crete)' which lists items from various Aegean regions. The sheets 'Egypt (Kemp and Merrillees)' and 'Egypt (other)' cover the whole of Egypt. Some catalogues deal
with more than one region, therefore the data are spread into several sheets, but
the 'key' for their identification (see yellow background on top of this page) is
maintained. For instance, P4 from Crete is on 'Crete (Phillips)' whereas P584,
also from Phillips, being from Kythera, is listed on the 'off-island (Phillips)'
sheet. The thesis always specifies the site on which an item was found, thus
directing the reader to the right spreadsheet, so that confusion is avoided
between e.g. searching a 'P' item on 'Crete (Phillips)' or on 'off-island (Phillips)'.
For Phillips 2008 in particular, there is a 'trick' to distinguish if an item was
found on Crete or at a region listed as 'off-island'. Her 'off-island' items (volume
II, 2008), take a number greater than catalogue number 576, with P577 from the
'Aegina treasure' being the first item to be listed on the 'off-island' group; and
P596 from Pylos being the last artefact listed in the same group. To sum up: if
P577 or greater, the item was found off-island. If P576 or lower, the item was
found on Crete.

- Understanding the catalogues:

  **The columns with a heading on a light orange background:** all the data of
  this spreadsheet are based on the catalogues of previous researchers (see
  individual names of sheets), but anything that is in columns with a light orange
  background includes the personal contribution or view of the author and / or
  adds to the discussion of the items that are used in this thesis as examples. As
  such, all items used as examples in this dissertation (whether handled by the
  author or not) are given additional references and comparanda.

  **Brackets on the description of the items:** occasionally Phillips and other
catalogue authors provide various names to identify the objects (e.g. P5 on Crete
(Phillips') is named 'Jar ('spheroid jar')'). The author of this thesis has kept the
descriptions of items exactly as these are presented in major catalogues.

  **Brackets on dates:** these are maintained exactly as the authors of the catalogues
provide them.

**Stored at / catalogue numbers:** all Greek letters have been maintained in the museum catalogue numbers.

**Abbreviations:** Abbreviations of Museums or excavation numbers: the author has tried to use a standard list of abbreviations in the thesis or avoid abbreviations when these become confusing, but the reader is advised to look at the individual publications for the preferred abbreviations of the catalogue authors, as these are maintained on this spreadsheet. For instance, in Phillips, the museum, excavation number and bibliographical abbreviations are provided in 2008: vol. 1: 246-247 and vol. 2: concordances, e.g. HM for Herakleion Museum. Abbreviations of dates: as in Phillips 2008: vol. 2: 417 and the list of abbreviations in the thesis.

**Spelling of sites:** spelling varies for the names of foreign regions (e.g. Aghia Triada / Haghia Triadha), as different authors favour different spelling. Including multiple spellings makes the database easier to search.

**Problematic site, location and context:** when site, location and context are problematic (e.g. the site or the archaeological context is unknown) the corresponding cells provide information about the problem.

'n/a': If something is not applicable, 'n/a' is used. 'n/a' is also used instead of the cell being left blank.

**Suggested date and disagreements in date:** these often cover a wide chronological period, or vary. The views of individual authors are maintained exactly as they are in the catalogues.

**Type of context:** this is based on the description of the authors in the catalogues.
Sometimes this information is missing or unknown, and the current author states so.

Artistic motif / keyword: these cells do not provide a detailed description of the items but rather, the 'keywords' and 'individual characteristics' that would identify them and link them to similar items (e.g. Minoan Genius'). No details are given about the shape of vessels, as, because of the individuality of vessels, grouping them together might be speculative.

Hieroglyphic inscriptions / signs: these are not provided in detail in the 'artistic motif / keyword' column. Please see the relevant publications for details.

Provenance: only original provenance is given. If the item was reworked in a new environment (e.g. it is Egyptian with Minoan alterations), the column of 'antiques / reworked' and the column of suggested date specifies so. There, the item is marked as 'reworked'.

Reworked or antique: this column only specifies if the items are reworked and / or antiques, on the basis of the catalogues and the comparison of the archaeological context and the suggested date for the items.

Drawings and pictures: these direct the reader to the major publications on which the information is based, and where a good drawing or (preferably) a coloured picture can be seen. Occasionally the author provides her own pictures for the finds (column 'picture or drawing in this thesis').

Handled items: Some items have been handled by the author of this thesis, or even seen in museums. The author often adds her own views and thoughts about these items, or other items that she has not handled, but are used in this thesis as examples.
**Question-marks:** The use of question-marks signifies that the various authors are not certain about something, e.g. a region, a date or a status. For instance, when 'antique?' is used, the status of an item as an antique in its content is possible but uncertain.

- **Viewing the catalogues:** The top (header) of each sheet is 'locked' and 'frozen' so that the 'key' and column titles are permanently in view. Click on the bar with the sheet titles (on the very bottom of the spreadsheet) to navigate between the different sheets and types of evidence. The use of the zoom feature can sometimes offer a better view of the document.

- **Searching the catalogues:**

  *Searching the libre office spreadsheet: (.ods)*

  'Edit' (top bar)+select option 'Find', or cntrl+F for a quick search on a specific sheet. After 'Edit' (top bar) and the selection of option 'Find', the reader can navigate from one result to the next using 'Find', or highlight all matching cells at once using 'Find All'. By zooming out, you can see all the highlighted cells. By default, Open Office Calc searches the current sheet. To search through all sheets of the document, click Edit (top bar), Find and Replace, More Options, then select 'Search in all sheets' option. To search in selected columns or rows, highlight the column(s) in which you wish to search (e.g. by material), do 'edit', 'find and replace', select option 'find all' with your search term after making sure that box 'current selection only' (under 'more options' is ticked – all cells with the term are highlighted. All columns of the sheets are searchable but searching by date may be a problem, as long chronological periods are often covered and a dash is used (this is something that the current author may improve in the future). However, one can search by name of item, catalogue number, excavation number, museum number, context type, etc. The reader may also wish to search for specific typical characteristics of items (e.g. items labelled with the keyword lxii
'Minoan Genius' or 'seals'. When searching, please use the singular form or of words ('bird' instead of 'birds') as the key often provides the word in singular number. Notice that a dot is placed on the first 60 entries of 'Phillips (Crete)'. This is done as searching for P50 would occasionally take the reader to entry P501, P102, etc, but searching for P50. (with a dot) would provide the right entry straight away.

Searching the microsoft file (.xls)

Searching as above (.ods file). The only difference is: Search: 1) control +F. 2) options, 3) select (choose sheet or workbook). Sheet searches the sheet that is currently open, whereas workbook searches all sheets. Boxes with the search term are highlighted.

ADVANTAGES OF USING A SPREADSHEET FOR THE PRESENTATION OF THE DATA

Searchability is the most important advantage of using the spreadsheet as a platform for the data. Moreover, the data can be 'fed' into other file formats, such as databases (e.g. Open Office Base) or even published on the internet as a fully searchable file. A searchable spreadsheet also allows for fresh conclusions to be raised, e.g. the creation of charts with percentages of Aegyptiaca from Crete that were reworked.

DISADVANTAGES OF USING A SPREADSHEET FOR THE PRESENTATION OF THE DATA

The main disadvantage of using Open Office Calc or any similar program (including Microsoft Excel) is the fact that images of artefacts are not displayed on the database. It
is possible to paste an image on a sheet, but images cannot be 'locked' or 'wrapped' in a cell. They 'anchor' all over the sheet surface, therefore it is difficult linking them with particular items in specific rows and cells. The attempt to use hyperlinks to particular images on the spreadsheet, or another file, was also not fruitful, as the hyper-links linked to the whole sheet or file, and not to individual images. Moreover, if the files were copied (e.g. from the author's laptop to a CD), the hyperlinks would not function. Placing images in comment boxes was also not an option as it reduces their quality and size. The problem was solved by simply referencing the publications where the reader can go and see a good quality image of an artefact.

FUTURE PROSPECTS

The author estimates that the database contains 80% of the catalogue of Phillips (2008), but only selective artefacts from other catalogues are included (for the criteria of selection see the introduction of the thesis and 'chapter 4 'Material culture: selection criteria'). The author has plans to improve the searchability function and complete the database of Phillips 2008 (i.e. include all artefacts in volume 2 which is the most recent catalogue of Aegyptiaca) and possibly share it with her colleagues in the future, after discussing the matter and any copyright issues with Phillips. The artefacts from other catalogues (from Karetso et al. 2000, Cline 1994 etc.) are offered as examples, because they are discussed in the thesis. In general, the Aegean is better represented than Egypt, as far as the artefacts are concerned, but imputing the data of entire catalogues was not possible, as this was done manually, artefact by artefact, and is very time consuming. The texts are only a basic list of written sources; yet they assist the reader who is not familiar with (or is not interested in linguistics) to understand the nature of Aegean – Egyptian interactions. The sheets of the 'Avaris frescoes' and 'Aegean processional scenes – Thebes' offer a bite-size searchable database of other publications that might be appropriate for a reader who is interested in an overview, but does not wish to expand his/her knowledge on the subject.
PROGRAM SPECIFICATIONS

This spreadsheet was created with 'Open Office Calc' and is copyrighted. No copying or distribution is allowed without the author's written permission. As an open office document, it can be read by most operating systems. The author can provide alternative software formats of this database upon request.
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GENERAL TERMINOLOGY

Aegeaca: <Latin> Aegeaca are items discovered in Egypt but of Aegean origin, i.e. made by Aegeans but not necessarily made in the Aegean (they can be made outside the Aegean). See also Minoica.

Aegeanising: Archaeological finds discovered in Egypt, produced by Egyptians, but bearing Aegean artistic influences and some Aegean features. These can be compared to typical Aegean comparanda. The introduction of this thesis defines this term in greater detail.

Aegyptiaca: <Latin> The term Aegyptiaca stands for finds of purely Egyptian origin, made in Egypt but discovered on Crete or the Aegean. An Aegyptiacum, however, can be made by an Egyptian, in the typical Egyptian way, but outside Egypt.

Anathema: <Greek> The term anathema (ανάθημα; pl: αναθήματα = what is lifted up) originally identifies any item 'lifted up' and offered (dedicated) to the gods.

Antique artefacts (or heirlooms): The term may refer to a product / object made typically in earlier times and valued for its age. This is why some antiques are
collectable. However, the term can also refer to an object which is out of fashion. In this research, the term antique refers to artefacts that are dated to an older date compared to the date of their archaeological context. This research and the catalogue of finds (see chapter Four and its appendices) indicate that these items, when prestige, can acquire special value due to their age; otherwise they are treated as old-fashioned, and therefore, modified according to the latest local standards. It is likely – but not certain – that antiques were modified in periods of recession. See also term modified exotica.

**Archipelago:** < Greek > From the Greek Αρχιπέλαγος. In this thesis the term applies to the Aegean Islands.

**Artefacts of foreign inspiration:** items / archaeological finds which have received various levels of foreign inspiration. These items, contra Egyptianising, Minoanising / Aegeanising, do not demonstrate clearly Egyptian or Minoan / Aegean features, but their ideology and symbolism is somehow connected to these regions. For example, item 'A' can demonstrate a practice, usage, symbolism and cultural background which strongly or loosely recalls a similar practice, usage, symbolism and cultural background to item 'B', when item 'B' is normally situated outside the geographical and spacial limits of item 'A'. This is due to networking and the world systems approach.

**Assimilation:** An ethnic minority is 'assimilated' when it becomes indistinguishable in society, having fully understood and accepted the dominant, host culture; and having adopted all cultural norms of that culture.
**Autarky**: < Ancient Greek > Αυτάρκεια. The quality of being self-sufficient.

**Barter economy**: An economy in which exchange of goods does not involve money. Aegean and Egyptian Bronze Age economies of the mid Second Millennium BC were barter.

**Brotherhood**: Otherwise mentioned as 'brothership' in modern scholar works. The word signifies alliances / diplomatic agreements between the rulers of Egypt and the Near East. Brotherhoods are often mentioned in the Amarna Letters, where the rulers refer to one another as 'my brother', 'my son' (see Cline 1995a and Moran 1992 for examples). Brotherhoods were cemented with political marriages, exchange of favours and official visits, and generous gift exchange. See **gift-exchange**.

**Buon fresco**: < Italian > a fresco painting technique in which pigments are applied to plaster when it is still wet.

**Capital**: < Latin > from caput - (gen.) capitis = head. An economic term usually describing wealth in the form of money or property owned by an individual, business or institution. Nonetheless, Bronze Age economy excludes money as it was barter; therefore, concerning this period of time, the term 'capital' should describe wealth in various goods, luxury items, raw materials and property, and it is often associated with tax. To disassociate the modern notion of capital from the modus operandi of Bronze
Age economy, the terms 'wealth' and 'wealth accumulation' are preferred in this thesis. Wealth accumulation is the main responsibility, aim and objective of the Minoan and Egyptian palaces and administration (i.e. the Minoan and Egyptian 'state'). Capital (or in the case of the Bronze Age, wealth) implies the existence of an elite class, labour, private property, etc. and when wealth becomes surplus it encourages trade. Therefore, the notions of capital and wealth imply the existence of social stratification, as they 'circulate' between social classes, in the form of tax, gifts, booty, etc. (Frank 1993: 388-389). Cores extend their power over semi-peripheries and peripheries in order to cover the demand for raw materials and wealth. In effect, Bronze Age wealth accumulation is cyclical, repetitive and centralised (Frank and Gills 2000: 11-13). Wealth accumulation in the Bronze Age was the motive force of world system history. Even so, both Amin (1991, 1993) and Wallerstein (1991, 1993) suggest that politics and ideology were in command, not the accumulation of wealth. See also terms trade, private accumulation, public accumulation, elite, entrepreneurship, monetisation, capitalism, protocapitalism, private accumulation, public accumulation, surplus.

**Capitalism**: An economic system based on private ownership of capital.

**Cliodynamics**: a new, multidisciplinary research field examining the mathematical (re)modelling of history (Turchin 2008).

**Colonialism**: < Latin > from *colere* = to inhabit, cultivate, practice, respect'. In this thesis, colonialism defines the settlement of a relatively large group of individuals in a
foreign land. The term also refers to settler colonies and trade posts abroad, but colonialism implies that the colonists play an active role in the politics of both the motherland (the 'metropole' / \(\mu\eta\tau\rho\omicron\omicron\pi\omicron\lambda\omicron\varsigma\)) and the region in which they are established. Reasons for colonialism are the following: a) the expansion of the power of the metropolis, b) the expansion of the profits of the metropolis, the expansion of the cult / culture of the metropolis. The term colonialism also signifies the expansion of colonies, i.e. it bears a strong relationship with the term 'imperialism'. See also terms colonisation, diaspora, gateway, imperialism.

**Colonisation**: < Latin > from *colere* = to inhabit, cultivate, practice, respect'. The en-mass (i.e. in large numbers of individuals) establishment of a culture / population in foreign lands. In this thesis, the term refers to settler colonies and trade posts. The establishment of a limited number of individuals in a foreign land does not signify the establishment of a colony abroad. See also terms colonialism, diaspora, gateway.

**Command or mobilisation economy**: This type of economy is set into action during a crisis or conflict (Hicks 1969: 14). Command economy dictates the gathering of surplus (products, labour, tax, etc.) to be later redirected for a specific purpose. Hence, under this economic scheme, a group of people (or a person of prestige, e.g. the Egyptian palaces in the New Kingdom) divert most production, organisation and allocation towards the achievement of a goal, this goal being warfare and military action (Carney 1973: 79-84).
Comparandum: <Latin> (pl. comparanda) = an object or assemblage of items bearing similar artistic - or other - characteristics to another particular object or assemblage, with the two parts coming from a different environment (the term is often mentioned in Phillips 2008, instead of 'parallel'). In iconography, the term preferred in this thesis is 'iconographic parallel'. Comparandum is the item or assemblage to be compared, whereas comparatum is the object or assemblage to which the comparison is made.

Conflict theory: The object of sociological research that focuses on the competing interests (political, diplomatic, economic, material, warfare) in human societies (Schelling 1960).

Crafts-worker: a) creator of great skill in the manual arts, b) a professional whose work is consistently of high quality and his / her products of art and skills are on demand by others c) a skilled worker who practices some trade or handicraft.

Cultic: an object, image or phenomenon associated with worship, rituals and ceremonies.

Cyclades: Amorgos, Anafe, Andros, Antiparos, Delos, Eschate, Ios, Kea, Kimolos, Kythnos, Mylos, Mykonos, Naxos, Paros, Folegandros, Serifos, Sifnos, Sikinos, Syros, Tenos, and Thera or Santorini. The Cyclades are the cradle of the so-called Cycladic Civilisation, spanning the period from approximately 3000 BC-2000 BC.
**Daemon or Demon**: < Ancient Greek / Latin > In archaeology and Philosophy, Daemon or Demon refers to a subordinate of the higher gods. See also **Genius**.

**Decision theory**: This theory is applied in several sciences such as economics, mathematics and statistics, and even psychology, philosophy and politics. The object of this theory is the identification of the value and rationality of a given decision, so that the best decision is taken for the optimum result. Decision theory is associated with game theory, because rival players, when interacting with one another, must take rational decisions for the most favourable outcome of the game. As such, the exact nature of a player's decision affects not only all other players in a game but also the game's payoff (Montet and Serra 2003: 78; Holt 2006: 335, 351) (see also term **rationality and learning process in games**).

**Diaspora**: < Greek > from διασπορά. Diasporas (or diasporae / 'διασποραί') are gateways which are linked to a particular trading location, and therefore, a trade authority should be better called a trading diaspora (Curtin 1984: 2-12; Stein 1999: 47). Nevertheless, a gateway that maintains a political alliance and continues to found new trading centres for external reasons may be developed into a diaspora. Hafford notices that these new trading centres can become separate cultural entities but maintain some sort of link with the motherland, e.g. via intermarriages (Hafford 2001: 60). What creates both gateways and diasporas is the market itself, along with the process of accumulation of goods and wealth (Hafford 2001: 39).
**Diplomacy**: < (Ancient) Greek > from διπλοματία. Management of public affairs; negotiation between nations and political leaders and the skill of handling affairs without arousing hostility in periods of war and peace. The etymological root of the word < διπλούς > provides the term < diplomat > (διπλομάτης), which bears the dual (διπλούς) grammatical number, since a diplomat negotiates between two regions, or, they are effectively 'double-faced'. Diplomacy can be bilateral (i.e. it involves only two parties) or multilateral (it involves more than two parties). It can be formal ('official') or informal ('unofficial'). Public diplomacy is a form of informal diplomacy applied by a certain government to the public of a foreign region.

**Disturbed archaeological deposit**: A context of an archaeological find that has been disturbed by subsequent human activity or natural phenomena, like an earthquake, flood, or even animals.

**Egyptianising**: Egyptianising are artefacts, discovered on Crete or the Aegean but made locally; yet, have received artistic influence from Ancient Egypt (i.e. some Egyptian features), and they can sometimes be connected to typical Egyptian comparanda. Some of these items imitate Egyptian prototypes. The introduction of this thesis defines this term in greater detail.

**Egyptomania**: < Greek > from Ἁγιότης + μανία / Αιγυπτιομανία (Egypt + mania) = the fascination with Egypt in general concept that describes the 'Western' fascination with ancient Egyptian culture and history. The term usually describes the modern Western
fascination with anything ancient Egyptian. However, in this thesis, the meaning of the
term is received etymologically.

Elite: < Latin> from the Latin verb 'eligere' = to elect. The elite is a small group of
people who enjoy superior intellectual, social or economic status. The so-named power
elite, in politics and sociology, control a disproportionate amount of wealth, privilege,
and access to decision-making. The elite status (similar to wealth) is primarily
hereditary (e.g. Ancient Egypt) and, secondarily, determined by the proximity to the
government and the head of state.

Emporium: < Latin / Greek> pl. emporia. A trading settlement or place in which
merchandise is collected or traded.

Entrepreneurship: The act of being an 'entrepreneur', i.e. one who undertakes an
endeavour, particularly in business. See also traders ('freelance' traders were
entrepreneurs).

Equilibrium (=Nash equilibrium): The term refers to both the set of strategies and the
outcome of a game. From the view-point of strategies, an easy-to-follow definition of an
equilibrium is the following: 'An equilibrium, (or Nash equilibrium, named after John
Nash) is a set of strategies, one for each player, such that no player has incentive to
unilaterally change her action. Players are in equilibrium if a change in strategies by
any one of them would lead that player to earn less than if she remained with her
current strategy. For games in which players randomize (mixed strategies), the expected or average payoff must be at least as large as that obtainable by any other strategy.' (Shor 2005 - web accessed) (for John Nash, see term history of game theory).

Moreover, in an equilibrium, players cannot, or do not benefit by changing their own strategy while the other agents of the game keep their strategy unchanged. Thus, an equilibrium is an outcome in which strategies adopted by the players are mutually self-supporting (Montet and Serra 2003: 22, 65).

From the viewpoint of a game's payoff (non-co-operative games), an outcome is an equilibrium only if each player anticipates correctly the rational behaviour (set of strategies) of all other agents participating in this game. As such, the formation of an equilibrium implies the use of rational thinking, acting and strategic behaviour on behalf of the players (Montet and Serra 2003: 6, 22, 65, 76). A game usually has several equilibria and not just one (Montet and Serra 2003: 65, 76). In non-co-operative games a Nash equilibrium always yields an outcome (a payoff) for each player (at least to a minimum) which reaches their expectations (Montet and Serra 2003: 66). All games demonstrate at least one equilibrium since all games have an outcome.

**Evolutionary game theory:** The theory according to which players create sub-populations of similar agents in coalitions while they eliminate other players which are less successful through a process of mutation and selection (Maynard Smith 1982; Holt 2006: 338) (see term game). As a result, players in coalitions, who eliminate other players which are less successful, become progressively more numerous, and eventually
more powerful. The theory was originally created with mathematics and biology in mind (Montet and Serra 2003: 77).

**Exotica**: < Ancient Greek, Latin > Exotic goods from afar, including luxury and prestige items. These goods receive special 'value' as they come from an extraordinary place which one's imagination can exalt into a 'paradise on earth', since this place it is out of the ordinary. Exotica are circulated and imported by traders (particularly in the end of the Middle and Late Bronze Age) or they can be 'souvenirs' or 'inter-elite gifts, exchangeable under the scheme of reciprocity. They can be imported by a traveller or someone who offered his services abroad and later returned to his country. These goods, and especially the prestige and luxury exotica, sustain a social, cultural, semi-religious or magic character. Even so it is not clear whether the function, functionality, importance and socio-religious aspects of these items were bequeathed to foreign lands together with these items (see e.g. Petrovic 2003: 135-140). Exotica are of fundamental importance for archaeology as they portray the picture of interconnections and chronological inter-links to a world-systemic level. See also terms *imitations of foreign artefacts, replicas of foreign artefacts, antiques, artefacts of foreign inspiration, locally produced but of foreign material artefacts* and *modified exotica*.

**Flying gallop**: Flying gallop is an artistic technique to suggest rapid motion of four-legged creatures. For the Flying Gallop see Hood 1978: 235, with examples.

**Game**: A game is defined by its players, the players' strategies and its final outcome/s.
In principle, a game is the series of interactions among players who take rational decisions. In a game, the decisions of some players impact the final outcome of the game and the individual payoffs of (other) players. Moreover, the representation of a game specifies which player's turn it is to act, their knowledge, understanding and experience in rational decision-making, the possible options players have, and the exact outcome of their acts (Montet and Serra 2003: 14; Holt 2006: 310-312). As such, a game can be a situation of conflict and/or co-operation among intelligent individuals or groups of people with common competing interests. However, the object of a game is much more complex than simply beating the opponent/s. A zero-sum game is a game where one player's profit / win is someone else's loss (Montet and Serra 2003: 1, 76; Holt 2006: 6-8; Weirich 1998: 48-50).

By definition, every game has at least one solution, i.e. an outcome or a payoff; and every game demonstrates an equilibrium (Weirich 1998: 4) (see term equilibrium). A game can be played with complete or incomplete understanding of the information and rules involved, on the basis of how much the players know, or are allowed to know about the rules of the game and their rivals. A game is sequential when the moves and actions of players demonstrate order over time, i.e. one decision and action is taken after the other (Montet and Serra 2003: 5).

Games are divided into non-co-operative and co-operative. In truth, there is a very thin line between co-operative and non-co-operative games. For instance, even in non-co-operative games, players can contact each other and deliberate over a particular
outcome of the game (Montet and Serra 2003: 63). The term 'non-co-operative game' signifies that players act on the basis of their perceived self interest. In co-operative games, players are bound with commitments (Montet and Serra 2003: 2-3). Thus, co-operative games imply the coalition of players; and the exact members and rules of this coalition need to be well defined (that is why co-operative games are also called coalition form games). The nature of this coalition and the outcome of the game depend on how fair members are treated (for instance, are they treated as equals or not?) (Montet and Serra 2003: 3). Coalitions are formed on the basis of what the player knows about a rival (Montet and Serra 2003: 22). The establishment of a coalition denotes that apart from the payoff of the game there are 'side-payments' for the individual members in this coalition (Montet and Serra 2003: 24). Bargaining and negotiations are tools for co-operation / coalition between players. In a coalition, there is, or there is not mutual agreement between members (see also term rationality and learning process in games). Coalitions are based on trust that the player(s) will stick to an agreement; therefore, such an agreement generally corresponds to a Nash Equilibrium in the game (Montet and Serra 2003: 74) (see also term equilibrium). However, in real-life situations, such agreements are not biding, as players can choose their strategy/ies secretly; and so, any deals and coalitions can often break up. Therefore, even when coalitions operate, the game essentially remains non-co-operative (Montet and Serra 2003: 74).

**Game theory:** Game theory is the analysis of interactions of players who think and act rationally (see terms player, game). Due to its rational basis, game theory is associated
with decision theory (see terms **decision theory** and **rationality and learning process in games**) (Montet and Serra 2003: 5; Holt 2006: 5-8). Via rational decision making players reduce their strategic uncertainty about the payoff (i.e. the outcome) of their actions (Montet and Serra 2003: 6). The term nowadays covers all real-life situations and describes the methodology according to which rational people and/or groups of people interact with each other (Montet and Serra 2003: 1, 76; Weirich 1998: 48-50).

Game theory is frequently applied into politics and economics, including diplomacy and the market, although, originally, it was developed as a mathematical phenomenon (Montet and Serra 2003: 12) (see term **history of game theory**).

The study of conflict or co-operation between countries can be well defined within the game theory, the concept of Nash Equilibrium (see term **equilibrium**) and other related theories. In fact, these theorems can be used in order to explain social phenomena such as domestic politics, migrations and international banking and the market. Non-cooperative games, in particular assist in the examination of numerous international situations where relations between countries and peoples are in a state of rivalry or not smooth; for instance in warfare and conflict, and of course, diplomatic negotiations (see e.g. Allan and Schmidt 1994).

**Gateway:** Gateways are domains that act as agents between cores and peripheries. In core - periphery interactions getaway communities become fundamental to cross-cultural trade and exchange. Gateways may be controlled and governed by the areas they serve and are usually multicultural. Hafford explains that the middlemen, i.e. the
trade specialists of the gateways, have -in theory- no real political affiliation. A gateway welcomes foreigners from various regions and specific people from these gateways can travel to foreign lands without great political difficulties (Hafford 2001: 59). A gateway is generally considered as a neutral territory, even if it is controlled by its neighbouring areas (Hafford 2001: 58-59). Curtin describes gateways as follows: 'The port of trade was a town or small state, not necessarily on the seacoast. It was recognised as a neutral spot in the struggles of larger states and kept that way internationally. Long-distance trade, moreover, was closely controlled by the [port of trade] state and subordinated to state ends' (Curtin 1984: 13-14). Gateways can function as harbours for free market trade, but not always. Free trade in gateway communities never existed absolutely. All gateways require some form of authority and trade legislation. Therefore, in practice, their neutrality is iconic. Gateways promote inter-regional exchange and therefore become targets of political control by nation-states governors. Therefore these gateways were essential to the world economy (Hafford 2001: 37). See also diaspora.

Gift exchange or 'greeting gifts': (and the elite tendency to collect high-value goods from abroad): The Eastern Mediterranean Bronze Age elites, which are usually connected to an institution such as palaces, habitually collect and consume luxury goods and raw materials from afar; yet need to turn to their nearby regions reciprocally in order to obtain these goods (Hafford 2001: 57). Frank & Gills describes the phenomenon as follows: '...the high value “luxury” trade is essentially an interelite exchange. These commodities, besides serving elite consumption, or accumulation, are typically also stores of value. They embody aspects of social relations of production,
which reproduce the division of labor, the class structure, and the mode of accumulation' (Frank & Gills 1993: 93-94). Helms adds that luxurious goods from afar, whether gifts or commodities via trade, had received special significance, as they had come from an area of the world which was situated outside the limits of one's village or county (Helms 1993). Voutsaki also suggested that the consumption of local luxurious goods by the elite, nurtures social ranking, and that the legitimisation of one's social power (for example, the legitimisation of the status of the king or a local chief) is (and was) based on the consumption of the exotica (Voutsaki 1995: 13). In fact, according to Helms, there is a mythical equation behind luxurious exotica. The act of exchanging exotica, the production of them, even the people who are involved in this production or trade (the producer, the middleman, the consumer) receive power from this mythical equation, which is linked to the 'unknown' and sometimes 'legendary' outlands (Helms 1993: 9). Therefore, the elite requirement for exotica can easily become a trend, and this trend can accelerate long-distance trade and exchange, along with the diplomatic act to go with it.

**Genius**: < Latin > In Archaeology, Genius is a supernatural, mythical, magical creature / spirit, with a sympathetic persona. In Philosophy, the term signifies a divine nature. A Genius can be good or evil. It is deified. The Arabic folklore term جَنْ (jinn) can perfectly describe the character of the Ancient 'Genius'. This thesis discusses the transformation of the Egyptian standing hippopotamus image to the so-called Minoan Genius (see e.g. Weingarten 2013).
Gravidenflasche <German> A Gravidenflasche is a type of Egyptian vessel, extensively studied by Brunner-Traut (1970). These vessels first appeared in the eighteenth dynasty, became popular in the reign of Thutmosis III and went out of fashion after the reign of Amenhotep III (Bourriau 1982: 101). Phillips (2008) and Budin (2010; 2011) have re-examined the influences of Gravidenflaschen on Aegean art.

In Egypt, Gravidenflaschen are about 10-20 cm tall, made from travertine, clay, ivory, or sometimes alabaster. They are shaped in the form of a naked woman with a protruding belly, pendulous breasts and arms pulled to the stomach, or holding a musical instrument (a number of examples are given in Brunner-Traut 1970). There are two varieties of Gravidenflaschen in Egypt: i) the standing, pregnant form, and ii) the image of a woman giving birth, with knees pulled to the torso (Brunner-Traut 1970: passim). The Gravidenflaschen contained pharmacetics (most likely ointments or oils) to be used by pregnant women, possibly to prevent stretch marks (Janssen and Janssen 1990: 3). The Muttermilch-krüglein was an Egyptian clay vessel in the form of a woman holding a child (a 'kourotrophos'). It usually contained milk products, and it is often discussed together with the Gravidenflasche (Brunner-Traut 1970; Spieser 2004: 56).

Hellenorientalia: The term Hellenorientalia signifies Oriental finds discovered in what now constitutes modern Greece.
**Historic recurrence**: the eternally cyclical repetition of similar historical events in world history. For the topic see the major work of Graham 1997.

**History of game theory**: Modern game theory was introduced by John von Neumann and Oscar Morgenstern in 1944, and in 1950/51, John Nash became the 'Father' of strategic non-co-operative game theory with his famous 'Nash Equilibrium' (see term equilibrium). These concepts were conceived as mathematical theorems, although nowadays, game theory is applied in many fields, including economics, politics and social science. As such, it can be associated with conflict theory and indirectly, with the world systems approach. Game theory has been applied into political science and economics since 1944 (von Neumann and Morgenstern 1944). Moreover, it is frequently used in international relations. The theorems of Nash were applied in politics well before they were applied in economics.

**Horror vacui**: < Latin > In iconographic studies and art, horror vacui (literally: fear of empty spaces) is the filling of the entire surface of an artwork with detail.

**Hotelling's model of spatial competition**: the model according to which players stay as close together as possible, form coalitions and remain in contact so that they monitor aggressive competition. For instance, Hotelling's model of spatial competition explains why many restaurants open in clusters on the same road: their owners try to be on good terms – or, at least in regular contact – with each other while at the same time they spy on the competitors' offers and prices in order to act accordingly (Hotteling 1929).
**Imitations of foreign items:** These are copies of foreign items, copied or derived from an original. Usually, one can easily distinguish them from the original, contrarily to replicas (see replicas of foreign items).

**Imperialism:** <Latin> from the Latin verb: imperare = to command. Imperialism is the practice of extending a country's power, influence and profits through diplomatic / political measures, economic / mercantile measures and / or military force. See also terms: colonisation, colonialism, trade.

**Innovation:** Introducing an object as if it were new. The introduction of something new, in customs, rites, etc. The introduction of a foreign object to a culture. Innovation is also the act of improving an existing idea or product.

**Integration:** An ethnic minority is 'integrated' within the dominant host society, when it adds to the existing culture of the host society, by actively transforming and enhancing it.

**Intonaco:** <Latin, Italian> a final, very thin layer of plaster on which pigments are applied. This usually covers any sinopie. See entry for sinopie further down.

**Kantharos:** a drinking cup with high swung handles.
Koine: < Ancient Greek > from κοινή. The cultural / artistic / stylistic characteristics, sometimes common, to different geographic regions during a particular chronological period.

Levant: the Levant. The Eastern Mediterranean at large. Its bounders are: to the north, the Taurus, to the south, the Arabian Desert, to the west, the Mediterranean Sea; to the east, extending towards the Zagros Mountains.

Locally produced, made of foreign material artefacts: items locally produced but made of foreign raw materials (e.g. a Minoan seal made of a semi-precious stone which is not indigenous to Crete and so, this raw material - and occasionally, its technology- have been imported from Egypt or elsewhere). The only exotic feature of these items is the raw material itself, or even its technology, but overall these items appear entirely local. The major question in this category of finds is whether the cultural qualities of the raw material and of its technology are transferred from one locale to another. For example, let us assume that a seal or pendant, of typical Minoan appearance, is made of Egyptian faïence (when, in Egypt, faïence = Nile and the Waters of Heaven, and when blue = fertility and afterlife). Will the raw material and its technology maintain some of its Egyptian qualities outside of Egypt? In other words, will the Minoans link the raw material, and the item itself, with water and fertility practices?

Luxury goods: Goods that are of high value and not 'necessity' or 'inferior' goods. In antiquity, due to the differences between social classes, the consumption of luxury was
limited to high society. Therefore, the definition of luxury was fairly clear: Whatever the poor cannot have and the elite can, was (and is) identified as luxury. A mass luxury product is a product that targets the middle class. Upmarket goods are status symbols; they display the wealth and income of their owners (i.e. conspicuous consumption). The Sherrats (1991: 354-355) notice that luxury products and their consumption have both practical and social aspects. Luxury material goods are an essential part of culture and 'civilisation' as they are connected to symbolism and ritual. For example, a perfume is not just a cosmetic but also a carrier of purity, beauty and fertility.

Kristiansen has observed that during Bronze Age and Early Iron Age: a) rank was mostly ritualised, b) the production, destruction and the deposition of prestige goods (e.g. items of bronze and gold) were used in social strategies. c) however, production, destruction and deposition of prestige goods was subject to repetitive changes in space and time (Kristiansen 1998: 54). Kristiansen also explained how ritual, strongly connected to the prestige items, legitimised new positions of rank and how ritual sacredness could be implied by the elite in order to create centre-periphery relations (Kristiansen 1998: 55).

**Magazine:** From the Arabic words "Makh-hazin" (مخزن) meaning 'warehouse', 'storehouse'. A term frequently used by the members of the Austrian mission (e.g. Bietak et al. 2007) for the Tell el-Dab'a storehouses.
Market: The act of 'marketing and trading' and a place where 'marketing and trade' take place. Together with technological innovation, urbanisation and stratification due to accumulation of profit, came the creation of the market in which more specialised trade for profit was fundamental (Hafford 2001: 45-47). The exact chronological era in which these changes took place is still under debate. Childe, for example, links the creation of the market with the so-called Urban Revolution in Mesopotamia, around 3000 BC (Childe 1965: 36). Bleiberg believed that there was a time, before the schemes of capitalism and the market were introduced, when society was primary and the economy served society, rather than vice versa (Bleiberg 1996: 8). Polanyi (1957) initially denied the concept of the 'market' in antiquity. Later, however, he attempted to link the concept of ancient market with the marketplace (On the market theory see the relevant discussion in Warburton 2003: 64-67, 146-148). Warburton argues that there were markets in the Bronze Age Eastern Mediterranean during the years 3000 to 1200 BC; and that these markets affected both production and distribution of commodities, with the state institutions playing the most active role in the market process (Warburton 2003: 49-67). According to Warburton, markets played a key role in the production and distribution of commodities from a very early date onwards, with the states themselves controlling the market process (Warburton 2000: 66; 2003: 116). However, Warburton also sees freelance traders (2003: 77-78). See also term elite, since the elite is connected to the market.

Market economy: This type of economy is associated with modern modes of production, such as 'capitalism' (see term capitalism) (Hafford 2001: 28). Market
economy can be seen as an internal - local or international phenomenon, i.e. it is a cross-cultural practice (Hafford 2001: 28). This type of economy is motivated by profit and the accumulation of wealth through profit. Trade in a market economy is entirely fundamental with commodities being specifically produced for trade and exchange (Hicks 1969: 25). A market is dependent on the division of labour and the set of a value (price) for everything. The value of 'products' is constantly fluid, as it is modified according to supply and demand and international market competition (Hafford 2001: 29). North argues that 'all societies have elements of reciprocity, redistribution, and markets in them' (North 1977: 709). See also market.

**Mass luxury**: luxury specifically targeting the middle class, or what is sometimes termed as aspiring class. Mass luxury can explain the reproductions, replicas and imitations of luxury items and exotica.

**Mercantilism**: An economic movement which defines the profit-making international trade within the game-theoretical framework (Correa 2001: 198).

**Middleman / intermediary**: Intermediary is the negotiator who acts as a link between parties in aspects of trade and exchange, diplomacy, politics, etc.. In economic terms, however, the middleman is a third party that offers intermediation services between two (or more) trading partners. It is interesting how Lachmann describes the middleman: 'A market is a complex of relationships between consumers and producers, buyers and sellers, borrowers and lenders, etc. The relationship between the two market parties
may be one of close proximity, so that they can negotiate directly (the author's emphasis) as in a country fair... Or the two parties may live at a distance (which need not of course be a spatial distance). Then an intermediary, a middleman, is needed to bring them together. Where distance is spatial, the itinerant hawker is an obvious example' (Lachmann 1986: 6). Additionally, as expressed by Hafford, middlemen are the link between cores and peripheries (Hafford 2001: 51). As Hafford states 'Within a redistributed system, profit seeking traders must generally operate at a distance between core and periphery or between societies within the core, and thus, market activity occurs primarily over these boundaries'). Hafford adds that a middleman is a trade specialist who functions as a liaison between two parties that wish to exchange goods, sometimes without the knowledge of who buys and who sells, who gives and who receives. The middleman may receive some profit from the exchange process, therefore the exchange becomes trade and the middleman becomes trader (Hafford 2001: 49). That is why, according to Heichelheim, some traders and intermediaries turn into nobles who collect taxes, etc. (Heichelheim 1958: 56).

**Minoica:** < Greek > artefacts / finds discovered in Egypt but of Minoan origin, i.e. made by Minoans but not necessarily made on Crete.

**Minoanising:** Archaeological finds discovered in Egypt, produced by Egyptians, but bearing Minoan artistic influences from Minoan prototypes and demonstrating some Minoan features.
**Mixed economy**: Term used when more than one economic type operates simultaneously (introduced by Mauss in 1966).

**Modified exotica**: Modified exotica are the original exotica that arrive at a place outside of their natural environment, to be modified later according to local aesthetics. For example, an Egyptian vessel is imported to Crete, where the locals may modify it by adding typically Minoan features, such as a handle or a hole, so it can be used as a rhyton. It is not known why this happens. Suggestions include the following: a) the item receives a new function and symbolism in its new environment, and thus, is altered to serve a new purpose; b) the item is considered old fashioned or not aesthetically beautiful, and so, it is altered according to indigenous standards, for personal use or further circulation; c) the exoticum is no longer welcome as it has lost its value due to any number of reasons, and so, it is altered to upgrade its value, d) alteration for innovation, i.e. the creation of something new out of something old / foreign. See term 'innovation' above.

**Monetisation**: Establishing something (e.g. gold or silver) as the legal tender of a country / locale.

**Multiculturalism**: The co-existence of several different cultures in a single country.

**Network Theory**: Although related to computer science, two aspects of this theory (Social Network Analysis and Actor-Network Theory) have been used in sociology.
Social Network Analysis examines how relations are structured among social entities (Wasserman and Faust 1994) and Actor-Network Theory (ANT) examines human and non-human relationships after comparing objects with other objects, and concepts with other concepts (semiotics) (Latour 2005). Actor-Network Theory was used by Knappett (2011) for the study of archaeological finds, with some examples from the Aegean Bronze Age. Essentially, Knappett (2011) has shown how comparing archaeological finds (e.g. pottery to pottery), concepts (e.g. funerary rituals) and even humans (e.g. artist to artist) can assist in the study of social relations.

**Networking:** A network is an interconnected system of things or people; therefore, in archaeology and anthropology, networking is the act of transition of culture in world systemic zones. Culture may include transportation of people, items, ideas, etc.

**Orientalia:** < Latin > The term Orientalia equals Oriental finds (from Syria, Palestine, Cyprus, the Hittites, the Mitanni, etc).

**Parturient:** the image of a woman in labour, or about to give birth: with raised, bending knees touching the torso, protruded belly, pendulous breasts, and hands placed on the knees. The image appears in different media on Crete (from the Middle Minoan to the Subminoan), e.g. statuettes and pendants. It also appears on Cyprus (Budin 2010: 20-22; Bolger 1994: 15). The stylistic details of this image on Crete (e.g. the Protopalatial female protome from Phaestos [P452]) are likely to be correlated to the Egyptian Gravidenflasche (the non-standing form). Yet, the parturient image appears on Crete
before the Egyptian **Gravidenflasche**; therefore, the Minoan image is said to have inspired the creation of **Gravidenflaschen** in Egypt (Phillips 2008; Budin 2010; 2011).

**Pharaoh**: <Hellenised Ancient Egyptian from pr-³³³> The Egyptian religious and political leader. The term means 'Great House' and originally referred to the king's palace. The title is used regularly, in particular during the New Kingdom; after the mid Eighteenth dynasty. The Egyptian term for the ruler himself was *nsw* or *nsw(t)-bit(i)*. Nonetheless, in modern scholarship, the term 'Pharaoh' is used for all the periods of Egyptian history.

**Player**: In game theory, a player (or agent – as players are frequently called in this work) is any rational individual or group of individuals who participates in a game with a set of strategies. Players are able to select among the strategies on the basis of the games' outcomes (Holt 2006: 5-6) (see term **strategic form games**).

**Private accumulation**: Private accumulation arises naturally, even in the most egalitarian societies, when an individual gains status higher than others since this person (or group of people) has invented some way to acquire and manage material wealth (Hafford 2001: 42). In the ancient world, private accumulation was largely limited to the upper classes. Wealth ran in the family (it was hereditary); so did social status (Hafford 2001: 43). See also terms **Capital**, **Wealth accumulation→prestige** and **public accumulation**.
**Protocapitalism:** A primitive form of capitalism. For the elements of protocapitalism see Frank 1991. The term capital (see above) discusses why the modern notion of 'capital' should be used with limitations when studying the Bronze Age.

**Public accumulation:** Public accumulation occurs when a controlling political or religious institution within society accumulates profit in a public manner. This profit is stored and then redistributed in order to cover internal and external needs (see for example, Bronze Age palaces) (Hafford 2001: 42). See also terms Capital, Wealth accumulation—→prestige and public accumulation.

**Rationality and learning process in games:** Rationality is crucial in game theory but not all players are guaranteed to act rationally. Rationality of decisions and actions occurs when players put themselves in the shoes of other players and examine facts and actions from the rival's perspective (Montet and Serra 2003: 143). However, in practice, rationality must also be accompanied by experience. Experience means that players can observe the previous actions of their rivals, and therefore, take advantage of the history of a game, by studying the rational behaviour of other players (Montet and Serra 2003: 6, 76, 142). Additionally, players use past observations of play in similar interactive situations (Montet and Serra 2003: 6, 8). As a result, learning processes such as imitation, experience, routine and trial-and-error affect decision-making, 'shape' the formation of equilibria (see term equilibrium) and determine the outcome(s) of a game (Montet and Serra 2003: 77). Repetition as a learning process often encourages co-operation when a game is repeated (Montet and Serra 2003: 89).
Moreover, players can communicate with the purpose of exchanging information (Montet and Serra 2003: 6). This communication can be direct or indirect but it is usually bound by certain rules (Montet and Serra 2003: 74). It is noteworthy that pre-play negotiation involves the direct communication between players. Negotiating is crucial for making rational predictions over the outcome of the game (for negotiation, see also term games). Negotiating is also important for the creation of coalitions since players investigate and debate how their plans can be coordinated. Contact is crucial. If the players never meet or contact each other, they cannot exchange information and therefore the co-ordination of their strategies is impossible (Montet and Serra 2003: 74).

Reciprocal or customary economy: This type of economy is discussed in Renfrew 1975 and Sahlins 1972. It is a scheme according to which one gives something to another with the expectation that the receiver will -in the future- return the favour with a favour or gift of at least equal value to the first gift / favour offered. In other words, this is the economy of obligation (Warburton 2000: 72-76; Hafford 2001: 22). Sahlins has distinguished three forms of reciprocity. These were: a) a generalised reciprocity (where the value of the exchanged items is not important for the giver and receiver), b) balanced reciprocity, where the items exchanged should be of equal worth, and c) negative reciprocity, when the return item should be of greater value of that originally proffered (Sahlins 1972: 193-195). The idea of negative reciprocity is important for profit motive (Hafford 2001: 24). Sahlins notes that in times of crisis the practice of negative reciprocity increases. Reciprocity usually implies the transfer of goods on the
basis of kingship, friendship, status or hierarchy. Goods received are later distributed to those who need them without an explicit economic motivation (Sahlins 1972: 214).

Replicas of foreign artefacts: A replica is an exact copy of an item; and occasionally a fake. Replicas of original pieces are often the result of mass luxury (see above: mass luxury). A replica differs to an imitation (see above: imitations of foreign items) as it is a copy that is relatively indistinguishable from the original. To understand replicas, copies / imitations and fakes one should introduce the following question: Was it only the elite that collected exotica in the Eastern Mediterranean? In other words, did the middle classes not collect exotica? The answer is problematic. Nevertheless, some assumptions can be made: When / if the middle classes cannot 'afford' genuine exotica, but wish to imitate the elite on receiving trade goods or gifts from abroad, they produce their own foreign-like (exact or less exact copies, i.e. imitations and replicas) commodities for their personal consumption (see above: mass luxury). This explains why, for example, a non-genuine Egyptian but 'Egyptianising' scarab (an imitation, replica or fake), produced by a Minoan - and of usually lower artistic quality - can be found in Bronze Age Crete, on a site which is not directly connected to a palace or a mansion. One should assume that traders, craftsmen and intermediaries, who observed the trends in supply and demand, made the best of this 'obsession' of the middle and upper classes with collecting anything foreign or foreign-like, and therefore, produced and exchanged lower value exotica-like material for distribution around the Eastern Mediterranean. Needless to mention, the more the trend of foreign-like commodities expanded, the more potential 'customers' grew in number and the more such production
expanded, sometimes even to the point of mass-production; therefore, the foreign-like commodities would eventually reach both middle and upper classes. See also **imitations of foreign items.** It is sometimes difficult to distinguish if an item is a replica or an imitation of a foreign artefact, since the original may have not been discovered yet. Therefore, one needs to be very careful when using these terms.

**Repoussé:** Repoussé or repoussage is a metalworking technique in which a malleable metal is ornamented or shaped by hammering from the reverse side.

**Revenue or redistribution economy:** This type of economy is based on the collection of the output of labour from surrounding areas into a central storage area for this output to be re-distributed later to all those who need it. The division of labour is linked to a revenue economy (Hafford 2001: 26). Redistribution usually entails the obligation that someone feels to transfer goods to a political or religious institution (Polanyi in Dalton 1968: 9-10). Hicks argues that this economy is built upon taxation. In antiquity, tribute after warfare eventually became taxation. This is how elites, who were more specialised in collecting goods and redistributing them, surrounded themselves with luxury goods (Hicks 1969: 22). Hafford described how the ruling class controls the surplus generated by the masses and generally try to increase it, causing even larger social divisions. He argued that it would be pointless to have a redistribution economical system without an elite (Hafford 2001: 27).

**Rivalry:** The relationship between two or more competitors (in a world system
approach, these are two or more regions or zones) who regularly compete with / against each other.

**Schnabelkanne**: A jug or pitcher with the spout being narrow and relatively long, sometimes in the form of a tub. It is a ceremonial vessel and was frequently used for libations.

**Secco (or: al secco)**: < Latin, Italian > is a fresco painting technique in which pigments are applied to dry plaster that has been moistened to simulate fresh plaster.

**Seals and sealings**: Seals were often used to indicate the content, value, destination or owner of goods. They demonstrate administrative and economic elements. For the latest work on Aegean seals see Weingarten 2010, with further references.

**Sedentism**: The transition from nomadic to permanent.

**Seriation**: this is a relative dating technique in which assemblages or artefacts from numerous sites of the same culture (or occasionally from different cultures), are placed in chronological order by comparing their similarities.

**Sinopia**: < Latin, Italian > Sinopia is an ochre-like earth colour pigment used for the under-painting of a fresco. Sinopie usually guide the artist and are not visible in the final result.
**Sociocultural evolution**: a set of theories examining how cultures and societies evolve over time (Pitt-Rivers 1906).

**Souvenir**: Memento or keepsake; an object brought home by a traveller for the memories associated with it.

**Sphinx**: <Ancient Greek> Σφιγξ = the strangler. Sphinx is a mythological creature that is depicted as a recumbent feline with a human head.

**Staple goods**: Major items of trade in steady demand.

**Stela**: <Ancient Greek / Latin> pl. stelae; also written as stele; pl. steles. Greek στήλη -ai. A slab (usually made of stone) which mentions personal names and titles, commemorates historical events, refers to territorial marks or it has a funerary / cult use.

**Strategic form games**: A strategy is a plan of action and a set of moves a player follows on the basis of scenaria and possibilities (for instance, if this happens in the game, the player will act in such and such way) (Montet and Serra 2003: 17; Weirich 1998: 130-131). Strategies include a list of every single possible action that can be taken in a situation. Often agents follow not one single pure strategy, but **mixed strategies** instead, i.e. a set of strategies of variant value and nature. In non-co-operative games, this is often done in order for a player to confuse the opponent who, in this case, does not
benefit from guessing / knowing the next move. A **mixed strategy equilibrium** is an equilibrium in which players are uncertain about the rational choices of their rivals (Montet and Serra 2003: 84). In the so-called **finite games**, each player has only a finite number of strategies (Montet and Serra 2003: 20). The outcome of strategies, decisions and actions can me mathematically proven with the law of possibilities (Montet and Serra 2003: 19, 82-83; Weirich 1998: 4).

**Surplus**: Excess, i.e. more than is needed, desired, or required. The term is frequently used in economy.

**Sympathetic magic**: the belief that [action and result A] has a the same or similar influence upon [action and result B]. For instance, in Edwin Smith Surgical Papyrus the suggested treatment for a fractured scull is placing a compress on a broken ostrich eggshell. In this case, sympathetic magic is believed to operate because of the resemblance of the scull's frontal bone to the ostrich eggshell (Breasted 1930: 217-224; Ritner 1993: 54).

**Taxation**: The imposition of taxes. The practice of the 'government' or ruler or 'palaces' in levying taxes on the subjects of a state. See also **revenue economy**.

**Thalassocracy**: <Ancient Greek> from θάλασσα / θάλαττα (sea) + κρατεῖν (to rule). A maritime realm; a state of maritime supremacy. Minoan thalassocracy, a reference of which is made by Herodotus, has been a debate since the seventies and eightees. See for
example the edition of Marinatos and Hägg (1984).

**Theme**: < Ancient Greek > from θέμα. An artistic subject, topic or idea, iconographic, sculptural, or other. A common theme (koine) in the Eastern Mediterranean is the representation of the sphinx.

**Theoretical approaches of ancient economy**: These include a) formalism: according to this approach, the modernist view of the ancient economy, modern definitions of the subject and current economic theories can be applied to the ancient world (followers: Childe 1965, originally published in 1936, Silver 1995). b) substantivism: under this scheme, economics are seen as the logic of rational action and decision-making. The term refers to how humans make a living through their interaction within their social and natural environments (Polanyi 1957a, Finley 1985). Polanyi argued that markets dominated resource allocation in recent years, from the 19th century A.D. onwards (Polanyi in Dalton 1971: xiv).

**Theory of moves**: A theory invented by political scientist Steven Brams (2011). This theory allows players to decide and practice their next move within the matrix of the game and as the game evolves, on the basis of any of the payoffs of the game (Brams 2011: 57-64).

**Trade**: When the term 'trade' is used in this thesis, it equals the exchange process and it is not related to any activity involving money. For Polanyi, a market economy is based
on a historically specific system of production, distribution and consumption; in other words, a market economy depends on specific historical and institutional conditions (Halperin 1984: 257). However, long-distance trade had a distinct origin. As Ekholm and Friedman have noted 'Supralocal exchange systems existed long before the rise of the first civilisations, and, when considered as systems in evolution, they are crucial to an understanding of the emergence of civilisation' (Ekholm & Friedman 1993: 60).

Hafford describes the first systemic forms of ancient trade as negatively reciprocal (see term reciprocity); therefore, there was some form of trade between early communities. Trade, though, flourished within the large scale expansion of the core into periphery in the post-urban revolution era (Hafford 2001: 47). Hirth argued that trade played an important role in the process of social stratification (Hirth 1978: 35-36). In fact, the development of the market and trade is connected to the 'obligation' of the nobles to accumulate foreign artefacts (and therefore, practice international / long-distance trade).

As Marx says: '...meanwhile, the need for foreign artefacts of utility gradually establishes itself. The constant repetition of exchange makes it a normal social act' (Marx 1887: chapter two: exchange). Ekholm & Friedman added to this: 'As the system is directed by an upper class that remains the principal consumer, there is no room for “market” expansion except in the realm of long-distance trade'. Liverani also linked trade with politics: 'basic connections between the socio-political structure and trade patterns of a given period are beyond doubt' (Liverani 1987: 66). Hafford discussed the difficulties of international trade: 'Long distance trade requires an extraordinary amount of organisation and capital due to high overhead (volume of goods, transportation over large distances, tariffs) and logistical concerns (political and
cultural relations, language differences, protection abroad' (Hafford 2001: 53). See also terms market economy, exotica, market discussed above.

**Trader (and other professional) 'guilds':** traders who worked for themselves accumulated profit through their personal trading activities and only through them. They did not work for the state or for an institution, such as the palace or temple, like the public traders; therefore, they did not receive the reassurance, security and benefits of working with a state institution. Hence, freelance / independent traders requested some sort of protection and security when they carried out business. In order to get this protection, they had to receive support from their colleagues and they formed trader 'guilds' (Hafford 2001: 53). Trader guilds are discussed in the work of Pulak 1996, Popham and Lemos 1995. Archaeology can contribute to the research of mercantile and professional guilds and it should be expected that trader 'guilds' are found in places where items were produced, stored or sold / exchanged, since sometimes (but not always), the artist or craftsman is the one who trades his art or product. This effectively means that the fresco painter is entitled to trade his art. The concept according to which long-distance trader guilds were established primarily at the boundaries of major political systems still remains under debate. The guilds are more likely to be found at gateway communities but not solely at these places (Hafford 2001: 368). Other 'guilds' of professionals who traded their skills or products are also likely. Assemblages of physicians have been discussed in Arnott 1997. Other artists, such as pottery makers, sculptors and fresco painters, must have also established guilds. It is possible that, via networking, 'guilds' were in contact with other 'guilds', in international level. See also
traders.

**Traders**: (NB. When the term 'merchants' is used in this thesis, it equals 'traders', trade specialists. The act of trading - trade = exchange in a reciprocal manner- does not involve any monetary unit but the exchange of goods and services). The role of the trader is to *facilitate exchange, develop trade, promote market aspects, and attempt to maximise for themselves and/or for those by whom they are employed* (Hafford 2001: 52). Traders were divided into two categories: freelance traders, i.e. traders who work for themselves and public traders, i.e. traders who work for a public institution, e.g. the palaces. Knapp and Cherry (1994: 136) suggest that there were both freelance and public traders working in Ugarit, however, they all appeared to have some ties to local government. These traders would pay taxes to the state and enjoy the protection established via treaties with neighbouring countries.

The author finds that traders may trade the work of someone else or their own work. A pottery maker can both produce and trade his pottery. Similarly, a fresco painter can trade his skill, merchandising his art. However, if this pottery maker or fresco painter works for the palace, the rules change. In this case, the professional is obliged to make a product, for the palace or someone else to trade it / merchandise it / exchange it. Hence, the 'profit / wealth' goes primarily to the palace and secondarily to the pottery maker or fresco painter.

The traders who worked for the state (institution / palace / temple) were funded by the
state and therefore occasionally gained a high social status through being part of an institution (Hafford 2001: 52; 369). Professional freelance and public traders existed; these were very organised and operated over long distances (Hafford 2001: 368). Warburton said that professional traders targeted the elite in order to trade exotica (Warburton 2005: 172). There are, nevertheless, some exceptions, depending on the period and locale examined. Warburton, for example, states that Near Eastern craftsmen-traders (who both produced and traded their products) during the third millennium BC were linked to institutions. During the second millennium BC craftsmen were able to sell their products as private entrepreneurs; nevertheless, via taxation, they became subject to palatial administration (Warburton 2005: 176; For the role of freelance agents see also Warburton 2003: 184). The role of these agents grew as more and more commodities were chosen to travel longer distances; therefore, even independent traders or independent craftsmen-traders were, in reality, semi-independent, as they had to turn to the state to acquire their products of trade and high-value raw materials and art supplies. These producers / traders needed the back-up of the institution and paid taxes for it. Hence, their connection with the state was symbiotic (Warburton 2004: 184; Hafford 2001: 53-54). See also entrepreneurs.

There is also a mid way between public and freelance mercantile activity; for example, when an institution hired a private (freelance) trader or a 'guild' of private traders to further its own profits (Hafford 2001: 53). Both private and public traders might therefore become wealthy and enter nobility. Those involved with long-distance trade accumulated extreme wealth and may even have influenced government affairs (Hafford
Traders' class: In general, traders conducting long-distance trade can accumulate wealth; therefore their social status is advanced. As Polanyi suggests, 'there can be no middle class trader' (Polanyi et al. 1957: 259). Curtin adds: '...and traders in long-distance trade had obvious and unusual opportunities to make extraordinary profits of (sic) extraordinary risk' (Curtin 1984: 6). High social status and wealth could be obtained from the possession and control of goods and especially of exotic luxurious commodities (Helms 1993: 163-164). Hafford notices that as traders become richer, the wealthier and less dependent they get, the more direct competition among them increases (Hafford 2001: 63). Bronze Age trade and exchange specialists, and particularly the traders of the period that this thesis examines, were not only persons of high social status, but also proximate to the ruling class. In Egypt, for example, wall paintings from tombs show trade and exchange specialists – and gift / tribute collectors on behalf of the Egyptian ruler – in proximity to the Pharaoh (e.g. tomb of Rekhmire at Thebes). Even foreign traders who visited Egypt must have received special treatment by the Egyptians due to the nature of their profession.

Traders' multiple careers: Craftsmen, artists, missionaries, sailors, farmers, physicians, etc. would occasionally 'trade' their art and services in exchange for something else. Traders who worked for the public sector could be direct emissaries of an institution (see palaces), and in effect, delegates of the state. Traders, as emissaries, had additional duties. It is likely that there were some traders (of all the categories stated

2001: 53, 369). See also trader (and other professional) 'guilds'.
in the title of this paragraph) who acted like state emissaries / ambassadors / diplomats in foreign countries. Some even brought back, to their own countries, goods from afar, for personal possession (as a souvenir from a foreign land?), further 'trade' and circulation or, most likely, state use (Holmes 1975). State traders - diplomats accumulated wealth. These were members of (at least) medium to high social class and deliberately travelled abroad in order to receive prestige goods and serve their institutions / palaces. When state-level exchange is seen along with diplomatic correspondence, it is associated with 'greeting gifts' and gift-circulation among the Bronze Age Eastern Mediterranean elites. Traders were sometimes sent out to foreign courts as diplomats or diplomatic messengers, on organised state missions. As proof of this, from Egypt, comes EA 39: ‘My brother, let my messengers go promptly and safely so that I may hear my brother’s greeting. These men are my traders’ (Moran 1992: 112). (Notice that in their private correspondence, the rulers of the Bronze Age Eastern Mediterranean would call each other ‘brother’ so that pretentious family bonds symbolised a kind of alliance between them). Needless to say the breaking of language barriers was necessary in order for the agreement / exchange to be established.

Transculturalism: A term used by the author of this thesis to describe the development of civilisations within the world systemic frame, through consecutive interactions and social / political / economic affairs with other civilisations. The term essentially demonstrates the 'networking' and exchange of culture operating between the world systemic zones (see term networking). Any world systemic zone that encourages transculturalism, i.e. it is open to the exchange of culture with other regions, must share
a cosmopolitan morality within itself and with the exchanged zones.

**Travelling professionals (artisans / craftsmen, traders, etc.):** Professionals (working for the state or entrepreneurs) who travelled from place to place in order to produce and trade their skills and products. See also *Traders' multiple careers, Trade, Traders* and *trade and other professional 'guilds'*.  

'Treaty' trade: Treaty trade is used by elite classes to control the trade process across political boundaries. Treaty trade is conducted under a 'special agreement' between two or more 'governments' or rulers. Such trade, however, requires constant re-appraisal of contacts (Curtin 1984: 30-32). Some treaties between Bronze Age Eastern Mediterranean political entities discuss the disposition of traders killed in foreign territories and the retrieval of their goods, in other words securing the protection of their lives and property while away (See for example the treaty between Ugarit and Amurru discussed in Liverani 1990: 99). Treaties of such kind prove that Bronze Age traders were backed by the state itself; therefore, even if they worked privately, they were semi-independent and not completely so (Hafford 2001: 168). The nature of these treaties conducted among the Eastern Mediterranean rulers is always dependent on the power of the committing parties. Lesser kings, naturally, had to make concessions to greater ones. Therefore, these treaties often included reciprocal agreements and some treaties even specified a tribute that has to be paid in return for protection of the weaker by the more powerful (Hafford 2001: 168). See also *traders*.  

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**Tribute**: Payment (tax) offered by one nation to another, more powerful nation, for protection. The process involves the offering of goods and wealth to a superior power, sometimes, on a regular basis. This may be due to fear, respect, or to acknowledge a dominant overlord. See also **taxation**.

**Upper and Lower Egypt**: The 'Two Lands': a) To the south was Upper Egypt (*Sm*), stretching to modern Aswan, at the first Cataract. This was represented by the Tall White Crown (*ḥḏt*) and was symbolised by the flowering lotus. To the north of the country was Lower Egypt (*T3-mḥw*), where the fertile Nile Delta was formed. This was represented by the Low Red Crown (*dšrt*) and its symbol was the papyrus (Kemp 1989: 8-10).

**Wealth accumulation** → **prestige**: Wealth accumulation and prestige can be directly associated to the division of labour and hierarchy. A person, group of people or an institution receive prestige and the power / right to control society and the masses. Additionally, this leader (or group of leaders / institution) accumulates wealth to redistribute to the people. The higher the value or prestige accumulated by an individual, the higher his / her status in society (Hafford 2001: 20).

**'Western String'**: An archaeological term originally covering Kea, Milos and Thera. NB: The term is misleading as Thera is in the south Cyclades.

**World economy**: The idea of a world-economy is related to a core-periphery world
system. The concept is that the zones of the world-system display common economic features in the way they interact with each other. Evidently, world system zones share the same economic motives. As the systemic periphery develops, its economy becomes intertwined with that of the centre / core and a habitual trading network is established. This is how peripheries can become cores.

**Xenomania:** A strong preference for foreign goods, customs, manners, or institutions.
ANNEX OF FINDS
(The Annex corresponds to chapter Four)

Part 1.  Introduction and practical issues

The following pages provide further information about the Egyptian and Egyptianising items discovered in the Aegean, and particularly on Crete. The material was grouped according to iconographic image, artefact type or material (e.g. cat image, stone vessel type: amphorae, ceramic vessels), as also done by Phillips (2008: vol. 1). Most of Phillips' groups were also discussed in this Annex, but three extra groups were added by the author: 'items inscribed with Egyptian names and titles', 'pendants and amulets', and 'miscellaneous' (the latter accommodating items that are unrelated to any other groups).

The discussion in the Annex is based on the publication of Phillips, other major publications,1 and the spreadsheet (on the CD). The author summarised the main points raised in the already published catalogues of finds, but she also added to the discussion with her personal, critical analysis of the information. For instance, she used the spreadsheet for statistical purposes and comparatively observed and discussed the frequent archaeological contexts for groups of finds over time. Also, she commented on previous scholarship while expressing her own conclusions about the groups items. A

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1 e.g. Phillips 2008; Karetsou 2000a,b; Cline 1994; Kemp and Merrillees 1980, etc.
summary of the Annex was provided in the main part of the thesis, which is linked to the individual groups of finds in this document.

Indeed, the 'searchability' of the spreadsheet for a quick-view of specific items was proven to be of tremendous help in the critical analysis of the archaeological evidence, as the information on the spreadsheet is easy-to-access and straight-to-the point. Thus, the author encourages the reader to make the most of this file, since the search options are unlimited; from searching specific columns or 'selected' areas (e.g. search by catalogue number, site, comparanda, etc.) to browsing the entire spreadsheet. In the future, the completion of the spreadsheet will provide an even more thorough, 'bite-size' view of the archaeological material, also allowing for the evidence to be recorded in charts and graphs and thus used for statistical analyses. Yes, for the time being, in the author's mind, the spreadsheet is satisfactory to present the material culture which is related to this thesis, and even, to assist in the construction of some preliminary charts.

Note that Phillips grouped the items according to chronological periods, and the current author followed the same pattern of presenting the information. Often the author numbers the examples of finds per chronological period (e.g. there is only 1 example presenting the crocodile image in Protopalatial Crete), but providing the exact number of items per period is not always possible, as the date / context / original provenance of certain items is debatable. Therefore, numbers are often approximate.

The following key applies in the Annex, as well as on the spreadsheet.

| Key of symbols for catalogue numbers | P + Phillips' catalogue number corresponds to Phillips 2008. All 'P' (Phillips') items | K + Karetsou et al. catalogue number corresponds to | C + Cline's catalogue number corresponds to Cline 1994 | W + excavation number corresponds to Warren 2006 | KM + excavation number or museum | M + number given by the author |

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2 The author hopes to include more finds in this spreadsheet in the future, and incorporate all finds in the catalogue of Phillips.
3 see the final pages of this Annex: 'Diagrams'.
4 Phillips 2008: vol. I. For instance, she discusses groups of finds a) in Egypt, b) on Crete, according to chronological period (e.g. Middle Kingdom Egypt) or Neopalatial Crete.
5 This is the same key that the reader can see on top of every page on the spreadsheet.
counting from P577 onwards are listed on the 'off-island' sheet.

Karetsou et al. 2000

catalogue number corresponds to Kemp and Merrillees 1980
to miscellaneous

As in the main part of the thesis, any finds on the spreadsheet are catalogued according to the previous table (e.g. '[P9]', as catalogue entry '9' in Phillips 2008 is included on the spreadsheet). Otherwise, a full reference is provided instead (e.g. as Phillips' entry '552' is not on the spreadsheet, the item is presented as 'Phillips 2008: vol. 2: 266 [552]'). The latter is done to distinguish between items provided on the spreadsheet and catalogue entries that are not included in this database. The Annex ends with a set of diagrams and a discussion, in which the finds are seen as a whole. These graphs show the potential, future, statistic value of the spreadsheet, when the catalogue includes even more finds.

Because of the diagrams, the Annex is designed for the computer screen, and not for printing. Computer view also makes the document fully searchable. Lastly, as this is a computer file, the table of contents links and quickly redirects to the headings within the document via hyperlinks.
Part 2. Aegyptiaca on Crete and in the Archipelago

1. Some early artefacts

   ◦ Introduction and overview

Overall, finds that date to the Third millennium BC are mostly vessels. One of the 'earliest' Egyptian vessel fragments from Crete is an obsidian rim fragment from Knossos. ⁶ Egyptian closed vessels were most likely transported to Crete and the Aegean as containers. ⁷ Some scarabs and stamp seals were also found in urban or semi-urban centres. ⁸ The first ostrich eggshells were imported in the Prepalatial; ⁹ and items such as imported scarab [P476] from Platanos which depicts the Egyptian standing hippopotamus deity, would function as prototypes for the later Minoan image of the Genius. ¹⁰ Technological and stylistic transference of knowledge from Egypt to the Aegean is evident, even from the Third Millennium BC. ¹¹

   ◦ Time, space, context

On Crete, Aegyptiaca which date to the Third Millennium BC usually come from elite tombs, ¹² and palace compounds. ¹³ They are almost exclusively from urban and semi-urban centres. Yet, the majority come from problematic-in-date or unknown contexts. ¹⁴

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⁶ Phillips 2008: 40; vol. 2: 82 [139].
⁷ e.g. [P311] from Knossos.
⁸ e.g. [P28] from Aghia Triadha. More examples are provided in Phillips 2008: vol. 1: 123.
⁹ e.g. [P425] from Palaikastro.
¹⁰ See group 'Egyptian standing hippopotamus deity and Minoan Genius'.
¹¹ e.g. jar [P492] from Porti was made on Crete.
¹² e.g. anthropomorphic figurine [K6] from Palatanos, Tholos A.
¹³ e.g. statuette of User [P158].
¹⁴ e.g. jar [P311] from the palace of Knossos; exact context unknown.
Representative examples

The statuette of User [P158] (pictures 55-59) and the inscribed stone vessel of Userkaf [K43], which date to the early Dynastic Period, will be examined below.\(^{15}\) Other early artefacts that speak in favour of a M-E exchange of culture and commodities in the Third, and the dawn of Second Millennium BC, are the following:

An anthropomorphic figurine [K6] was found in Platanos, Tholos tomb A. The figurine recalls similar Naqada figurines, of funerary use. According to Phillips, Tholos tomb A at Platanos has produced vessels which are Minoan but have received some Egyptian influences.\(^ {16}\) The nearby Tholos B, from the same burial ground, has also produced Egyptian and Egyptianising artefacts, among them, a few Egyptian scarabs.\(^ {17}\) The Egyptianising finds from Tholos tombs A and B imply that Minoan craftsmen received artistic inspiration from Egypt and occasionally copied Egyptian items from the Third Millennium or early Second Millennium BC onwards.

An Egyptian spherical 'jar' of gabbro stone [P166] which dates to the early dynastic period was found in the palace of Knossos.\(^ {18}\) So did a pouring Egyptian vessel [P170], the shape of which is rare in Egypt, and therefore could be considered highly-valued by the Minoan elite.\(^ {19}\) Excavation at the palace of Knossos also produced an alabaster cylindrical jar [P311], which probably contained aromatic substances or pharmaceutics; possibly ointment.\(^ {20}\) If the jar contained ointment, it could be considered proof of transference of magical-medical knowledge and pharmaceutics, already evidenced from the Third Millennium BC onwards.

\(^{15}\) [P158] and [K43] are seen with the group 'Artefacts found in the Aegean, inscribed with the names of Egyptian individuals'.

\(^{16}\) see Phillips 2008, vol. 2: 226-231[459-474]. Naqada: a town in the location where modern Qena is situated. Naqada culture was extended to el Badari, Gerzeh, Nekhen (Hierakonopolis), and Qau. For the Naqada Period see Midant-Reynes 2003.

\(^{17}\) For the site and these Egyptian / ising artefacts see Phillips 2008, vol. 2: 231-233 [474-479].

\(^{18}\) It was found in the 'unstratified deposits' that produced numerous Egyptian vessels, north-west of the Palace (Phillips 2008, vol. 2: 100 [166]). For Egyptian spheroid jars see Phillips 2008: vol. 1: 68-69 with further references; El-Khouli 1978: II: 218 [1515], 221 [1535] and Aston 1994: 91 [1-2: list] with more examples.


\(^{20}\) This type and shape of Egyptian vessel is discussed by Aston B.A.G. 1994: beaker forms: [34-35]. Aston links it to funerary use.
Three more vessels come from tombs: A miniature jar [P467] from Platanos, Tholos tomb A2, which, though locally-produced, recalls Egyptian vessels; a miniature vessel from Mochlos, grave XIX, recalling the ḫs Egyptian type [K21]; also, another local Egyptianising miniature vessel from Porti [P492]. The vessels of the entries [P467], [K21], and [P492] are not originally Egyptian, but they were produced on Crete. They were inspired, however, by Egyptian vessel types.

○ **Conclusions**

Although it is clear that A-E relations in the Third Millennium BC were already an elite prerogative, the unknown or chronologically-'unsafe' context of many of the 'early' Aegyptiaca raises the following question. Were Egyptian and Egyptianising finds transferred from Egypt (and elsewhere) to the Aegean, shortly after their manufacture? Or were they transported later, as antiques? Both cases did occur, and often, the problematic or unknown archaeological context of finds makes answering this question entirely speculative. Clearly, as seen from [K6], artistic knowledge (if not a koinē or an international style) was transported as early as the mid Third Millennium BC. Yet, it is difficult to trace the nature of A-E relations at that time, although from the limited number of exchanged items available, the author gathers that A-E overseas long-distance exchange was hardly organised, and rather reciprocal in nature.

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21 For Egyptian examples see Aston 1994: 138-139; 132-135 and the discussion in Phillips 2008: vol. 1: 59-60; this is Warren 1969: type 28. The tomb has produced more Egyptian / -ising items. [K6] also came from the same site.

22 It recalls the Egyptian ḫs vases. ḫs vases were used for libations of liquids in Egypt, but it is not known if this Minoan vessel was used for the same purpose.

23 Jar, cylindrical, with everted rim and base in Egypt and on Crete, probably used as a container for pharmaceutics. See also Phillips 2008: vol. 1: 71-74 for these vessels in Egypt and on Crete, and [P311].

24 Thus terms § Egyptianising, § imitations of foreign artefacts, § replicas of foreign items, § artefacts of foreign inspiration apply.

25 This is concluded from the study of the archaeological contexts of these finds. Moreover, the masses did not have the technology and media in order to undertake exchange with foreign lands.

26 Similarly to e.g. [P104], which dates to the first dynasty but was modified in LM I. Obviously, Egyptianising items were made beyond Egypt, already from the Third Millennium BC (see the main corpus of the thesis: chapter Three).

27 i.e. it was a matter of exchanging luxury gifts, rather than 'trading' items.

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53
2. Scarabs, scaraboids and other stamp seals

- Introduction, overview and typology

Phillips discusses scarabs together with other stamp seals. 28 On Crete, many scarabs and stamp seals have come from problematic contexts or are erroneously published. 29 Egyptian scarabs are exported to the Aegean from the eleventh dynasty onwards. 30 Middle Kingdom Egyptian scarabs reached Protopalatial Crete and their local copies are found scattered around the island. 31 On Crete, some scarabs received modifications. 32

Scarabs and scaraboids were extremely popular in Egypt. 33 An overview of the development of scarabs in Egypt can be seen in (table 46a). As an amulet, a scarab was associated with the sun-god Khepri. 34 Seals appeared in scarab form from early Dynastic Period onwards, but amuletic scarab seals, carved on their face, were introduced in the late First Intermediate Period (table 47). 35 Scarabs functioned as 'seals' from the twelfth dynasty onwards, i.e. they were used to identify property, guarantee or 'signature', or even for authorisation purposes. 36

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28 It is the opinion of the author of this thesis that the two differ significantly, but they can be discussed together for convenience.
30 For imported Egyptian scarabs unearthed on Crete, and for locally produced scarabs, see Karetsou et al. 2000a: 302-333; Phillips 20008, vol. 1: 108-139.
32 e.g. [P104].
34 Ḫprī = He who came into being by himself < Ḫprr = dung-beetle (scarabaeus sacer / scarab; see Wb 3, 267.5-6,9, ), Ḫpr = become and derivatives (Wb 3, 260.7-264.15). The female scarabaeus sacer commonly pushes balls of dung on the earth; the Egyptians interpreted it as the god pushing the sun in the sky. The sacer is not the only beetle represented in Egyptian crafts; other beetles are represented as well. For Khepri see the lemma in Wilkinson 2003, Hart 1986: 101-102 and LÄ V: 968 - 981.
35 Seidlmayer 1990: 195-198; Winlock 1955: 89-90. The flat surface of a scarab seal, with or without design, is called the 'face'.
36 Ward 1978: 46 contra Andrews 1994: 52. Scarab finger rings were introduced in the Hyksos period (See Aldred 1978: 117 [32], pl. 32).
protective purposes, for both living and deceased. These, depending on availability and era, were made of various materials: steatite, faience, carnelian, amethyst, jasper, serpentine, lapis lazuli, diorite, turquoise, haematite, etc. From the eighteenth dynasty onwards scarabs were mould-made and mass-produced.

On Crete, scarabs and stamp seals operated in a similar manner to Egypt. Most, simply bear a design on the face (e.g. [P476]), with any scarabs with inscriptions being generally imported (e.g. [P483]). Certain Egyptian scarabs, such as the 'anra' type (e.g. [P215]), were misunderstood on Crete. Phillips states that most likely, Minoans could not read any Egyptian inscriptions on scarabs but saw them as motifs and artistic designs.

Scarabs and ovoids unearthed from Cretan tombs were the property of the deceased, or even offerings. Scarabs / scaraboids from the Protopalatial Period onwards were not limited to funerary contexts. In Protopalatial and Neopalatial Crete, there are two main styles of locally produced scaraboids: style 1 and style 2:

- **Style 1**, with most examples in steatite, generally demonstrate a body strongly tapering towards the head and a face design with drilled concentric circles (table 47).
- **Style 2** scarabs, in hard stone, have a simple face design, an amygdaloid body

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37 See Andrews 1994: 50-60 for scarab amulets, with examples. For instance, the heart scarabs, usually made of various types of green or dark coloured materials, were funerary / amuletic. The usually bore chapters 26 or 30A or 30B of the Book of the Dead and guaranteed that the deceased would enter afterlife, by 'making the heart silent' during the weighing of the heart by Anubis. For examples of heart amulets from Egypt see Andrews 1994: 56-57 and Sousa 2011.

38 Tufnell 1984: 42.

39 Weingarten 2010: passim.

40 Phillips 2008: vol.1: 133-134. See also the 'items inscribed with Egyptian names and titles'.

41 The debate on Canaanite scarabs on Crete and elsewhere is ongoing, even though Ben-Tor (2007) has shed plentiful light on this issue. Phillips argues that Canaanite scarabs were not produced before MM II A/B (mid thirteenth dynasty in Egyptian terms); 'thus, scarabs in contexts earlier than this period, whether in Egypt or Canaan, or imported onto Crete, must be Egyptian products' (Phillips 2008: vol. 1: 119-120).

42 Phillips 2004: passim; 2008: vol. 1: 125 (with examples). It is likely that some examples were used by the deceased during his lifetime.

43 e.g. scaraboid CMS II.2 #84 from Malia. A picture is also provided in Phillips 2004: 167, fig. 7:1.
and minimal back markings. 44

- Both styles evolved in time and developed variations, as seen in (table 46b). 45

Further points on scarabs discovered on Crete and the Aegean islands:

- No Egyptian scaraboids have been unearthed on Crete. 46
- No Minoan scarabs and scaraboids were produced before MMIA. 47
- Minoan ovoids are not connected to Egyptian prototypes. 48
- On Crete, imported Egyptian scarabs date from Protopalatial onwards. Some might be souvenirs. 49
- In the early periods (e.g. MM IA) Minoan scarabs copy Egyptian prototypes. 50
- Minoan scarabs manifest a typically Minoan face style and design. 51 These developed independently of Egyptian scarabs. 52
- On Crete, scarabs were used in life; and as funerary items, as mementa, household items and ritual objects. They functioned as seals; 53 in jewellery; 54 for religious / apotropaic / amuletic purposes and as ornaments on rhyta (the Minoan scarab connection with Egyptian cult remains problematic); 55 and as a

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44 e.g. scaraboid CMS II.2 #56 from Ailias (Prophetes Helias). A picture is also provided in Phillips 2004: 166, fig. 5, second down.
46 Protopalatial and later scaraboids are all indigenous types (Phillips 2008: vol. 1: 131)
47 Phillips 2008: vol.1: 131
48 Ibid. See also Phillips 2004: 163-164.
49 Ibid. The date of these scarabs is somehow problematic since it is not certain whether these are contemporary to Egyptian prototypes, particularly when they derive from unsafe or unknown contexts. See the spreadsheet for examples.
50 They demonstrate the hornless type of beetle, as in Egypt; thus, they were modelled after the imported Egyptian scarabs (Phillips 2008: vol. 1: 131-132).
51 Phillips 2008: vol. 1: 132
52 Ibid
53 They were used to declare one's property and demonstrate authentication of items, from the Protopalatial period onwards. This is indicated by the sealings discovered on Crete. See Fiandra 1968: passim and Weingarten 1986: 280-281. Weingarten (ibid) states that the Minoan administrative system was influenced by the Egyptian and Near Eastern administrative systems.
54 In pendants or around the wrist; e.g. the bull-leaper from Tell el-Dab'a (Bietak 1996: pl. IIIB).
55 The theory is problematic. Yule (1981: 78) argued that scarab seals were used as offerings in sanctuaries. Rutkowski (1986: 89-91) argued that the horned beetles, attached as ornaments on clay pots and rhyta, demonstrate the Egyptian scarabeus sacer; thus, the (solar) cult of the items is linked to the herding of sheep and the dung of these animals. Davaras also stated that there was a beetle deity in Minoan cult and links Minoan scarab seals to the Egyptian solar cult (Davaras 1988: 54).
Some imported Egyptian scarabs were reworked and modified according to Minoan taste, although, their Egyptian character is still recognisable. Others were simply re-used without actual alteration. Phillips identifies them as type 1 and type 2 conversions respectively. In type 1, the scarabs are Egyptian but the face is reworked. Type 2 signifies conversion by re-use, for example, scarabs were imported in order to be re-used as beads for jewellery; these are not modified. About 9 pieces from Crete were imported and then reworked; or their function changed on the island.

Indeed, as Phillips notices, scarabs in contexts earlier than MM IIB must have been Egyptian and not Levantine. - but this is debatable since the chronological investigation of scarabs - especially Canaanite - is still ongoing. Phillips calls the scarabs originated from the Levant 'Egypto-Canaanite' since from Thutmose III and until the end of the nineteenth dynasty, Canaan was part of the Egyptian empire. Nonetheless, purely Egyptian, Canaanite and hybrid Canaanite-Egyptian scarabs in the Levant should be carefully delineated.

A number of Egyptian or Egyptianising scarabs were unearthed in the Aegean islands. Just as in Crete, some look remarkably Egyptian but they were produced away from Egypt (i.e. they were made locally, or they were imported from somewhere else, e.g.

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56 Phillips 2008: vol. 1: 134, 136 (‘type two’). For the uses of scarabs and scarab seals see Weingarten 2010: passim.
57 This is a similar procedure to that of modified Egyptian stone vessels from LM IA onwards, which will be discussed below (group ‘Vessels and containers’).
58 See Phillips 2008: vol. 1: 135-137 for type 1 and type 2b conversions. This usually happens to eleventh dynasty scarabs.
59 This usually happened to imported Egyptian scarabs with blank faces. Modification involved carving a design on the face and adding a hole for a piece of string. Phillips 2008: vol. 1: 135 with examples. See, e.g. Phillips 2008: vol. 2: [44] from Agios Onouphrios. For an example of conversion by reworking on the spreadsheet, see e.g. [P42].
60 See Phillips 2008: vol. 1: 136-137 for type 2 and some examples, including a pictorial example of a necklace from Zapher Papoura chamber tomb 99. On the spreadsheet an example of conversion by re-use is [P262] which was used un-reworked in jewellery.
61 map 20 in Phillips 2008, vol. 1
63 Phillips 2008: vol.1: 119-120
The traits of these scarabs demonstrate their non-Egyptian origin. One also notices that genuine Egyptian scarabs, dating to the mid eighteenth dynasty onwards, were imported to the island of Rhodes. Many of these foreign scarabs and stamp seals must have reached the Aegean islands via Crete.

- **Time, space, context**
  - Prepalatial: Phillips provides 34 examples of scarabs and other stamp seals on Crete, among them 15 imported. There is a concentration of examples on the Messara plateau, and in effect, south Crete numbers more examples than north Crete at the time. The context of many items remains problematic. Technical differences define Aegean and Egyptian scarabs. The vast majority of scarabs have a decorative face (e.g. [P421]).

All scarabs and ovoids come from burials. Egyptian scarabs corresponding to this period particularly date to the eleventh or early twelfth dynasty (e.g. [P50], [P28]). These are Egyptian and not Canaanite. Some scarabs, especially from Messara, are very Egyptianising in style, but made locally, and the likelihood that a local workshop produced these pieces should be considered. Ovoids, mainly from 'white piece' material, are only found in the Messara region at the time (e.g. [P81], [P82]). Three of these ovoids are imported, but not all imported.

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64 See the following page.

65 For example, the crudity of the inscription, or the inscription itself, do not make sense in Egyptological linguistic criteria. See, the scarab from Melos (Phylakopi Exc. No SF766) in Lambrou-Phillipson 1990: 383, pl. 54. For its garbled inscription (three hieroglyphic signs, among which, nb and n) see Renfrew 1985: 300-301. The scarab imitates mid eighteenth dynasty prototypes but it was probably produced in Syria-Palestine (Cline 1994).

66 See, for example, scarab exc. no. 12,861, from Moschou Vounara, tomb 71. The scarab's face depicts Osiris flanked by two worshipping creatures; and a running hare (Cline 1994: 149; Lambrou-Phillipson 1990: 385-386 [567], pl. 55). From the same site, tomb 9, derived a scarab depicting a centred R11 sign (gd) in Gardiner, (the 'eternity' sign) between two 'uraei' (see Cline: 1994: [147]; Lambrou-Phillipson 1990: 386 [569], pl. 55). See also late eighteenth dynasty scarab in Lambrou-Phillipson 386 [570], pl. 55 with Osiris and Isis and a hieroglyphic inscription. For the inscription see Cline 1994 [150].

67 The following information is from Phillips 2008, vol. 1: 108-131, maps 15-20, unless otherwise specified.

68 As the author has previously mentioned, the exact numbers of items that Phillips provides are approximate, since the date and provenance of certain items is debatable.


70 Phillips 2008: vol.1: 124
pieces are necessarily Egyptian.\textsuperscript{71}

- **Protopalatial:**\textsuperscript{72} 28 pieces of scarabs and other stamp seals, about 11 imported,\textsuperscript{73} fewer pieces from the Messara compared to the previous period. There is a concentration of these items on the north-central coast (e.g. Knossos and its vicinity). Most scarabs come from funerary contexts and are made of stone.\textsuperscript{74} Some scarabs have a typical Minoan face design but the rest of the scarab is Egyptian (e.g. [P42]). Therefore, already from the Protopalatial, it is clear that scarabs can be grouped into Egyptian, indigenous Egyptianising, Egyptian modifications and reuses, or other (e.g. Levantine or Levantine hybrids). Minoan scarabs have a distinguished style, e.g. a *body distinctly tapering towards the head end*.\textsuperscript{75}

- **Neopalatial:**\textsuperscript{76} 17 in number; among them about 7 were imported.\textsuperscript{77} Their number drops compared to the previous period. The majority (7) come from north-central, and a few (4) from north-eastern Crete. The local production of Egyptianising scarabs also drops in numbers, assuming of course that the discovery of similar pieces in future excavations will not change this view. Context-wise, most come from tombs. Some imports come from problematic contexts (e.g. [P521]?,[P215]).\textsuperscript{78}

- **Final Palatial:**\textsuperscript{79} Very limited examples of scarabs and other seals. Only 8 pieces are provided by Phillips, and 4 out of the 8 are imported, not necessarily from Egypt (e.g. [P18]). Some come from burials. Scarabs were used as seals at the

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\textsuperscript{71} These are [P28] (Egyptian), Phillips 2008: vol. 2: 195 [392] (Egyptian, or Near Eastern or Syrian) and [P553] (Egyptian or Canaanite).

\textsuperscript{72} map 16 in Phillips 2008, vol. 1

\textsuperscript{73} The number of imported items is approximate, as items such [P388] are problematic in provenance.
For the catalogue numbers of ('possibly') imported pieces see map 16 in Phillips 2008, vol. 1.

\textsuperscript{74} Phillips 2008: vol.1: 126, with examples.

\textsuperscript{75} Type I, type II: Phillips 2008: vol.1: 126-127

\textsuperscript{76} map 17 in Phillips 2008, vol. 1

\textsuperscript{77} Again, the number of imported items is not fixed.

\textsuperscript{78} Phillips 2008: vol.1: 129

\textsuperscript{79} map 18 in Phillips 2008, vol. 1
time.\textsuperscript{80}

- End palatial, Post palatial, Post Minoan.\textsuperscript{81} 19 examples, a few imported (e.g. \textsuperscript{[P125]}) found mainly at Knossos and its vicinity. Some were used as beads (e.g. \textsuperscript{[P79]}). Scarab \textsuperscript{[P125]} is inscribed with the names of Amenhotep III but could date to the Final palatial instead. A post palatial example is an Egyptian scarab from Knossos, bearing amuletic signs.\textsuperscript{82}

\begin{itemize}
  \item \textit{Representative examples}
\end{itemize}

A scarab \textsuperscript{[P476]} from Tholos Tomb B at Platanos is of enigmatic origin.\textsuperscript{83} The face depicts the standing hippopotamus deity, accompanied by a baboon or hamadryas.\textsuperscript{84} The same site produced a number exotic items; along with items inspired by / or copying Egyptian models.\textsuperscript{85} These artefacts, of exotic character, demonstrate that local upper classes were fond of possessing exotica, copies of exotica and exotic-like items.

Scarab \textsuperscript{[P366]} (picture 24), the face of which is inscribed with hieroglyphic signs, was discovered in Tomb I, Lebena.\textsuperscript{86} There have been a few issues with its date, but with regard to origin, the item is most likely a genuine Egyptian scarab, of apotropaic character.\textsuperscript{87}

\begin{itemize}
  \item Phillips 2008: vol.1: 129
  \item map 18 in Phillips 2008, vol. 1
  \item This is the scarab in Phillips 2008: vol. 2: 156 [315]. See also Phillips 2008: vol. 2: 262 [540], of unknown context, that could be a forgery.
  \item See entry \textsuperscript{[P476]} for the suggested origin and for two new comparanda provided by the author, which have not been given in previous scholarship. The author considers the item local imitation of a foreign scarab; but the origin of its iconography is extremely problematic.
  \item Phillips 2008: vol. 2: 232-233. See catalogue \textsuperscript{[P476]} for a discussion of the scarab, its iconography and its association with entry 61 in Aston and Bader (2009), as suggested by the author.
  \item See Phillips 2008, vol. 2: 231-233 [474-479]. Among the exotica are two Minoan pendants are inspired by Egyptian themes (squatting ape and two apes back to back), a Minoan ovoid, an Egyptian scarab (twelfth dynasty), another scarab (Minoan or Egyptian; early twelfth dynasty), an Old Babylonian haematite cylinder seal and a dagger of the ranged Byblite type. More exotic artefacts from the same tomb are mentioned in Phillips 2008: vol. 2: 231 (discussion of context).
  \item The date suggested in Karetsou et al. (2000a) is wrong according to Phillips 2008 and the context from which the scarab derived is unsafe. See \textsuperscript{[P366]} on the spreadsheet. It is not certain if the apotropaic character of the item was maintained on Crete, since the face may not have made sense to the Cretans. It is likely that the item was acquired via trade / exchange, as a gift or souvenir.
\end{itemize}
Scarab [P197] (picture 21), inscribed with hieroglyphic signs, comes from the Knossos Royal Road Buildings, South Side. The scarab may originate from Egypt but it is Canaanite, linked to the Hyksos Period. It may have reached Crete via the Hyksos and their trade partners. Similar to the previous case is scarab [P215] from Knossos, from the 'Room of the Children's bones'. Phillips identifies it as an Egyptian (?) or, more likely, a Canaanite piece which copies Egyptian prototypes. The signs on the face, though recalling the anra formula, are enigmatic and crudely manifested. The item must have reached Crete via the Hyksos and their trade partners, or straight from Canaan. It is likely to be a very badly conceived and produced copy of an anra type scarab.

Scarab [P418], from Nipithitos, appears to be, if not genuinely Egyptian, at least very close to Egyptian prototypes. Most importantly, the hieroglyphic signs are written according to Egyptian standards and they are of amuletic character. The exact place and context from where the scarab was unearthed remains unknown, as it was handed in to the authorities. Keel has traced a rather similar inscription layout in Syria-Palestine. If the scarab is genuinely Egyptian, it may have provided inspiration for similar pieces in Syria-Palestine, and / or it may have reached Crete from Egypt via Syria-Palestine. Such a transaction would signify that Syrian-Palestinian traders often acted as intermediaries between Egypt and the Aegean, with the possibility that the gateways or diasporas played this role in the networking and exchange system.

88 Phillips 2008, vol. 2:112-113
89 For the Canaanite and Hyksos Period Egyptian scarabs see Ben-Tor 2007.
90 Wall, Musgrave & Warren 1986 state that the site is associated with sacrifices of children.
92 If the scarab was originally Egyptian the signs and anra formula would have been clearly defined. The signs have been copied by the craftsman without special talent.
94 See [§ imitations of foreign items].
95 As Martin Bommas kindly indicated to the author, via personal communication on 09. 02. 2010.
96 Phillips 2008: vol. 1: 207
97 For a similar layout of the hieroglyphic signs see Keel 1997: 457, n. 1083, in which the oval is replaced by a cartouche.
98 [§ gateway, § diaspora].
Scarab [P510] (picture 20), from Trapeza cave, is of a problematic date. Phillips considers it Egyptian. This scarab should be seen together with a Minoan but Egyptianising seal discovered near the Trapeza cave entrance and another Minoan Egyptianising seal or pendant from the back of the cave area. The cave was used as a communal burial ground along with other cult purposes. Both the nature and function of the site demonstrate that exotica and foreign-like objects were particularly popular in funerary and cult rituals. It is likely that a 'market' was created to cover these needs. A 'market' would explain why foreign items were copied by local craftsmen; otherwise imported exotica were luxury gifts.

Scarab [P541] is considered 'probably Egyptian' by Phillips. Pini stated that the scarab is certainly not Minoan. The detail on the face is extremely problematic, but the body has a comparandum in Egypt. The material (chalcedony) is exotic on Crete. To the present author, assuming that the original Egyptian design was possibly misunderstood, or no attention was paid to detail when the face was inscribed, then, the item could be a copy (imitation) or a low-quality replica. Of course, there is a possibility that the face was difficult to inscribe, as chalcedony is generally considered

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99 Phillips 2008, vol. 2: 251 [510]. See [P418] on the catalogue for suggested dates. The spirals of this piece can also be seen on [P418]. See (table 46a,b) for the type of scarab face with spirals. For a discussion of the motif and the creation of a market for this motif in the Eastern Mediterranean, see the author's comments in the catalogue [P418]. The author agrees with Phillips that it dates to the twelfth dynasty, on the basis of its comparanda.

100 Phillips 2008, vol. 2: 251 [509]. The seal is theriomorphic, in the form of a seated ape. The seal illustrated in Phillips 2008, vol. 2: 251: [511] is also theriomorphic, in the form of a signet surmounted by a hanging ape-head. For the monkey / ape, baboon figure in cross-cultural A-E relations see the end of chapter Three: 'Egypt to the Aegean'.


102 The popularity of exotica created the need for exotica to be copied or, local products to receive artistic inspiration from exotica. Whereas a number of exotica imported to the island was covered by inter-elite exchange, local imitations of exotica would cover the wider use of these items in the Minoan community. See terms [§ replicas of foreign artefacts, § imitations of foreign items] which discuss why items were copied or imitated.

103 Phillips 2008, vol. 2: 262 [541]. The site is unknown, the date and material of the scarab are problematic.

104 Via communication between Phillips and Pini: 09-02-1989, as stated in Phillips 2010.

105 The comparandum in question is a scarab from the tomb of Maket, as noticed by Phillips (2008: vol. 2: 263).

106 See [P541] for a discussion of the material.

107 The misunderstanding of the nb-ty or ḫ3 (M16) is suggested by Phillips for the face of this scarab (2008: vol. 2: 263 [541]).
hard enough to trouble a less experienced craftman. Yet, since the body has an Egyptian parallel, [P541], if indeed Egyptian, it could be a modified scarab type 1 (i.e. imported blank, crudely carved on the face).

Scarab [P455] from Phaistos has also raised questions of date and origin. The depiction of the sistrum-like figure of Hathor on the face of the scarab possibly demonstrates a cultural / religious association between Egypt (?) and Crete, the extent and nature of which is not clear.

A scaraboid from Poros [P487] is clearly an example of a made-on-Crete scarab imitating Egyptian prototypes so distantly that one may say that the item is distantly inspired by Egyptian prototypes, rather than attempting to copy them. A similar scaraboid, produced locally, comes from Malia, Sanoudakis plot. The reader should note that the site produced a specialised seal and jewellery workshop, and another building, decorated with frescoes, nearby. The item was found in the building with the frescoes.

Scarab / oid [P270] from Knossos is made of greenish-brownish jasper or smoky quartz. It derived from the three-part tomb VII, which contained burials in larnakes

109 For type 1 modified scarabs see the introduction of this section (scarabs).
110 See [P455] in the catalogue for problems with regard to origin and date.
111 Cultural and religious ideas and beliefs were transmitted via networking, trade and exchange and items such as the scarab in question. Note that sistra have been discovered on Crete. See, for example, MM IA sistrum from Fourni in Karetsou et al. 2000a: 267 [265] (Π.Σ.) or [P53]. In Egypt, Hathor, usually depicted as the cow-goddess with the sun disk between her horns, was associated with love, beauty, music, motherhood / fertility and joy, music, dance and foreign lands. Some of these beliefs might have been transferred to the Aegean along with the sistra and the figure of Hathor. Moreover, the Minoans were familiar with serpents in their cult (see, for example, the Minoan 'snake goddess' figures (picture 93); Phillips 2008: vol. 2: 92 [157]).
112 The Minoan identity of the item can be confirmed from comparanda such as [P384]. See § artefacts of foreign inspiration.
114 See Phillips 2008: 237-238. It is not certain whether the scarab was produced in the nearby workshop or not.
115 There is a disagreement about the material. Phillips suggests that the item is made of smoky quartz whereas the Karetsou catalogue mentions that the material is green jasper. See Karetsou et al. 2000a:
and grave goods such as jewellery (rings, earrings), lapis lazuli, etc. A pendant (?) in the form of a midget (?) and a pendant (?) of a fly were found in the same tomb. The wealth of this tomb suggests that exotic and foreign-like items unearthed from this tomb are all connected to the tendency of the elite to consume such products. Quirke & Fitton suggest that the motif on the face of [P270] recalls First Intermediate Period examples of plant motifs. This author connects these floral designs with two fish dishes from L81, Tell el-Dab'a. The item is of local manufacture, but the material is imported. It should be considered locally produced, of foreign raw material, or, less likely, as a modified exoticum, type 1. The face of this scaraboid is crudely carved. This is due to a lack of dexterity of the craftsman, or due to face style. If the item imitates Canaanite prototypes, then this crudity might be justified as a face style ([table 46a,b]).

Last, scarab [P40] (picture 17) from Agios Onouphrios is considered 'possibly Egyptian' by Phillips but the motif on the face does not make sense in Egyptological perspective and it could be anything other than a lotus flower in a nb-basket. The scarab is either made locally (badly imitating Egyptian prototypes), or imported from somewhere else other than Egypt. In any case, the face motif appears to be misunderstood by the craftsman.

Regarding the islands, an Egyptian scarab [C131] from Ialysos dates to Thutmose III
according to Cline.\footnote{See Cline 1994: 147. A handful of scarabs have been discovered at Ialysos (Moschou Vounara and Macra Vounara). Most of them date to the late eighteenth dynasty or even the early nineteenth, and will not be discussed here. These are described in Cline 1994: 147-150; Lambrou-Phillipson 1990: 386, with further references.}

A few more scarabs which bear the royal titles of Amenehotep III, will be mentioned with the artefacts inscribed with names of Egyptian individuals (the following group).

- **Conclusions**

Foreign scarabs from Crete are Egyptian, but some pieces are also Levantine (-Egyptianising), since the Canaanites copied and reproduced Egyptian scarabs and circulated them in the market. Yet, genuine Egyptian scarabs were also imported to Canaan, and some could have been transferred to Crete by Canaanites. The author reached these conclusions with the following information in mind: it is now confirmed by Boschloos that there were special workshops in the Levant where Egyptian scarab copies were produced, and even Canaanite merchants who specialised in the distribution of these -and genuine Egyptian- scarabs.\footnote{Boschloos 2012: 6-7}

The author, based on the scarabs studied so far, agrees with Phillips that Minoan scarabs derived directly from Egyptian prototypes.\footnote{See the introduction of this group.} In particular, this is the case with indigenous Prepalatial examples; as after the Prepalatial, their connection with Egypt became distant.\footnote{An exception to the rule is [P56] (Protopalatial) which is remarkably Egyptianising but Canaanite. For instance, compare [P419] (very close to Egyptian prototypes) to [P484] (relatively close to Egyptian prototypes), and [P485] (distant to Egyptian prototypes).} As Phillips rightly points out, an observation of their context does confirm that scarabs were used as funerary offerings, were personal items of the deceased or even souvenirs. A religious association is possible, particularly in Northern Crete.\footnote{Phillips 2008: vol.1: 132}

The number of local and imported scarabs dropped in Neopalatial Crete. Phillips argues that they stopped being popular as they were being replaced by other shapes (e.g.
lentoids) but the present author wonders if recession and instability in the Eastern Mediterranean market could also be to blame.\textsuperscript{131}

Phillips' maps indicate that scarabs (esp. the imported pieces) were popular in the Messara region in Prepalatial Crete, for the fashion to expand to northern and eastern Crete later. The concentration of these items in the Messara suggests that Egyptian trade was active within the region at the time.

In the author's opinion, it is likely that the scarabs had some cultic value when first imported to Crete, but this value seems to have been lost as the years passed. Note, for instance, that in the End Palatial period, many scarabs functioned as beads or souvenirs (e.g. [P265]). Some scarabs from Crete were likely to have reached Crete long after their manufacture.

From Phillips' catalogue, in combination with the spreadsheet (which includes a representative number of these items from the Aegean) it is obvious that the Cretans were willing to import many foreign scarabs, ovoids and seals. This is probably because, thanks to their relatively small size, resistant material and wide use, these items were handier to transport and more appropriate to merchandise.

The author maintains the hypothesis that the modification and different re-use of imported scarabs on Crete might be down to economic reasons. Alternatively these items were modified in order to match Aegean aesthetics and trends, because they had a ritual character or because they bore a personal value for their owner, who therefore did not wish to dispose of them.

\textsuperscript{131} Phillips 2008: vol.1: 131
3. Artefacts with names of Egyptian individuals

Introduction

Some Egyptian and Egyptianising items discovered in the Aegean - scarabs, figurines, ovoids, etc. - bear Egyptian hieroglyphic signs and inscriptions.\(^{132}\) Phillips argues that such items, e.g. scarabs of the 'anra type,\(^ {133}\) were misunderstood on Crete and most likely, the Cretans, who could not read their inscriptions, saw the hieroglyphic signs as a motif or design;\(^ {134}\) but was this really the case? Whereas the author finds that Phillips' argument is true with regard to specific items,\(^ {135}\) generalisation should be avoided because of the uniqueness and diversity of individual pieces.\(^ {136}\) Although items with hieroglyphic signs but without royal prenomina (e.g. \([P366]\)) and items with royal prenomina (e.g. \([P262]\)) should be confronted as two entirely different case-studies in research, the examination of both groups may provide clues about whether such signs and inscriptions were comprehended by the Aegeans. The following discussion refers exclusively to items with prenomina of royal individuals and references to deities. The main question is whether such items, in the Aegean, were valued for their text.

Overview

Items with Egyptian hieroglyphic signs and inscriptions are found throughout Crete (particularly in Central and Eastern Crete) and beyond.\(^ {137}\) Especially items bearing prenomina of individuals number 13 examples on Crete: an ovoid, an amphora, a statuette, a lid, and nine scarabs.\(^ {138}\) Some examples have been found in other parts of the Aegean, e.g. the scarab with the titles of Amenhotep III from Rhodes \([C132]\).

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132 e.g. \([P197]\) (picture 21), \([P315]\). These are not examined in a separate chapter in Phillips 2008: vol. 1, but the author considered it more appropriate to examine them separately.
133 e.g. \([P215]\)
134 Phillips 2008: vol.1: 133-134
135 e.g. \([P215]\), for which Phillips notices that the inscription, against Egyptian norm, reads from the head end (2008, vol. 1: 120 \([P215]\)).
136 This is because every item demonstrates very special traits on the body, face and hieroglyphic inscriptions.
137 See e.g. Phillips 2008: vol. 2: 181 [365].
138 These are: \([P18]\), \([P158]\), \([P163]\), \([P262]\), \([P521A]\), \([P521B]\), \([P446]\), \([P114]\) and the following items which are not on the spreadsheet: Phillips 2008: vol. 1: 153 [314], 158 [320], 325 [482], 26 [39], 29 [44].
The items from Crete can be grouped as follows:

- 1 item bearing the name of a private individual [P158]
- 7 items bearing royal prenomina, e.g. [P265], [P114]
- 5 items bearing 'Amon-Re', although items in the first two groups are sometimes related.

**Time, space, context**

Similar items discovered in the rest of the Aegean may have arrived there via Crete. The archaeological context of all 13 'Egyptian' inscribed items from Crete is either unknown or problematic, and the value of these items in A-E chronological links is speculative. A good number (5) were found at Knossos, and the majority, when the context is known, come from the north-central coast. All 13 items from Crete are described as 'Egyptian' by Phillips. Scarabs with 'Amon-Re', date sometime from mid eighteenth dynasty onwards (to the twenty-second dynasty). The scarab with the name of private individual 'Weser' [P158] probably dates to the MK. All items with royal prenomina date from the reign of the ruler whose prenomen is inscribed, to (slightly) later; the latter applies if they reached the island (long) after the reign of the Pharaoh. In truth, many of these items might already have been antiques when they reached the Aegean, and even more 'antique' when they were disposed of in their archaeological context.

When the context is known, this is funerary, or domestic, or palatial / ceremonial or even debris. Unsurprisingly, the dates of most of these finds have created

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139 e.g. Phillips 2008: vol. 2: 29 [44].
140 e.g. Phillips 2008: vol. 2: 325 [482].
141 e.g. Phillips 2008: vol. 2: 275 [584].
142 [P158], [P163], [P262], [P414], and Phillips 2008: vol. 2: 159 [320].
143 e.g. [P114] from Katsamba.
144 Phillips 2008, vol. 1; see individual entries for different views.
145 See Phillips 2008: vol. 1: 153 [314], 158 [320], 325 [482], 26 [39], 29 [44] and [P446] for individual dates and the items' archaeological context.
146 See [P158] for disputes about its date.
147 For individual dates and context see [P18], [P163], [P262], [P521A], [P521B], [P114] and Phillips 2008: vol. 1: 235 [482].
148 e.g. [P262] is funerary, as seen on the spreadsheet.

68
chronological debate.  

○ Representative examples

A number of Egyptian / Egyptianising artefacts discovered in the Aegean bear inscriptions with names of Egyptian individuals, commoners or kings. This group of artefacts should exclude Egyptian bowl [P584] from Kythera with the inscription $nR \text{w}$ near the rim. This inscription does not display the name of Weserkaf, but rather the name of the Sun Temple at Abusir. The item is an antique in its context and it was transferred to Kythera via Crete.

Scarabs [P262], [P125] (pictures 27-30) and ovoid seal [P18] (pictures 38, 39) from Crete, are inscribed with the royal names and titles of Amenhotep III ([P262], [P125]) and those of his wife, Tiyi ([P18]). A similar scarab, bearing the royal nomen of Amenhotep III, was discovered in Rhodes [C132]. These items will not be discussed thoroughly, as they date beyond the chronological limits of this study. Nevertheless, they are presented in the catalogue as they are exceptional examples of discovered-on-Crete artefacts inscribed with Egyptian royal names. Moreover, they raise a number of questions over the circulation of items bearing Egyptian royal names in a wider Mediterranean context; their foreign imitations, and the intentionality of such artefacts in foreign lands.

One notices that some items inscribed with Egyptian names derive from contexts associated with the elite; and may, or may not, be antiques in their context. Take, for example, statuette [P158] (pictures 55-59) from Knossos. The artefact is generally considered Egyptian, of problematic date and context, but certainly discovered in the

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149 See e.g. the chronological debate about Khyan's lid [P163].
150 The inscription is $nR \text{w}$ (see LÄ VII, 294), i.e. 'Enclosure of Re', the name of the Sun Temple of Weserkaf at Abusir). For the temple see Porter and Moss 1960-: III. 1: 324-325. For the name of the temple see Riche 1965-1969: I: 42-43; II: 4,6, fig. 1.
151 The present author poses the hypothesis that the item was transported to the Aegean as an antique product of trade or as an item initially derived from a looted tomb or other Egyptian site. Of course, it is impossible to confirm this information.
152 See the catalogue entries [P262], [P125] and [P18] for a brief discussion of these items and a number of hypotheses about how these artefacts reached Crete.
palace. It is inscribed with the name of an Egyptian, called Weser (or Weser-Wadjet), who was 'justified' (i.e. the item was most likely, but not explicitly, funerary in its Egyptian context). Still, who was this man named Weser?

Ward studied the inscriptions on the statuette and suggested that the 'commoner' named Weser was a 'goldsmith who had left his native land to seek his fortune abroad and that he was in Knossos in the capacity of a private individual' rather than an Egyptian court official. Ward's assumption was based on the concept that the stele of Taw from Edfu (sixth dynasty) provides the title ımy-r^w^d^h (?) nb (overseer of gold-casting), i.e. a similar title to Weser's statue wd^h (?) nb. The idea that a foreign craftsman, and in fact, a goldsmith, worked on Crete is fascinating and might be able to explain some Egyptianising or Egypt-inspired items discovered there. The item was found in the vicinity of the Knossos palace - and thus, the statue and its owner were most likely associated with the palace and its business. The present author does not suggest that the item was a luxury item per se; rather, that its context was associated with the palace elite. It is unknown whether the statuette reached Egypt via palace enterprise or a freelance trader or some other individual.

Phillips has also wondered whether the commoner called Weser was a scribe himself; the one who carved the inscription on the item. Alternatively, the statuette, or a scribe, responsible for the inscription on the statuette, accompanied him to Knossos. However,

153 For other Minoan Egyptianising or Egyptian artefacts from Knossos, and in particular, the palace area, see Phillips 2008, vol. 2: 76-159 [131-320].
154 Phillips 2008, vol. 2: 93-94 states that the item's primary context in Egypt was a tomb; otherwise, the statue was a temple / shrine donation. For a discussion of the exact name of the individual see catalogue entry [P158] in Phillips' publication. The item was originally a funerary item in Egypt, as indicated by m3r- hrw in the inscription, which is commonly inscribed on funerary items (contra exceptions such as Couyat and Montet 1912: 48, no. 43.12, where m3r- hrw is used for a living person).
155 Ward 1961: 28-29. See also [§ traders: private trader?, § trader's multiple careers]. Notice the concept of travelling craftsmen-traders in the Eastern Mediterranean [§ travelling professionals (artisans / craftsmen, traders, etc.)] and that of the 'guilds' [§ trader (and other professional) 'guilds']. Also, on an Egyptian / African presence on Crete, consider the similar case of the Egyptian shepherd mentioned on the Linear B tablet from Knossos [P274] and MacGillivray's theory that the fresco with the 'Captain of the Blacks' depicts Africans (in the services of the Egyptians) working on Crete (in chapter Seven). The possible Egyptian presence in the Aegean is discussed in chapter Seven.
156 Especially if one considers that a craftsman usually switched between various forms of art, from the production of vessels (e.g. [K73]) to the manufacture of pendants (e.g. [P576]).
she expresses severe doubts that Weser ever visited Crete, otherwise suggesting that statuette [P158] (pictures 55-59) is just another import to Crete. Moreover, it was astutely suggested by Griffith that the statuette was linked to the Wadjet nome (Wadjet district) who translated the inscription as if Weser was born there.

The current author also suggests that the item may have reached Crete as a looted item, thus, following Warren's concept that some items, such as antique vessels, originated from looted Egyptian sites and they were circulated in the Eastern Mediterranean either on their own, i.e. as trade products or gifts, or, accompanied by specific individuals (the site robber, a tradesman, a sailor, a soldier, etc.). The item should be seen as an exoticum: it appealed to the Cretans due to its exotic nature. Moreover, unless the locals could read and understand the content of the inscription, the item probably received an ornamental use. Effectively, however, all suggestions on how the statuette reached its secondary context on Crete, remain entirely hypothetical.

The well-known 'Khyan's lid' [P163] (pictures 40, 41), from the palace of Knossos, is inscribed with the royal names and titles of Hyksos King Khyan, but the titles do not necessarily signify that Khyan owned the lid and vessel, or, that the king himself, or a diplomatic mission of his, visited the Knossos palace to transport it there. The date of the piece is very problematic, to the point that only suggestions may be offered about when - and how- the item reached Crete. Thus, if one accepts that the item was transported to Crete in the reign of Khyan (problematic), it is likely that it did so as a ruler-to-ruler reciprocal gift, in order to formalise a diplomatic or other agreement between Knossos and the Hyksos. Still, Phillips suggests that the lid was imported

158 Griffith in Evans et al. 1899-1900. Phillips adds (2008, vol. 2: 93) that the Wedjet nome (~Aphroditopolis) refers to the 10th or 22nd Egyptian nome, but, on the basis of the inscription on the statuette, the Wedjet nome in question is the 10th, since it is represented by the snake (I 10) with ostrich feather (H6 in Gardiner) on its back, i.e. (I 31     in Gardiner).
159 Warren 1969: 108
160 i.e. it was valued for its 'foreignness, as seen in the term [§ exotica].
161 It is not the purpose of this thesis to discuss A-E relative chronological links on the basis of this lid.
162 The lid and vessel were probably seen as luxury items. Such a concept would agree with the suggestion that the Aegean / Minoan frescoes at the Hyksos citadel of Avaris were made in order to cement a special event or diplomatic / political / other agreement between Crete and the Hyksos, but only if the Avaris frescoes were accepted to date to the Hyksos Period (see chapter Five:}
into Crete 'long after Khyan's reign and possibly not before the New Kingdom'. In that case, any correlation with reciprocal gift-exchange and official palace-to-palace agreements should be abandoned: the lid was an antique in its context and it may be seen as a mere import of high value. If so, the lid was a product of trade, or it was brought to Crete by a traveller. The last is also supported by the function of the lid. The lid must have sealed a travertine container; most likely a cylinder jar, when similar jars in Egypt normally contained pharmaceutics. Judging from the elaborate inscription on the lid, the contents of the vessel were of high value, to the point that only the elite could 'afford' to acquire them.

An alabaster amphora [P114] (pictures 87-89) from Katsamba bears an inscription with the royal prenomina of Thutmose III in two cartouches. It was discovered in the horseshoe-shaped 'Tomb of the Blue Bier', together with two Egyptian stone vessels [P115][P116]. Phillips comments that the wealth of the grave goods and the number of imports indicate that the tomb dates to the Final Palatial occupation of Knossos. The amphora may, or may not, be an antique in its context, i.e. it was transported to Crete during the late reign of Thutmose III, or later. There is also a debate over the origin of the item, in which the present author appears undecided (Egyptian or

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164 See [§ souvenir].
165 To the author's knowledge, only stone basketwork relief fragments and pottery were discovered in the lid's context (see Palmer 1969: 142-143). It is likely that the vessel was lost or not properly recorded. The commentary about the vessel matching the lid was kindly offered to the author by personal communication with Bommas on 02-02-2010. The pharmaceutical substance might have been perfume, a beauty product, ointment, a psychotropic medicine like opium, etc. Cylinder jars in Egypt may range from a miniature size (used for funerary purposes) to up to 60 cm high. They were particularly popular during the Third Millennium BC, but they also derive from later contexts. For the shape and usage of the cylinder jar in Egypt see Aston 1994: 33-35 (beaker forms). For the export of Egyptian cylinder jars to Crete see Warren 1969: 111. For the Minoan imitations of Egyptian cylinder jars see Warren 1969: 75-76.
166 The site of Katsamba, which combined habitation areas and cemeteries, was the Minoan harbour of Knossos. The tomb dates to LM IIIA1. The name was inspired by a blue-painted larnax discovered there. For the site see Evans PM II. 1: 232-235, fig. 131:a; Alexiou 1952; 1955; 1967. For the tomb, see Alexiou 1967. For the vessels in question, see Karetsou et al. 2000a: 222 [220-221] (Ελ.Κ.) and entries [P115] and [P116] in the catalogue, or Phillips 2008, vol. 2: 68 [115], [116].
168 The context's date, and the A-E chronological links with respect to this inscribed item, are interpreted differently in the 'high' or 'low' Aegean chronological schemes. See entry [P114] for further comments on the date of the item and context.
Egyptianising). If it is accepted that the amphora is indeed Egyptian (according to the catalogues of Karetsou and Phillips),\(^{169}\) then, it could have been exported from Egypt to Crete as a gift to the court of Knossos, during a diplomatic or mercantile mission to Egypt.\(^{170}\) Otherwise, the amphora, together with the two Egyptian vessels from the same tomb, were offered to the Knossos court during the trip of an Egyptian mission to the island.\(^{171}\)

There is of course the other side of the coin. The 'medium quality' of the item\(^ {172}\) may signify that the amphora was produced by an Egyptian (or non-Egyptian) craftsman who lacked the necessary skills in the manufacture of the vessel and possibly the understanding of the inscription of the royal nomen. Particularly the 'un-egyptian' trumpet vase has made Martin Bommas and, to some extent, this author to believe that the item has not come from Egypt, but it is possibly made in the Levant.\(^ {173}\) Moreover, Lilyquist suggests that the item is Canaanite.\(^ {174}\) To the author's mind, if the amphora is not Egyptian - and it is Canaanite instead - then one may assume that a Levantine craftsman manufactured an amphora with both Canaanite and Egyptian traits, he added the Egyptian inscription of the royal prenomina on it, and the vessel was later exchanged or 'merchandised' in the Eastern Mediterranean, to finally reach the Cretan elite.\(^ {175}\) Yet, Leahy has rightly drawn attention to the fact that the inscription does not appear remarkably un-Egyptian and it is relatively well inscribed; any imperfections may be because travertine is generally not easy to inscribe.\(^ {176}\) The amphora was a container: it probably contained some sort of aromatic unguent, which is a product of

\(^{169}\) There are both Egyptian and Canaanite comparanda for this vessel (see the spreadsheet).

\(^{170}\) According to Kavoulaki in Karetsou et al. 2000a: 220-221; Phillips 2008, vol. 2: 67 [114]. The reader should consider the suggested date of the Avaris frescoes in chapter Five (Thutmoside Period according to Bietak et al. 2007); and the date of the Aegean processional scenes in chapter Six (tables 53, 54) (peak of diplomatic relations: reigns of Hatshepsut / Thutmose III).

\(^{171}\) According to Kavoulaki in Karetsou et al. 2000a: 220-221.

\(^{172}\) The item is of 'medium quality' according to Lilyquist (1995: 7, 41).

\(^{173}\) Personal communication with Martin Bommas (11-02-2010). See entry [P114] for further comments about the non-Egyptian origin of the item. Lilyquist also suggests that this amphora is of Canaanite and not Egyptian origin (Lilyquist 1995: 7, 41 [95], 103 figs. 90-9; 1996: 148).


\(^{175}\) For the reasons why the amphora may not be Egyptian, and for a discussion of the item's provenance, see [P114] on the spreadsheet and Phillips' catalogue.

\(^{176}\) Personal communication with A. Leahy (17-11-2011).
trade and exchange *per se*. If the amphora is not Egyptian, it would be certainly 'very' Egyptianising, to the point that it could be called a 'replica' or 'imitation' of similar Egyptian amphoras bearing inscriptions with royal prenomina.

**Conclusions**

Overall, the majority of the inscribed items with prenomina were imported to Crete in the Final and End Palatial period. Some items that Phillips considers Egyptian are considered un-Egyptian by other researchers.

Considering the 'diplomatic gift' role of some of these items, the latter is under dispute, especially if these are seen as decorative items, items where the inscription is not understood by the Aegeans, souvenirs, everyday items or antiques in their context. Phillips argues that the scarabs with the names of Amenhotep III and Ty (e.g. [P18], [P125]) were possibly considered apotropaic on Crete, rather than having received a diplomatic / office function, mentioning that similar inscribed items were plentiful in Egypt. This is only valid if one assumes that the Aegeans could not read their inscriptions. To this, Phillips adds that the Minoans most likely could not read any Egyptian inscriptions on scarabs or other items, but saw them as designs instead. This notion, in the present author's opinion is only party right. The majority of Aegeans were not in a position to read and comprehend the inscriptions, but there could be some (probably very few) exceptions: Aegean individuals who had been to Egypt and had become familiar with the local language and civilisation might be able to do so. Yet, the author cannot 'cross out' the possibility that the inscriptions were seen as decorative by the Aegeans, the way pseudo-Kufic script was seen in Italian Renaissance painting.

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177 according to Kavoulaki in Karetsou et al. 2000a: 220.
178 See [§ replicas, § imitations].
179 Phillips 2008: vol.1: 133-134. See e.g. [P114].
180 See the discussion for Khyan's lid [P163] and the Katsamba amphora [P114]. For instance, note that Phillips considers some inscribed scarabs (e.g. [P262]) as beads.
181 Phillips 2008, vol. 1: 129. These two examples are also seen as 'beads' by Phillips (ibid).
183 See chapter Seven.
184 Mark 2001: 3-8.
4. Egyptian standing hippopotamus deity and Minoan Genius

○ Introduction

The earliest iconography of the Genius (or Daemon) and that of the squatting monkey (see the relevant image) date to MM II.\textsuperscript{185} The Minoan Genius is compared to the iconographic image of the Egyptian standing hippopotamus deity, the last being represented as early as the late Old Kingdom on various artistic media.\textsuperscript{186} Taweret, the fertility deity, is depicted in Egypt with the head of a hippopotamus with leonine paws and feet, dorsal appendage and sometimes a crocodile on its back.\textsuperscript{187} Taweret incorporates qualities of other deities: Ipy, Reret, Ashaheru and Debiher, particularly in regard to its figure and apotropaic qualities.\textsuperscript{188} The following summarises the qualities of these deities:\textsuperscript{189}

- Taweret (Female): pregnancy, fertility, protection.

- Ipet (Female): pregnancy, maternity, protection, warmth, light in the underworld.

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\textsuperscript{185} [§ Genius, § Daemon]. The Prepalatial example of a scarab from Platanos (catalogue number [P476] in Phillips 2008) with the standing hippopotamus form should not be considered as the prototype for the later image of Minoan Genius. For the transformation of the Egyptian standing hippopotamus figure to Minoan Genius, and for a full list of artefacts, see Phillips 2008, vol. 1: 156-167 with further references. See also Zouzoula 2007: 59-61-101-103.

\textsuperscript{186} e.g. crude amulets, scarab faces, seals, the magic wand, etc. For a few examples of artistic media with the hippopotamus deity, and references, see Phillips 2008: vol. 1: 158-160.

\textsuperscript{187} See Wb 1, 330.5 for Taweret. NB: the name Taweret (\textit{t3-wrt} = the Great One) was only given to the deity in the New Kingdom (LÄ: VI.4: 495) - therefore one has to use this name with caution in comparison to the early iconography of Minoan Genius. For the Egyptian iconography of Taweret see Altenmüller 1965. For the relation of the Minoan Genius with Taweret see Weingarten 1991; Phillips 156-167 with plenty of examples from both Crete and Egypt. Coloured pictures of artefacts with the iconography of the Genius are provided in Karetsou et al. 2000a: 152-165. Taweret is discussed in Andrews 1994: chapter 3: 38-40, pl. 39 with regard to Amulets. An overview of the cultural aspects of the worship of Taweret is provided in Hart 1986: 155.

\textsuperscript{188} Ipy, Reret, Ashaheru and Debiher share their iconography and qualities with Taweret. For an extended overview of these deities and their iconography see Phillips 2008: vol. 1: 157-159); all somehow linked to fertility. The iconography of the Egyptian hippopotamus deity is sometimes complex, to the point that it is not clear which qualities of what deity each figure demonstrates, nor can one always be certain about its gender. Still, Ipy, Reret and Taweret are presumably female whereas knife bearers Ashaheru and maybe Debiher are male (Phillips 2008: vol. 1: 161).

• Reset (Female): (resembling a pig-like figure): pregnancy, maternity, motherhood, protection.

• Ashahery (Male) apotropaic, protection, linked to storm and rain.

• Debiner (Male / Female) protection, purification of water, childbirth.

Taweret's apotropaic character is pictorially reflected on the s3 sign of protection: the deity with its multiple hypostases protected women in pregnancy and childbirth. The standing hippopotamus figure is sometimes replaced with a leonine figure; it is also seen carrying a knife, a long string and the s3 sign. The development of iconography of the standing hippopotamus deity in Egypt assists researchers with dating the parallel pictorial development of the Genius in the Aegean.

The figure of the Minoan Daemon or Genius resembles a pig, donkey, lion or wasp. It is a mythological apotropaic Minoan deity or semi-deity, normally depicted holding a single-handed vessel in front, with both hands. The iconography of the Genius, which is usually demonstrated on seals, was first developed on Crete, to later extend to the islands, the Greek Mainland and Cyprus. It is seen in three examples in Protopalatial Crete and a few items in Neopalatial Crete, but becomes very popular in Final and End palatial Crete, numbering over twenty five examples on the island.

190 Phillips 2008: vol. 1: 157
191 e.g. the leonine figures on the magic wands' from twelfth dynasty onwards (Phillips 2008: vol. 1: 157).
193 On the iconography of the Minoan 'Genius' see Younger 1973 (LBA only); Weingarten 1991; 2000 and Phillips 2008: vol. 1: 156-167 which revise previous scholarship and provide new material. For pictorial examples in colour see Karetsou et al. 2000a: 152-165.
194 See Phillips 2008: vol. 1: 162-163 for examples of items with the iconography of the Genius and ibid: distribution maps 25, 26 for distribution on Crete during this period. See Phillips 2008: vol. 1: 163-165 for examples of items with the iconography of the Genius and ibid: distribution map 27 for their distribution on Crete during this period.
\textbf{Overview}

On Crete, the Minoan genius as a fantastic creature with ritual and apotropaic roles, manifests specific traits:\textsuperscript{195} scenes (such as the genius holding cultic vessels, pairs of genii, the genius in a landscape background, genii interacting with animals) are an exclusive Aegean (and in fact, Cretan-initiated) artistic tradition, with no Egyptian parallels. Whereas the Egyptians often show a preference for 3D media for the image (e.g. in pendants)\textsuperscript{196} the Minoans favour exclusively the 2D images (e.g. on seals).\textsuperscript{197} Also, the image on Crete is more 'interactive' compared to Egyptian parallels, i.e. the deity is frequently depicted in action, or with other creatures. The Minoan genius as a cult figure was first developed on Crete, and later became popular on the Greek Mainland, especially on sealstones.\textsuperscript{198}

\textbf{Time, space, context}

- Prepalatial: only one example from Crete: the image appears on the face of an Egyptian scarab [P476] (picture 123).\textsuperscript{199}

- Protopalatial: Four local examples: [P159], [P448], [P449], [P451], all seal impressions. First appearance of the Genius holding Schnabelkane (see e.g. [P448]): an entirely Minoan creation.

- Prepalatial and Protopalatial: all examples (above) are from central-eastern Crete.\textsuperscript{200}

- Neopalatial: 13 examples. The popularity of the image expanded towards western and eastern Crete at the time.\textsuperscript{201} Popular scenes include the Genius

\textsuperscript{196}Although Egyptian 2D images are not rare (e.g. on face seals). For a discussion of Egyptian media with the standing hippopotamus image see Phillips 2008, vol. 1: 158-159.
\textsuperscript{197}Notice that all examples on the spreadsheet: 'Crete (Phillips)' are 2D.
\textsuperscript{198}Rehak 1995: passim, with examples.
\textsuperscript{199}The information provided in this section is from Phillips 2008, vol 1: 162-165, and the observation of maps 25-27, unless otherwise specified.
\textsuperscript{201}Map 26 in Phillips 2008, vol. 1.
pouring liquids from vessels, hunting or standing next to objects, with bull, and
the Genius' elaborate monstrous appearance.  

- Final Palatial: the 'peak' of the Minoan Genius, numbering 24 examples, all
  local. The majority of examples come from Knossos, not unsurprisingly
  because it was the only palace 'left' at the time. The image takes an entirely
  indigenous character (dorsal appearance, wasp-like features, Schnabelkanne,
  action scenes, pouring water, bearer of dead animals, antithetic genii,
  processions of genii, 'hunting', ritual scenes) and it is far distant from Egyptian
  models.

- End palatial: decline of image. About a handful of examples. The image is
  simplified and schematic compared to the previous period.

- Post-palatial: decline: no examples.

The image is popular in urban environments. Many items come from unknown or
problematic contexts. However, when the context is known, it is usually elite and / or
ritual: palaces or villas with a cultic and administrative character. Some items with the
image are also found in tombs. Thus, the image was adopted in many aspects of
Minoan society and life.

- **Representative examples**

Scarab [P476] (picture 123) is linked by the present author to a fish dish from Tell
el-Dab'a [1004], made of clay (Marl C), also depicting the standing hippopotamus deity
along with a monkey or baboon, in a similar composition.

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204 e.g. [P64], [P129], [174], [P555]. Phillips 2008, vol. 1: 163-165.
206 Spreadsheet: 'Crete (Phillips)'.
207 Also discussed in the group 'Scarabs and scaraboids'.

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MM IIB seal impressions [P449] (pictures 72, 73), from the palace of Phaistos, room 25, depict an in-between figure, i.e. a creature with iconographic features of both the Egyptian hippopotamus deity and the Minoan Genius, manifesting a combination of Aegean and Egyptian iconographic elements into a unique creation. An examination of the context is necessary for researchers to establish an opinion about the artefact: room 25 was used as a storage area; it produced over 6,500 sealings. Fiandra studied the back impression of [P449] and suggested that the seal was most likely used to seal a pithos jar lid. Weingarten associated the sealing impression with an engraved gold ring. The seal may have belonged to an official.

The daemonic figure on the sealing impression [P449], apart from reflecting magical-religious elements, is also associated with the environment of the palace and whoever made use of room 25. The role of such a seal, judging from the finds in the room, is also likely to be administrative, since the seals were substantial tools of Minoan administration. If the administration of the Minoan palaces had indeed an international character (also accommodating interactions with Egypt), it would make perfect sense for seals and sealings to depict an iconography which was appreciated by a

208 Phillips 2008, vol. 2. 222 [449] describes the creature as an 'iconographic midway between the Egyptian hippopotamus deity and the Minoan Genius'. Weingarten argues that the Minoan proto-Genius (i.e. the early form of Genius) developed from the Egyptian standing hippopotamus deity in the thirteenth dynasty (Weingarten 1991; 2000). The MM IIB date is suggested by Phillips.

209 Phillips 2008, vol. 1. 221 describes the site and context. These seals were studied by Fiandra. According to Fiandra, the majority of these seals aimed to seal wooden door-handles or wooden chests (Fiandra 1968: pl. POB: 697/248).


211 Weingarten 1991: 7-9, 22, figs. 3A-b, pl. 3; 2000: 117.

212 Karetsou et al. 2000a: 155

213 Depending on the interpretation of the palace or palace compound and the function of the palace as an administrative and cultural centre (see above: chapter Three: 'Crete and the Aegean islands'), the seal that produced such a sealing may have even functioned as a symbol of power. This explains why many seals and sealings depicting the Minoan Daemon (in the various stages of the transformation from the Egyptian Taweret to the Minoan Genius) are discovered in Cretan 'palatial' environments. See, for example [P159], [P141]. For an overview of the cult of the Egyptian standing hippopotamus deity and the Minoan Genius, see Phillips 2008, vol. 1: 156-167, with further references. A mythical aspect may also be connected to the Minoan Genius, the exact nature of which is difficult to be specified due to lack of written sources.

214 Minoan seals were decorative, amuletic; they were even used as funerary goods. Their purpose was also practical. They were an essential part of the administrative system that controlled the circulation of goods and produce. They were used to impress a pattern onto lumps of clay on vessels, around the fastenings of doors, perhaps even on documents that have not survived nowadays. A seal impression could indicate identity of the owner, ownership or function as a trademark (for the Minoan seals see the latter study of Weingarten 2010).
wide Eastern Mediterranean group of people. Thus, the mingled image of the Egyptian standing hippopotamus deity / Minoan Genius would be considered appropriate for any official dealing with Egypt.

The image of the Minoan Genius or Daemon was popular on Crete. A similar iconographic amalgam of the Egyptian and Minoan iconography can be seen on the seal impression from the palace of Knossos, Hieroglyphic deposit [P159], of MM IIB- MM IIIA date. The find depicts a Genius holding a Schnabelkanne jug. Similar with [P449], the seal impression demonstrates magical / cultural beliefs and it is associated with the local administrative system. The discovery of other seal impressions bearing this particular iconography (the amalgamated figure of Egyptian hippopotamus deity / Minoan Genius) suggests that there probably was a Minoan workshop on Crete, specialising in the production of such seals. The craftsman of this workshop was obviously familiar with Egyptian prototypes of the standing hippopotamus deity, and he copied them either strictly, or loosely, adding local elements to make them more appealing to his community.

Another Minoan Egyptianising sealing, this time from the Room of the Seal Impressions at Knossos Palace [P141], depicts an ass-headed Daemon holding an elongated vessel. Again, the image may be linked to an administrative, cultural / religious or decorative function.

216 Note that the Hieroglyphic deposit received its name after the discovery of numerous artefacts inscribed with the 'Hieroglyphic B' script. It was probably used as a storage area (Reich 1970). For other Minoan Egyptianising or Egyptian artefacts from Knossos, and in particular, the palace area, see Phillips 2008, vol. 2: 76-159 [131-320].
217 Term [§ Schnabelkanne].
218 See [P449] above.
219 After all, many craftsmen had a rather cosmopolitical view (see § crafts-worker and traders' multiple careers!). A few seal impressions are provided in Karetsou et al. 2000a: 158 [136a] (M.M.).
220 The room contained a large number of seals with naturalistic scenes and animals, possibly fallen from an upper storey (Popham & Gill 1995: 15-16, pl. 1 [25]). The iconography of ass-headed Daemons are also popular in the Mycenaean world (see, for example, Karetsou et al. 2000a: 153, for the scene on a golden ring from Tiryns, in which a procession of ass-headed Daemons approaches a seated deity).
221 It may have functioned as a trademark or as a coat-of-arms, signature of the owner, or even as a 'plate-mark on a vessel'. See also entries [P449], [P159] above. For other Minoan Egyptianising or Egyptian artefacts from Knossos, and in particular, the palace area, see Phillips 2008, vol. 2: 76-159 [131-320]. The present author suggests that since the seal impression was discovered in the palace,
Two nodules with impressions from two different seals were found at Kato Zakros, Mansion A, room VII. One depicts a leonine-headed Genius being attacked by a bull in an allegorical scene [P112] (picture 19). House A combines domestic areas with shrines. The nodules were discovered in room VII, but they fell there from an upper-storey room, together with numerous other nodules. Phillips states that the upper-storey room with the nodules initially belonged to what was probably an archives room. She also notices that this is the only Neopalatial example of a Minoan Genius depicted together with another creature. The fact that the find with Egyptian iconographic influences derived from a) a domestic area, b) an area of cultural-religious importance and c) a villa (the house of an official?) indicates that exotica and items of foreign impact, were popular not only in the palaces, but also in elite households, i.e. in the medium to high socio-economic strata.

The triton rhyton from Malia [P372] (picture 79), with incised and relief decoration, is the only example of two Minoan 'Genii' interacting with each other; and the only depiction of a Genius on an item other than a seal or sealing. The triton might be simply decorative, used as a rhyton in ceremonial libations, or as a wind / musical instrument. Judging from the scene of the Daemons, the triton rhyton was probably associated with religious or even magical / medical practices. The elaborately made...

the image and seal is associated with whoever was in the palace and the function of this particular building (religious and or political administrative).

222 Hogarth 1902
224 The same applies to the cultural, symbolic, and other concepts accompanying these items, not only the items themselves. For the extent according to which elite households participated in Minoan administration, local and international trade and exchange, see Schoep 2002a; 2010, Rehak and Younger 2001: 394-402; Treuil et al 1996: 307-312, 324-325.
225 Phillips 2008, vol. 2: 186 [372]. For other Minoan Egyptianising or Egyptian artefacts from Malia, and in particular, the palace area, see Phillips 2008, vol. 2: 183-195 [369-391]. As mentioned earlier, there must have been a workshop on Crete which specialised in seals with the figure of the genii (see the discussion of [P449] and [P159].
226 This triton-shaped rhyton was suggested by Younger to be a possible wind instrument, a type of trumpet (Younger 1998: 35-36, 64 [20]). Martin Bonnmas and the EEF members, whom the author contacted on the 09.02.2010, mentioned that they are not aware of any tritons used as musical instruments in Egypt.
227 The Genii are depicted atop a shrine during the libation ceremonial (i.e. the Genii are shown as divine servants). The magical / medical association of this rhyton is based on the concept that the Genius, derived from the figure of the standing hippopotamus deity, may be seen as a deity linked to
A nodule with a seal impression from Hagia Triadha [P12] bears the figure of a Minoan Genius, according to Phillips, even though the iconographic detail is problematic.228 A seal [P88] (picture 18) with two Genii interacting with each other was also unearthed from the Necropolis of Kalyvia.229 Hood's excavations have produced a seal [P318], depicting a Genius and deer (scene very problematic), whereas the figure of the Genius is also seen on seal [P557] of unknown context.230 Also of unknown context is seal [P558] which bears a scene with a Minoan Genius facing left, standing next to a pole with lion skins.231

○ Conclusions

In 2008, Phillips argued that the gender of the Genius is either unclear or unstated.232 If so, the issue requires further investigation: a comparative analysis researching the reasons why the Minoans did not focus on the gender identity of the Genius.233 Yet, Hitchcock (2009) also examined the gender of the Minoan Genius and how the Daemon became gendered in the Aegean. Via the discussion of Aegean art, she interpreted the artistic traits of the Genius in iconography, to conclude that the Genius, as a metaphorical symbol of power and potency, represents a male gender.234 However, she correctly argued that the Genius may be better understood if examined as a 'third

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228 Phillips 2008, vol. 2:16 [12]. The author of this thesis has not handled the artefact; the iconography does not appear clear to her.

229 The necropolis is generally dated to LM IIIA period and is strongly connected to the Post-palatial habitation of nearby Phaistos. See Warren and Hankey 1989: 84.

230 For the depiction of a deer on another MM II seal see [P575] and (pictures 5-7).

231 A detailed description of the scene can be found in Phillips 2008: vol. 2: 267 [558].

232 Phillips 2008, vol. 1: 165-166 for the unstated gender of the Genius, compared to the gender image of the standing hippopotamus deity in Egypt (ibid: 165-159).

233 A comparative study of the unstated gender of the Genius and ape image might be appropriate.

234 For instance, the author suggested that the image of the 'Genius purring water on trees' manifests male fertility (Hitchcock 2009:101).
gender' in modern research.  

The studies of Phillips (2008) and Hitchcock (2009) are brief, and even though they are an excellent starting point, they do require an update. Therefore, the author concludes that modern research (2014) would benefit from a fresh, major study debating the relationship of the Minoan Genius to the Egyptian standing hippopotamus figure; particularly dealing extensively with aspects of gender in the transformation from the Egyptian standing hippopotamus image to the Minoan Genius.

In general, the author agrees with Phillips that the image on Crete is very distant to the Egyptian standing hippopotamus deity, with the latter becoming apparent especially from the end of the Neopalatial onwards. It seems that the Minoans had a blurred vision of the standing hippopotamus figure in Egypt, although they must have been aware of it, from imported media such as [P476] (picture 123). Nonetheless, similarly to Egypt, the apotropaic and ritual role of the figure is apparent on Crete, with emphasis placed on protection.

However, it is not surprising that the only imported Egyptian item from Crete is [P476] (picture 123). Unless other imported examples of the image have not yet been discovered, it is likely that on the island there was no demand for original items presenting the Egyptian Taweret and any associated deities. In fact, the lack of such a demand supports the theory of the individuality of the image in the Aegean.

As Phillips perceptively states, Minoan artisans were aware of, but did not adopt a

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235 Hitchcock 2009: 102. Hitchcock uses the modern analogy of the *hijra* in India in order to explain the 'third gender' traits of the Genius. *Hijras* are a 'third gender'; i.e. a sexually ambiguous category within Indian culture, playing a key role in Hindu religion (Nanda 1998). The author of this thesis finds that a 'third gender' approach of the Genius is indeed mandatory, considering the dual and fluid form of its sexual character.

236 Although individual studies do exist, such as Weingarten 1991. The members of the Ancient Egyptian Demonology Project ([http://www.demonthings.com/](http://www.demonthings.com/)) are planning to enrich the relevant bibliography in the future.

237 e.g. the deity holding the knife S3-sign (V17). Phillips 2008, vol. 1: 166-167


copy of the Egyptian image. They modified it to something more aesthetically familiar to them instead. Thus, the Minoan Genius was conceived on Crete, with very distant influences from Egypt and even other demonic creatures in the Near East. The Minoans, with a profound cultic background, where perfectly capable of producing the image of such a fantastic creature on their own, and it is very likely that the local oral tradition (fables, customs, etc), in combination with foreign traditions, 'shaped' this image and iconography over time.

The spreadsheet shows that on Crete, the Minoan Genius was mainly a 'phenomenon' of Knossos and its nearby regions. The majority of the examples come from Knossos.\(^{240}\) One wonders if the image has taken a special ritual value there (e.g. [P174]) which spread to the rest of the island over time, but without becoming standardised. Alternatively, the popularity of the image at Knossos was down to a local artistic tradition.\(^{241}\) Such a fashion could explain the strong relationship of the image with the elites, and it is hypothetically possible that the 'elitism' of the image made it a 'favourite' on the Greek Mainland. Lastly, the concentration of the examples at Knossos could reflect the presence of a workshop specialising in this image.

\(^{240}\) This is done by counting and observing the number of occurrences on the spreadsheet, but the same conclusion is also gathered from the study of Phillips 2008, vol 1: maps 25-27.

\(^{241}\) Or, even, the accumulation of the examples from Knossos and central Crete could be explained by the fact that these regions are better excavated compared to other Cretan regions.
5. Ape image

○ Introduction

The ape image was popular in Egypt and the most common ape species in art and texts were *cynocephalus* baboons and *cercopithecus* monkeys. The *cynocephalus* baboon is distinguished in three different varieties: *papio hamadryas*, *papio anubis* and *papio cynocephalus*. *Cynocephalus hamadryas* was associated with Thoth, moon god, god of knowledge and writing and protector of scribes. Culturally, the image of *Cynocephalus hamadryas* is usually represented seated or squatting with forepaws resting on its knees or raised to the front. *Cercopithecus* monkeys were seen as pets and as erotic symbols. Baboons and monkeys indubitably played an important role in Egyptian cult.

The ape image was also popular on Crete, even though they were not native to the

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242 Only *hamadryas* was native to Egypt; all other species were imported from the south (the Sudan and further). See Phillips 2008: vol. 1: 168-182 for the ape image. The image has also been examined by Vardier D'abbadie 1964; 1965; 1966; for the image in Egyptian scarabs see Hornung and Staehelin 1976.

243 Vardier D'abbadie 1964: 150-151. For the image of *cynocephalus* baboon, with plenty of Egyptian examples, see Phillips 2008: vol. 1: 168-171. For the cultural aspects of the worship of Thoth see Hart 1986: 156-159.

244 The image is developed from early dynastic onwards. See Andrews 1994: 27; Ziegler 1990: 65 with examples of artefacts.


246 For some titles of Thoth, with whom apes are related, see Wb 1, 138.1, Wb 2, 231.6, etc. The baboon is one of the four 'Sons of Horus', i.e. the canopic jar in which the Egyptian embalmers would place the lungs of the deceased during the process of mumification. Monkeys can be connected to the Egyptian fertility god Bes and baboons to god Babi (Phillips 2008: vol. 1: 170) and in Egyptian tomb wall-paintings they are depicted to amuse their owners as pets (see Vardier D'abbadie 1964: figs 3, 14-15, 18). For the apes / monkeys/ *cynocephali* as erotic symbols, and for the Egyptian ape-formed vessels for cosmetics, see Andrews 1994: 66-67, 245, pic. 157. For the Egyptian relief of apes and monkeys on vessels and other objects, see Janssen 1989: 21, pic. 13. The iconography of baboons, apes and *cynocephali* was particularly popular in Egypt and it was connected to cultural aspects of Thoth (especially the seated apes with the moon and the half-moon on their heads (Andrews 1994: 27). Thoth was also depicted as the sacred ibis. Similar figurines - again connected to the Egyptian god Thoth - appear to protect the Ancient Egyptian scribes, knowledge and writing (Ziegler 1990: 65; Hart 1986: 158). See also Andrews 1994: amulet in pl. 24a; 66-67 and pl. 71 (monkey / baboon amulets). Thoth is also associated with the underworld (Hart 1986: 158) and he is the one announcing to Osiris that the deceased is 'true of voice'. From the early dynastic years onwards the cult of Thoth is also linked to the solar cult (Hart 1986: 157).
Aegean where apes were certainly imported.  

The image appears on a variety of finds: frescoes, figurines, seals, pendants, beads, etc. There are numerous examples from the Prepalatial period. The image is seen developed in the Protopalatial period. In Neopalatial Crete, the two dimensional ape image is most abundant in LM I and apes are shown interacting with other animals. The numbers of Cretan examples with the ape image drop in Final and End Palatial Period.

○ Overview

The Egyptians distinguished between baboons and monkeys. Such a distinction did not often apply in the Aegean. The image first appears in EM IIA (-IIB?) and vanishes before Post Palatial. From LM IB onwards there is a decline in the religious incentive of depicting apes.

The majority of examples from the Aegean are local, apart from the following, which are all imported: [P476], [P19], [P488], [P245], [P256]. However, the Egyptian provenance of [P19], [P488], [P245] and [P562] is rejected, uncertain or debatable - yet, if not Egyptian, these are at least Egyptianising. There is a concentration of examples on Crete but the image is also known in the rest of the Aegean. e.g. from the Aigina treasure [P578], [P579], [P580], [P581] and [P582] and of course, the Theran wall-painting. The image mainly appears in the form of pendants, figurines and seal faces. Popular scenes include apes with / as religious symbols, squatting ape figures and

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248 For a list of these finds grouped into different chronological periods see Phillips 2008: vol. 1: 174-180. Warren (1995) discusses monkeys (and other animals) imported to the Aegean. For coloured pictorial examples see Karetsou et al. 2000a: 169-177.
254 The earliest piece is a seal from Mochlos: Phillips 2008: vol. 2: 201 [402].
257 e.g. Marinatos, N. 1987 for examples, and (picture 108).
apes antithetically placed, back to back or face to face.\textsuperscript{258} Compared to Crete, on the Mainland, the image was not that popular at the time, but it became more popular in the Geometric period.\textsuperscript{259}

\begin{itemize}
  \item \textit{Time, space, context}
  \item Prepalatial and Protopalatial transitional:\textsuperscript{260} These periods number about 20 examples but around a quarter of them are problematic in iconography, date or context. Scarab \textbf{[P476]} (\textit{picture 123}) from Platanos is the only imported piece from Egypt. On the face, it shows a squatting ape, interacting with the standing hippopotamus deity. The squatting position is popular, so are pairs of apes, and the three-dimensional image appears in the form of pendants, amulets and seal shapes.\textsuperscript{261} It is possible that at least one workshop producing these items operated in south-central Crete (at Messara, Archanes or Platanos).\textsuperscript{262} All examples come from burial contexts.
  \item Protopalatial and Proto/Neopalatial transitional:\textsuperscript{263} these are represented from about a dozen examples. Imported are items \textbf{[P476]}, \textbf{[P562]} (with problematic provenance);\textsuperscript{264} and \textbf{[P439]}, which is Levantine. The rest are local. Again, there is a concentration in the Messara region, but also the North central coast. Five additional examples are part of the Aigina treasure.\textsuperscript{265}
  \item Neopalatial: The image on Crete is artistically standardised. Phillips provides 18 examples, with an accumulation (of 5 items) at Knossos, although 4 items come
\end{itemize}

\textsuperscript{258} e.g. \textbf{[P10]}, \textbf{[P456]}. Phillips 2008, vol. 1: 174-180 with more examples.
\textsuperscript{259} Greenlaw 2011: chapter 3, with a comparison to the rest of the Aegean. Langdom 1990 for the Geometric image.
\textsuperscript{261} e.g. \textbf{[P30]}, \textbf{[P511]}.
\textsuperscript{262} This is because the author notices that a dozen examples come from this region (see maps 28 and 29 in Phillips 2008, vol. 1).
\textsuperscript{263} map 29 in Phillips 2008, vol. 1
\textsuperscript{264} \textbf{[P476]} probably dates to the Prepalatial / Protopalatial transitional, that is why it was mentioned in the previous paragraph. See the entries on the spreadsheet: 'Crete (Phillips)'.
\textsuperscript{265} \textbf{[P578]}, \textbf{[P579]}, \textbf{[P580]}, \textbf{[P581]}, \textbf{[P582]} on the spreadsheet: 'off-island (Phillips)'.

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from south-central Crete, and regions by Messara bay. The single squatting figure (two-dimensional) is frequent (e.g. [P11]). Apes are often shown together with other objects or animals (e.g. [P127B], [P111]). Some scenes are ritual and it is obvious from the iconography that the animal is (demi-)deified. The imported examples are restricted to two; [P19] and [P488]. Although Egyptanising, their Egyptian provenance is debatable.

- Final palatial: Fewer examples (only 3) compared to the Neopalatial period. Characteristic examples are a couple of 'beads' from Isopata [P245], [P256], which are imported but not necessarily Egyptian; and a ring [P84] showing an ape worshipping a female deity.

- End palatial: Only one example, a seal from Palaikastro, where a tailless squatting ape is shown interacting with genii. The ape is still seen as a semi-divine figure.

The spreadsheet, which includes a good representative number of examples depicting non-human primates, demonstrates that items with the ape image often come from domestic and ceremonial contexts, usually of elite character, and from some elite burials. In general, the ape image is associated with archaeological contexts linked to the local upper-classes, but not necessarily within the palace.

- **Representative examples**

The iconography of monkeys in fresco painting, in typically Nilotic or other naturalistic backgrounds, was particularly prominent in the Aegean; e.g. [P180] (pictures 107, 108). The author of this thesis has already discussed entry [P476] above, with the

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266 map 30 in Phillips 2008, vol. 1
267 e.g. [P111], [P142], [P495], [P161], [P180].
268 They could be Levantine, rather than Egyptian. See the entries on the spreadsheet: 'Crete (Phillips)'.
269 map 31 in Phillips 2008, vol. 1
270 map 31 in Phillips 2008, vol. 1
271 This example is Phillips 2008: vol. 2: 214 [435].
272 Such is the wall painting with blue monkeys and birds from Knossos (MM III-LM IA). See Karetsou et al. 2000a: 298 [293] (E.M.): for a coloured picture of this fresco and further references. Moreover, the apes fresco from the Room of the Saffron Gatherer (palace of Knossos) in Phillips 2008: vol. 2:
group of scarabs. The ape figurine [P439] from Palaikastro, of problematic date and context, is said by Phillips to be Egyptian. The cultural identity of the statuette on Crete is not safely established. It may be seen as a grave good (?), erotic, cosmetic, amuletic item, associated with the local rituals and culture; as a practical item (pendant, hairpin) or simply as a toy or a decorative ornament.

The Minoan chalcedony sealstone [P456] from Phaistos depicts a kantharos framed with two cynocephali [§ kantharos]. The item was probably used as part of jewellery or was amuletic. Another sealstone from Prassas, [P495], made of carnelian, depicts a man next to a cercopithecus ape, mentioned in the Karetsou and Phillips catalogue to possibly demonstrate an act of animal worship. The present author is unsure about the animal worship theory (certain knowledge about what the face demonstrates is impossible), and suggests instead that in this example, one sees a depiction of a Minoan associating with a pet cercopithecus, an animal imported to the Aegean.
The seal impression from Haghia Triadha [P10] (pictures 68, 69) demonstrates two baboons or monkeys in profile face-en-face; between them an altar. The seal impression was discovered in an archive storage area. The seal which created the impression played either an administrative or cult role, or both. Once more, in this example, the image of the ape is correlated with the elite environment; nevertheless, any cultural symbolism of the scene – though enigmatic – should not be underestimated.

The seal impression from the Palace of Knossos [P142] has been described as a possible heirloom in its context. The posture of an enigmatic figure on the seal impression may recall that of apes worshipping Thoth, but the scene is badly damaged and so, its cult background and symbolism are not at all clear.

Some Minoan statuettes and pendants receive artistic influence from similar items in Egypt. The two-seated cercopithecus ape pendant or finial [P459] from Platanos is that the cercopithecus is a common pet in Egypt. In the picture of the item, in Karetsou et al. (2000a: 176 [160] (M.K.) one can clearly see a leash / string between the waist of the man and the waist of the animal. If the example demonstrates a pet, which is in fact imported to the Aegean (cercopithecus are not native to Crete but they are plentiful in North Africa), this item confirms Warren (1995), who mentions imports of live animals to the Aegean. The imports of exotic animals (as luxury 'items') to the Aegean can be associated with the elite and / or the market.

The seal would be grouped with the [§ artefacts of foreign inspiration]. An explanation: the scene is typically Minoan with the exception of the cynocephali; therefore the item may be considered of Egyptian inspiration. A similar scene is depicted on the sealstone [P456].

The excavation at 'Court Eleven', where this seal impression was unearthed, produced a large number of finds, among them fresco fragments and about 180 nodules and at least 11 Linear A tablets. Watrous and Driessen & MacDonald assume that all nodules and tablets came from an upper storey which was used as an archives storage area (Watrous 1984: 125-126, 128; and Driessen & MacDonald 1997: 203). Similarly, in the nearby Room 54, about 300 further clay nodules were discovered in a built-in gypsum chest, which probably held documents of some kind (these were published by Halbherr in 1903).

For other Minoan Egyptianising or Egyptian artefacts from Haghia Triadha see Phillips 2008, vol. 2: 12-26 [4-37]. The cultural background of the scene is certain, since an altar is shown; but the connection of the figures with any indigenous or foreign deity is open to question.

Hallager 1996; Phillips 2008. i.e. the artefact dates older than its context. See also [§ antiques].

As suggested by Evans (PM II, 763, PIC. 491). Apes with raised hands (worshipping) are portrayed in various media, such as coffin lids, wall paintings and architectural scenes (e.g. the baboons' worshipping scene from Medinet Habu), ornaments, pendants, amulets and funerary items (e.g. Tutankhamun's baboons solar barque). For other Minoan Egyptianising or Egyptian artefacts from Knossos, and in particular, the palace area, see Phillips 2008, vol. 2: 76-159 [131-320]. The item is associated with the function of the room from which it was derived; and, evidently, the function of the palace itself, as a cultural and administrative centre.

See Vardier D'abbadie 1964; 1965; 1966; also, an overview of the ape image in Egypt (in various
produced locally but it may have received Egyptian artistic influence. It was derived from the upper strata of the Tholos Tomb A, from a context that produced a great number and variety of grave goods; among them, gold ornaments. The pendant / finial presumably belonged to a reasonably wealthy owner. Moreover, Tholos tomb A produced other items, especially jars, which are Minoan but that have received Egyptian influence. The elite contribution in M-E relations is confirmed by the Minoan Egyptianising grave goods of this tomb.

Another theriomorphic (baboon) pendant from Haghia Triadha [P29] was recovered near the Tholos centre of tomb A. This tomb provided a variety of grave goods, among them some precious commodities. However, the burial chamber, from which the pendant derived, produced fewer grave goods, and less luxurious ones. Some of these artefacts were genuinely Egyptian or inspired by Egyptian art; such as a cynocephalus seal from the same context and some EM III / MM I vessels. Egyptianising and genuine Egyptian exotica were frequently used as funerary goods on Crete, particularly in tombs of medium and high social class.

The artistic iconography of the ape is also seen in the squatting monkey vase or 'stand' [P19] (pictures 45-50) from Haghia Triadha. There is an ongoing debate about the media), with further references and sources for Egyptian artistic examples, is provided in Phillips 2008: vol. 1: 168-174. For a few examples of Egyptian statuettes and other items of the ape theme, from the Predynastic Period onwards, see Brovarski et al. 1982: 198 [231]; Adams 1974: pl. 19 [128]; Erman 1909: 12, pic. 9; Andrews 1994: 34, pl. 27b; 67, pl. 71a, b, d. The Egyptian influence is seen on the theme (i.e. the popular 'ape theme' in Egypt), the squatting position of the forms and the back-to-back arrangement of the figures. A similar, very schematic, double figurine of apes has been unearthed from Hagios Charalambos in the 2002-3 expedition. It is now stored in the Hagios Nikolaos Museum: find no. 13.910 (see Betancourt 2011: 2, fig. 2).

291 It is considered Minoan, Egyptianising Levantine or Egyptian. For the tomb, see also catalogue entries [P18], [P29] and the relevant notes. The item is called 'pot or vase' in the Karetsou and Phillips catalogues, but in reality there is only a hollow in the middle.
origin of this vase (Egyptian, Egyptianising Minoan, or Egyptianising Levantine). The item may also be an heirloom in its context.

Two amulets / pendants / beads from the Royal tomb of Isopata resemble squatting monkeys. These items were gathered from a unique site. The Isopata Royal Tomb, though heavily looted, has produced archaeological material dating from LM I to LM IIIA1. Phillips describes this tomb as the largest source of Egyptian artefacts on Crete: 'There seems to have been more Egyptian material than Minoan, but this does not mean to suggest that the owner was an Egyptian or an Egyptophile.' MacGillivray however, contra Phillips, has even suggested that the tomb owner belonged to a Mycenaean 'Keftiu' who dealt with Mencheperreseneb. Certainly, the owner was wealthy and fond of Egyptian commodities, among them, antiques. A LM I lentoid seal (pictures 13, 14) made of carnelian, of unknown context, demonstrates a seated cercopithecus. A LM I roundel with seal impression from Karte street, Chania, (picture 26) also demonstrates a cercopithecus.

○ Conclusions

The author observes that most modern academic publications do not specify the exact species of ancient non-human primates in iconography. Greenlaw has occasionally

292 For various suggestions of provenance see Phillips 2008, vol. 2: 20 [19] and the description provided there. The date and context are also problematic. Phillips (2008: vol. 2: 21) states that the calcite material, from which the item is made, is not Egyptian; therefore the item may have been produced in the Levant or Crete [§ locally produced, of foreign material]. Yet, the inspiration is clearly Egyptian, which means that the item is [§ Egyptianising] and an [§ object of foreign (Egyptian) inspiration]. Of course, if the material, from which the item is made, is not originally Egyptian, there is also the possibility that the material was exported to Egypt and the item was produced there, according to local standards.

293 If the item imitates Egyptian prototypes, then it probably imitates sixth dynasty vessels. An example is Metropolitan Museum 1999: 446, no 178.

294 see Evans 1903-04: 5-6 for the tomb, and Driessen & MacDonald 1997: 170, for comparanda of stone vessels with LM I material elsewhere; on Crete, in Egypt and Mycenae. For other Minoan Egyptianising or Egyptian artefacts from Isopata see Phillips 2008, vol. 2: 128-135 [241-259].


296 See MacGillivray 2009: 166-168, and especially 169. See also chapter Seven: 'Possible Aegean - Hyksos / Aegaean - Egyptian state-to-state negotiations'. For Mencheperreseneb see chapter Four.

297 Most of the vessels discovered in the tomb were of the 'closed' type, i.e. they were containers containing liquids (Phillips 2008: vol. 1: 129).


299 Phillips 2008: vol. 2: 73 [126]
attempted to distinguish among such species, seen on particular finds from the Aegean, but the author is not convinced that such a project is even possible: the state of preservation of many of the archaeological finds, and the fluid, somehow generalised or abstract Minoan representations of non-human primates, do not allow for an exact identification of the species. After all, from the study of the artefacts, the author understands that it is likely that Minoan artisans did not wish to represent exact species, nor did they have exact species in mind. Few, if any, artists and beholders were familiar with exactly how these species looked. Moreover, many of the media bearing the ape image are small (e.g. seals), to the point that presenting the animal in detail would be problematic, impractical or even unnecessary.

There is a possibility that live animals were imported to Crete, but only as an elite phenomenon. Phillips considers the notion that the craftsmen had personally seen these animals, as some degree of accuracy is occasionally seen. Alternatively, their representation could be the result of copy-books. It is likely that some Minoans travelling to Egypt had seen them, gone back to the Aegean and described them. In fact, a combination of the above scenaria would appear more likely.

The concentration of examples in certain areas of the island (see above) may be linked to local workshops specialising in the production and circulation of the image. To the author, a localised ritual connection or an artistic fashion, or even the fact that certain areas of the island are better excavated than others, might partially explain the concentration of examples.

The cultural / ritual association of the ape image in the Aegean is dominant already from the Protopalatial onwards. Yet, the exact ritual symbolism of the animal is unknown. Phillips notices that contrary to the Egyptians, the Aegeans preferred the monkey over

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300 Greenlaw 2008: 42-57
301 e.g. see the poor condition of [P10] in (picture 69).
302 See [P132] in (picture 25).
303 Aegean travelling artisans who visited Egypt could have encountered the animals.
304 Warren 1995. See the 'Introduction' of this group.
305 Phillips 2008, vol 1: 180

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the baboon as a ritual cultic symbol.\textsuperscript{306} It appears to the author that this preference may be related to what species were imported as live animals to Crete: maybe the monkeys were preferred over the baboons, because they were more easily accessible, in greater demand, or easier and more convenient to transport. Yet, as Phillips has indicated, whereas on Crete monkeys were often functioned as an intermediary with the divine, on the Mainland, the animal's cultic association was restricted compared to Crete and Thera.\textsuperscript{307}
6. Cat image

○ Introduction

In Egypt native cats are grouped into two species: felis silvestris libyca and felis saus. Felis serval was imported from Nubia. Cats were usually portrayed in tombs, in the 'hunting in the march' or 'fowling' scenes, from early dynastic onwards, with a climax of the cat iconography in the early New Kingdom (pictures 109, 114, 116). The cat was domesticated in Egypt in dynasty twelve, and cats as pets were often depicted in early New Kingdom tombs. Cat beads / scaraboids / pendants / figurines, etc. became popular during the Second Intermediate Period and especially in the New Kingdom. Felines played a considerable role in Egyptian cult as demonstrated in the Book of the Dead. In the Aegean, the cat image was also popular. A dozen or so examples are recorded in the Prepalatial and Protopalatial periods and a dozen examples are recorded in the Neopalatial period. Examples include seated cat ornaments on clay pots to fresco themes and cat heads. This image may be considered a koiné, but Phillips finds that

308 The most generic recent study for the Egyptian cat is Malek 1993. See also Phillips 2008; vol. 1: 163 for a brief description of this species and for further bibliography about the Egyptian cat image. The miw sign (E13 in Gardiner) was used as a hieroglyphic sign and in personal names (see Phillips 2008: vol. 1: 196 for examples).
309 e.g. cat fowling birds in the tomb of Ti (fifth dynasty) (picture 116) (Wild 1953: pl. LXXXII-LXXXIII, CXV-CXVI and CXIX); fowling cat on a papyrus stem in the twelfth dynasty of Khnumhotep III at Beni Hasan (De Morant 1937: 31, fig. 1). Fowling cats become very popular in tomb frescoes from Thutmose III onwards. See Malek 1993: 65-66 for a list of New Kingdom elite Theban tombs depicting fowling cats. In general, felis silvestris libyca is the most common species depicted.
310 The cat-under-chair image became popular in the New Kingdom. See Porter and Moss 1960: 1.1. 467 [19a-cats] for examples such as TT 131, Amenuser.
312 Setting aside the goddess of Bubastis (twenty-second dynasty) (term 'Bastet' in LÄ Bd 1), the great cat is associated with Ra and Atum as early as the Middle Kingdom: see, for example, the reference to miw 3 (the Great Cat= Ra) in the Coffin Texts (Allan 1974: 30, spell 17a: 815); also, the generic association of the cat with Ra in the Coffin Texts (see e.g. Faulkner 1973-1978: III, 141, spell. 1063). For the cat association with Atum see Allan 1974: 217, spell 167: a. 82 and 127, spell 145: m. 8. Cats are sometimes depicted holding a knife and they appear on 'magic wands' from the twelfth dynasty onwards, and particularly in the New Kingdom (see Altenmüller 1986: 6-7 for a few examples).
313 See Phillips 2008: vol. 1: 193-206 for the cat image. See also the comparative study conducted by Morgan 1988: 41-44; Karetsou et al. 2000a: 177-179 with coloured pictorial examples of the cat image from Crete. Morgan 2004 examines the larger felines. In the Aegean, the cat species is different to that of Egypt, but one of the main cat varieties is felis silvestris silvestris. For the cat varieties in the Aegean see Phillips 2008: vol. 1: 199. An example is [P575] (pictures 5-7).
314 See Phillips 2008: vol. 1: 200-203 with examples and distribution maps 33-35 for the distribution of the cat image on Crete over the course of time. See also [P381], [P77], [P9], [P63], [P107], [P525].
the image of the cat in the Aegean and the one in Egypt must have developed separately.

○ **Overview**

As Phillips states, there are three variations of the cat image on Crete: the seated, 'domestic' type, the fowling, 'wild' type and the 'cultic' type (e.g. [P379-381], [P575] and [P441] respectively). The 'domestic' image shows the cat seated and 'tame', often in a naturalistic background. In the 'wild' or 'marsh' type, the cat fowls its prey, whereas the 'cultic' type depicts only the head of the animal. Similar representations appear in the rest of the Aegean, from seals to wall-paintings. The present author observes that on Crete only, the cat image numbers 33 examples, with most items (16) dating to the Prepalatial and Protopalatial Period, all from eastern and central Crete, since this image never becomes popular in western Crete. Over time, approximately 8 items are of the seated style; the head style is represented by 16 pieces and the fowling 'marsh' style is represented by 7 pieces. All items from Crete bearing the cat image are indigenous. It is in fact surprising that no imported pieces have been discovered since 2008, when Phillips published her work.

○ **Time, space, context**

- Prepalatial and Protopalatial: The earliest representation of the cat image on Crete (seal with cat's head (?) [P573], from unknown site and context) stylistically dates to the EM III – MM IA. The cat image was very popular in Prepalatial and Protopalatial Crete (16 pieces), particularly in the east of the island, and the most popular types of the era are the seated cat (with 7-8 examples) and the cat's head (with 7 examples). The first 'marsh' type could

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The cat was also domesticated on Crete (Phillips 2008: vol. 1: 2002-203).


317 e.g. the Libya fresco' from Thera (picture 106).

318 See Phillips 2008: vol. 1: distribution maps 33-35; this is assuming that any items bearing the cat image and deriving from 'unknown contexts' are not from Western Crete.

319 e.g. [P70], [P380], [P414].

320 Phillips 2008: vol. 1: distribution map 33 and pages 199-201. Some cat's head examples are [P442], [P574], [P377].
be represented by a single example: seal [P575], of unknown site and context. No piece comes from the Knossos region at the time. On the contrary, the opinion of the author is that a workshop specialising in the cat image might be operating at Malia in the Protopalatial period, considering that 5 pieces come from there. 321

- Neopalatial: the present author notices that the cat image remains popular on eastern Crete (with 13 pieces all over the island) 322 and its fashion spreads towards central Crete (6 items came from central Crete). The head type is still seen (9 examples), 323 but the seated type declines (1 example: [P157]), and the marsh 'fowling' type has started becoming fashionable (1 or 2 examples: [P9] and possibly [P63]). 324

- Final Palatial: Only 3-4 examples date to the Final Palatial Crete: all are marsh scenes on seals from central Crete, 325 whereas the seated and the head type have disappeared and the cat image became non-existent on eastern Crete.

- No example exist of the image in End Palatial and Post Palatial Crete. 326

Context-wise, the cat image is almost never funerary. After doing a search on the spreadsheet, 327 it can be seen that indeed, the majority of artistic media bearing the cat image are correlated to ceremonial and elite environments. 328 It seems to the author that the Cretans, for some reason (maybe a local tradition or superstition?) had not correlated the cat with afterlife – contrary to the Egyptians. 329

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321 These are [P377], [P379], [P380], [P381], [P383].
322 e.g. [P438], [P518], [P157].
323 e.g. [P517], [P518].
325 [P319], [P572], [P530] and possibly [P63]
327 The vast majority of examples manifesting the cat image are included on the spreadsheet.
328 e.g. [P493] and [P496]: ceremonial, and [P9]: elite / villa.
329 See the following page for a discussion.
Representative examples

The cat image is illustrated on the model of the feline head from Gournia [P77] (picture 74, 75), made on Crete. The artefact was unearthed in a domestic context. The discovery of similar models in Eastern Crete indicates that these were products of the same workshop, which probably flourished during the LMI period. The use of these items is problematic. They functioned as anathemata, or they were placed in houses to protect the residents from unwanted mice and snakes. Artefacts with the cat image had a similar use in Egypt (i.e. a votive and apotropaic function). An example similar to [P77], from Palaikastro, was used as a rhyton.

A MM II workshop in Malia Quarter Mu, produced a number of clay vessels with appliqué detail. Three of these vessels, among them entry [P381], demonstrate the

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330 The item is not Egyptianising, since, the iconography of the cat in Egypt and in the Aegean developed independently (according to Phillips 2010). The current author agrees with this statement: for the reasons why see chapter Seven in the main corpus of the thesis.
331 Area F21 at Gournia is a large open area and it is probably associated with two houses nearby (Karetsou et al. 2000a: 50; Phillips 2008: vol. 2: 50). It may have been apotropaic, i.e. it protected the house. See note 335. For other Minoan Egyptianising or Egyptian artefacts from Gournia see Phillips 2008, vol. 2: 49-51 [76-78].
332 See also Phillips 1991: 803, [408] for the relevant mould discovered at Siteia. For comparanda see entry [P77]. See also § crafts-worker, § traders' multiple careers.
333 § anathema
334 As suggested by Boyd-Hawes 1908.
335 For example, a nineteenth dynasty stela from Deir el-Medina (Turin Museum, Former Drovetti's collection cat. 1600 = CGT 50053) is dedicated to the 'Great Cat' (Baster, Mut, Sekhmet, Hathor, Ma fileId, Tefnut, Neith? or, most likely, Ra, since Ra is mentioned as mīw 3 in the Book of the Dead). It depicts two cats in profile, facing each other and it bears the offering formula for the 'beautiful and gracious cat'. A similar stela, again from Deir el-Medina, is seen in the Ashmolean museum, Oxford.1961.232, former Armytage collection. The last stela is dedicated to Ra, according to its formula (for these stelae see Te Velde 1982). The cat is also depicted on the Egyptian 'magic wands' (see Altenmüller 1965; 1986: 6-7). It is also seen on 'magic rods' (for 'image rods' see Bourriau 1988: 115-116 [104.b]), occasionally with the s3-sign (protection). Phillips (2008, vol. 2: 198) also mentions that the cat protected homes and storerooms in Egypt. See also Te Velde 1982: 133 for the image of 'snake-killing' cat.
336 This is the rhyton in Karetsou et al. 2000a: 177 [163] (T.M.) and [P431].
337 The context of these items is Domestic-Building D, similarly to [K33]. This context is associated with a storage-workshop area (Phillips 200, vol. 2: 190) and the items derived from this context were most likely manufactured in that workshop. Vessel shown in entry [P381], another cup with appliqué detail of a cat and naturalistic scenes (Herakleion Museum Π 19815 / Karetsou et al. 2000a: 56 [30] (J.-C.P.) / [P380]), a clay bridge-spouted jug, also with appliqué detail of cat and naturalistic motifs (Herakleion Museum Π 19814 / Karetsou et al. 2000a: 57 [32] (J.-C.P.) / [P379]), and a bridge-spouted jar with appliqué detail of a pregnant woman, which has received foreign - but not for a fact, Egyptian- influences (Herakleion Museum Π 19817 / Karetsou et al. 2000a: 58 [35] (J.-C.P.) / [P378], all derived from the same MM II context. All items were made locally.
appliqué of a cat in a naturalistic background in a manner that recalls Egyptian iconography. Still, the image on these vessels did not derive directly from Egyptian prototypes.

Certainly, one is tempted to make comparisons with Egypt, where cats are frequently depicted in iconography due to their religious symbolism. In Egyptian iconography, felines are depicted hunting various animals, mainly birds, in Nilotic backgrounds (pictures 109, 114, 116). Moreover, the 'cat stalking a bird' (or, otherwise called 'fowling cat image') theme is very popular in tomb iconography. The popularity of the cat image in Egypt is explicit in various artistic media.

The cat theme is also popular in Cretan and Theran painting. A scene with cats hunting birds can be seen at Hagia Triadha [P9] (picture 113); also, in a fresco fragment

338. The pose and attitude of the cat and the multiple branching of the tree behind the animal, all recall the 'cat stalking a bird' Egyptian image. See also 'Nilotic Scenes' in chapter Three: 'Egypt to the Aegean', where Egyptian examples are provided.
341. e.g. the famous marsh hunting scene from the tomb of Nebamun (eighteenth dynasty), which depicts the tomb owner and his wife and child in a papyrus skiff, fishing and fowling in the marshes. A cat sits at the prow of the boat in an impossible position, balanced on two curved papyrus stalks with two birds gripped in its claws and another in its teeth. A colour picture of this scene may be found in Robins 2008: 22, fig. 11. See also Parkinson 2008 for the painted tomb chapel of Nebamun and the scene with the hunt. The cat scene from Hagia Triadha is a better 'match' to the scene in the Theban tomb-chapel of Menna (TT 69). Its execution is a bit more 'sketchy' compared to the scene in the tomb of Nebamun, although the birds are depicted in greater detail. It shows a flock of Pintail ducks, flying up from their nests and being hit by Menna's throwsticks. One duck which is sitting among the nests is being stalked by a (too small) striped cat, that lifts its paw in anticipation. The sneaking lean Cretan cat is certainly more vivacious than the somewhat 'static' Egyptian one. See Houlihan 1996: pl. XXIV, XXIII.
342. See chapter Three: 'Egypt to the Aegean' for an overview of the cat image and further bibliography. For examples of Egyptian iconography see chapter Three. Malek 1993: 65-66 provides a list of all the Egyptian 'fowling' tomb scenes where a cat is interacting with birds and occasionally, other animals (for the tombs see Porter and Moss 1960: 1:1:454). Some further examples are provided here: some faïence plaques from Sinai show the felis serval or libica type of cat (see Petrie 1906: fig. 154). See also the scene with the cat on the boat of the deceased, from the tomb of Simut (TT A.24) in Malek 1993: 65, fig. 41; the civet-cat giving birth from the fifth dynasty tomb of Idut at Saqqara (Porter and Moss 1960: III.2: 619) and the cat-under-chair New Kingdom theme, as seen in the tomb of Ipuy (TT 217) (Te Velde 1982: 131, 136).
from Knossos. The leopards from the 'Libya fresco' from Thera (picture 106) recall the Haghia Triadha 'cat hunting scene'.

On Crete, the cat image also appears on seals. For example, a seal from Arkades [P63] depicts a cat stalking a waterfowl. Another seal with a cat scene was found during Hood's excavations at Knossos [P319]. The seal [P525], of unknown context, depicts a seated cat in natural background, as in [P381]. A three-faced MM II seal of unknown provenance [P575] (pictures 5-7), made of jasper, demonstrates the image of the cat on one face, and the images of an agrimi and deer on the other two.

○ Conclusions

As Phillips correctly points out, the cat image can be considered a koiné, and was developed independently in Egypt and the Aegean. After all, cats existed on Crete and were probably domesticated, and the cat image had a long history on the island; the earliest known example being the previously-mentioned small zoomorphic seal in the form of a feline's head [P573] of unknown context. Eventually, the two images were mixed together and knowledge and style were 'recycled'. Generally, a study of the relevant finds makes the present author conclude that the traits and behaviour of the animal were well observed and recorded by Aegean craftsmen, and especially wall-painters. Live animals were transported between Egypt and the Aegean. The Aegeans were influenced by the Egyptian cat image with regards to their murals, and often, the image in the murals appeared simplified and less complex in 3-dimensional

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344 For the Knossos fresco fragment see Phillips 2008, vol. 2: 96-97 [162], with further references and comparanda.
345 For the micrographic wall-painting of the fleet from Thera see Negbi 1994 and [K117].
348 See the 'Time, space, context' of this group.
349 See e.g. [P9]. In agreement with Phillips, who argues that travelling wall-painters had seen cats in action first hand (2008: vol. 1: 205-206).
350 Warren 1995: 11-12. For instance, cats were needed on the ships, for their companionship and mousing duties.
351 See e.g. [P9].

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objects. Yet, there was clearly no market demand for imported items with the image – not a single piece from Crete is foreign. The frequency of the cat image in ceremonial contexts, and the abundance of examples of the 'cultic' type on the island, indicate that the animal had received a ritual role in Crete. After all, a cat is placed on the head of the statuette of the younger snake goddess (picture 80).

352 e.g. [P525], [P572].
353 See the 'Introduction' and the 'Time, space, context' of this group.
7. Crocodile image

○ Introduction

Limited items displaying the crocodile image have been unearthed in the Aegean. Most representations date the End Palatial Period, whereas only two examples date from Prepalatial to Final Palatial. The crocodile image is not indigenous to the Aegean, but rather, imported from Egypt. In Egypt, such image can be seen in amulets, scarabs, magic wands and other artefacts. The crocodile was especially linked to the cult of Sobek.

In literature, the crocodile image has been examined together with the Babylonian dragon.

○ Overview

The image numbers 5 examples from Crete and the majority date to LM IIIA/B and Mycenaean Crete. All 5 examples are considered local by Phillips. On Crete the image presents typical Minoan traits: regardant head and spiralled and interning tail. There are similar images on the Greek Mainland.

Phillips states that all the items from Crete, with crocodile images, may be the result of

354 A seal from Tsoutsouros depicts the crocodile on its face (see Phillips 2008, vol. 2: 253 [514] and [P514] in this study). A very badly preserved ivory comb handle from Archanes (item in entry [P62]) also demonstrates confronted crocodiles with regardant heads.
356 See, for example, the recumbent crocodile glazed steatite amulet in Bourriau 1988: 156 [176a] and another crocodile amulet in Andrews 10, fig. 4d. A Badari scarab demonstrates a crocodile representation on its face (see Tufnell 1984: II: pl. XXXIX: 2594). One can also see the crocodile image on a thirteenth dynasty 'magic wand' (see Altenmüller 1965: fig. 28).
357 On the god and its cult see LÄ V.7:995-1031. (sbk = Sobek) (Wb 4, 95.2). See also Wb 2, 355.12.
359 map 36 in Phillips 2008, vol. 1. These are [P62], [P102], [P398], [P427] and [P514].
360 See individual catalogue entries in Phillips, vol. 2.
361 For a few examples, see Poursat 1976.
a single workshop – not necessarily on Crete.\textsuperscript{362} The author of this thesis, having handled one of the items and seen the rest in good quality images,\textsuperscript{363} distinguishes some technological and artistic similarities among the items (e.g. the head detail is remarkably alike), and therefore agrees with the point raised by Phillips. Additionally, considering that the 3 out of 5 items are combs, it is likely (yet hypothetical) that either the workshop specialised in the production of such combs, or, there was a special connection between the combs (and 'exotic' ivory maybe?) and the crocodile image.\textsuperscript{364}

\textit{Time, space, context}

Again, most examples are from central and eastern Crete.\textsuperscript{365}

- No Prepalatial examples.

- One Protopalatial: [P517] a crocodile on a seal face design from Tsoutsouros.

- No examples from Neopalatial Crete.

- Final palatial: [P62] from Archanes 'Mycenaean grave cycle (origin problematic)', an ivory comb with multiple pairs of crocodiles.

- End palatial: a comb from Karteros with confronted crocodiles.\textsuperscript{366} Another comb from Palaikastro [P427] which also presents a double pair of crocodiles. Pendant from Milatos [P398].

- No Post palatial examples.

\begin{itemize}
\item [P427] was handled by the author.
\item Combs [P62], Phillips 2008: vol. 2: 61 [P102], and [P427] all three are made of ivory.
\item Map 36 in Phillips 2008 vol. 1 and for the 'periodisation' of the items, the information derives from Phillips 2008, vol. 1: 210, and from the examples provided on the spreadsheet: [P62], [P398], [P517] and [P427].
\item Phillips 2008: vol. 2: 61 [P102].
\end{itemize}
A 'search' on the spreadsheet, and Phillips' catalogue, both demonstrate that the items presenting the crocodile image came from domestic and burial contexts.

○ Representative examples

Only a couple of examples will be discussed in detail here. The one is a Minoan theriomorphic seal from Tsoutsouros [P514] in the form of a lion's paw, which possibly demonstrates a crocodile (or lizard?) on its face. It is not secure to suggest that the item had a cultural symbolism, even though this is possible, since the cave of Tsoutsouros functioned as a shrine. The item is extremely problematic, to the point that it was considered a fake. If it is genuine, it may be linked to the Egyptian theme of Taweret, with leonine features and the crocodile on its back. Additionally, a very badly preserved ivory comb handle from Archanes demonstrates pairs of confronted crocodiles with regardant heads. Another comb demonstrating the crocodile image (pictures 70, 71) was unearthed at Palaikastro, block X.

○ Conclusions

Judging from the absence of living crocodiles in the Aegean and the archaeological context of the finds, the author of this thesis agrees with Phillips that the artistic inspiration of the crocodile in the Aegean is foreign (most likely Egyptian); and that the crocodile image was favoured by the palatial and non-palatial elite, as did other fantastic creatures at the time. Was there a special connection between the exotic ivory, the

367 See Phillips 2008, vol. 2: 253 [514] and [P514] in this study. The item is Egyptianising as it depicts the crocodile image, which is not indigenous to the Aegean. Therefore it should be considered as an artefact which has received foreign inspiration. Kenna (CMS IV: 398) however states that the four-footed animal is a lizard and not a crocodile. Even if the creature on the seal was a lizard, it would manifest image comparanda in Egypt. The lizard image in amulets is examined in Andrews 1994: 66.
368 See [P514] for a discussion of the item, along with further references.
369 Taweret, the fertility deity is depicted in Egypt with the head of a hippopotamus with leonine paws and feet, dorsal appendage and sometimes a crocodile on its back (see Altenmüller 1965). The item may be seen as a minimalistic version of such an iconography. See the relevant group of finds (about Taweret) in the Annex.
370 The item is discussed in detail in Phillips 2008, vol. 2: 41 [62]. A picture is provided in Karetsou et al. 2000a: 179 [166]. It was apparently unearthed in the 'Mycenaean Grave circle' at Fourni. The artefact is Minoan but Egyptianising, as it depicts the image of the crocodile.
371 The artefact can be seen in (pictures 70, 71). For pictorial material, see also Karetsou et al. 2000a: 180 [167].
crocodile image, and (female) hair combs? It is impossible to certify such a notion. One notices that pairs of crocodiles are preferred in the Aegean (see [P62], [P102] and [P427]) but whether this duality had any symbolism, or was simply a decorative pattern, remains uncertified. Some pieces come from funerary contexts (e.g. [P102], [P62]) but it is unlikely that these items had a ritual funerary use on Crete, as they did in Egypt.\footnote{373 For the ritual and funerary value of similar items in Egypt, see e.g. Andrews 1994: 26, and fig. 4D; and LÄ. III.5-6: 791-801, LÄ. III. 6: 801-811.} Instead, they were everyday items, which also functioned as grave goods.

The crocodile image spread from Mycenaean Crete to the Mainland ([P62]). On Crete, the image received decorative, apotropaic and funerary use, and similar was the function of the crocodile depictions on the Mainland.\footnote{374 Judging from [P62].} In the Aegean, the appearance of crocodiles, was probably spread by word of mouth. Some Aegeans went to Egypt, saw the animal, returned home and described it, for the artists to eventually depict.\footnote{375 Phillips 2008 vol. 1: 213.}
8. Waterbirds image

○ Introduction

The swan, goose, duck regardant and waterfowl images are also examined by Phillips, in both Egypt and in the Aegean.\(^{376}\) Indeed, as Phillips points out, these images are rather popular in Egypt, in frescoes, vessels, as vessel ornaments, seals, some pendants, as hieroglyphic signs, etc., especially the regardant or sleeping scheme.\(^{377}\) Still, in the Aegean, limited items related to these birds have been unearthed, including a terminal, a few seals, a pyxis and kymbe and some weights.\(^{378}\) Most Aegean examples date to the Neopalatial Period.\(^{379}\)

○ Overview

In Aegean landscape scenes, waterbirds sometimes appear in active poses, with regardant heads.\(^{380}\) Apart from painting, the image of waterbirds with regardant heads also appears in a dozen items such as seals, beads and weights, and in a couple of cases, vessels.\(^{381}\) The work of Phillips has indicated that any seals in the form of a regardant waterbird might have received an apotropaic value and are most likely inspired by Egyptian prototypes.\(^{382}\) Assuming that there are no forgeries, only four of the items listed by Phillips are (probably but not certainly) imported Egyptian: [P436] (Neopalatial) and [P59], [P263], [P417] (Final Palatial), and the rest are most likely

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\(^{377}\) See Phillips 2008: vol. 1: 183-188 with examples and further references. For cosmetic containers in the form of swans or ducks (from New Kingdom Egypt) see Vandier D'Abbadie 1972: 44-45 [118] (duck) and Hermann 1932: pl. X,b (swan). See also 'Vase with bird on pedestal' displayed in the Aegean processional scene in the tomb of Rekhmire (appendix Five).

\(^{378}\) For numbers and examples see the following pages.

\(^{379}\) See Phillips 2008: vol. 1: 188-192 with a list of these artefacts. See also Phillips 2008: vol. 1: distribution maps 32 for the distribution of swan, goose, duck regardant image on Crete over the course of time.

\(^{380}\) Morgan 1988: 63-67 (e.g. Haghia Triadha and the House of the Frescos at Knossos).

\(^{381}\) See Phillips 2008: vol. 1: 188-192, e.g. terminal [P59], seal [P80], seal [P436], vessel (?)[P436], all from Crete, and kymbe [P589] from Mycenae. An object from Nea Halikarnassos (Phillips 2008: vol. 2: 207 [417]) may have functioned as a weight. Otherwise, it functioned as an amulet or a bead.

\(^{382}\) Phillips 2008: vol. 1: 191. For Egyptian pendants and amulets with the image of waterbirds see Andrews 1994: 92. Also, Egyptian hieroglyphic sign G 54 (the trussed goose or duck) is the ideogram for fear.
indigenous products, possibly inspired by Egypt and the Near East.\textsuperscript{383} As a rule, Phillips has pointed out that large(r) items demonstrating this image are Mycenaean, or at least Mycenaenising.\textsuperscript{384} This is true, judging from Mycenaean bowl [P591].

\begin{itemize}
  \item \textit{Time, space, context}
  
  \begin{itemize}
    \item Protopalatial: Three seals date to the Prepalatial and transitional Pre-/Protopalatial: [P80] from Kaloi Limenes, and two seals of unknown context ([P570] and [P571]).
    \item Protopalatial: There is only one example from the Protopalatial: seal [P528].
    \item Neopalatial: three items from Crete: vessel (?) [P310], weight (?) [P437] and imported seal [P436]. Also kymbe [P589] from Mycenae, which is of Minoan manufacture, and most likely a highly-valued item in its era, as it was discovered in an elite Mycenaean grave.
    \item Final palatial: three items dating the Final Palatial: terminal [P59], a pyxis,\textsuperscript{385} and a 'weight'.\textsuperscript{386}
    \item End and Post-palatial: no examples.
  \end{itemize}

Unfortunately, the exact site and context of four items ([P570], [P571], [P528], [P529]) is not known, but in general, the author observes that there is a concentration of such items in the Knossian region. No (published) items with the regardant waterbird image have been discovered in the western part of Crete. The database shows that the context of such items (when known) is usually funerary. One can assume that some of these

\textsuperscript{383} These are [P80], [P310], [P437], [P570], [P571], [P528], [P529] and [P589]. For objections and different views about the provenance of the items see the spreadsheet.
\textsuperscript{384} Phillips 2008, vol. 1: 191. See the vessel from Mycenae [P591] and the pyxis from Knossos [P263].
\textsuperscript{385} This is item: Phillips 2008: vol. 1: [263].
items - particularly the beads and weights - were also used in everyday life.

- **Representative examples**

The author concludes (as a result of autopsy) that the ivory-made terminus of a swan (or duck) head [P59] (picture 39), discovered in Tholos Tomb B at Fourni (Archanes), was used as a handle of an object. The item may be considered as a luxury grave good. More artefacts discovered in the Aegean and displaying the swan / goose / duck regardant image are listed in the catalogue of Phillips. The image is also seen in a swan-shaped bowl from Mycenae [P591], seen in (picture 83). An Aegean porter depicted in the Aegean processional scenes in the tomb of Rekhmire carries a vessel with a regardant bird on pedestal.

- **Conclusions**

It is notable that both Egyptians and Aegeans were fascinated by waterbirds, observed them in detail and 'recorded' their beauty and behaviour in art. Turning to Phillips, the image of the bird with regardant head was developed independently in the Aegean and Egypt. There is no doubt, however, that the image could be a koiné with respect to specific artefacts: for instance, bird-shaped vessels with regardant heads were common in the Near East, and used as cosmetic containers. So did zoomorphic seals and weights in the form of a bird with regardant head, which are found in both Egypt and the Aegean. Yet, it is not even certain that items [P417], [P437] and [P529] operated

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387 Another example of artistic transition may be distinguished in this example. Excavation in Tholos Tomb B produced a large number of human bones. For the tomb see Sakellarakis 1991, and Sakellarakis and Sakellaraki 1997. For the item see Karetsou et al. 2000a: 181 [168] (Π.Σ.); Phillips 2008, vol. 1: 39 [59].

388 The item was handled by the author. For other Minoan Egyptianising or Egyptian artefacts from Archanes, see Phillips 2008, vol. 2: 30-42 [46-62].


390 See ‘vase with bird on pedestal’ displayed in the Aegean processional scene in the tomb of Rekhmire (Appendix Five). For the Aegean processional scenes see chapter Six.

391 Phillips 2008, vol. 1: 192. Of course, an exception to the rule is the Mycenaean bowl [P591], which is very closely associated to Egyptian prototypes. The rock-crystal duck (or swan, according to Phillips) bowl from Mycenae tomb O is discussed in Phillips 2008, vol. 2: 281 [591] (picture 83).


393 Egyptian: e.g. Andrews 1994: 61, fig. 60:b and Petrie 1926: 6, pl. IX: 2415, 2848. Aegean: [P80], [P437].

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as weights. Assuming that they operated as such (whether imported from Egypt or copying Egyptian weights), it is plausible that only the practical value of these items was transported / preserved on Crete.  

9. Gravidenflaschen and parturient images

- **Introduction**

*Gravidenflasche* and *muttermilchkrüglein* are two vessel types which have received their name by Brunner-Traut. There are numerous variations of these vessels, but in general, *gravidenflasche* is an anthropomorphic vessel in the form of a pregnant feminine form, occasionally associated with Taweret. *Muttermilchkrüglein* is a similar vessel to *gravidenflasche* except that the female figure is not pregnant and often appears holding a young child. In the Aegean the *gravidenflasche* image is found not only in vessels, as in Egypt, but also in other artistic media. Six Aegean examples are found in Protopalatial, three in Neopalatial and one in the Final Palatial Crete.

The Egyptian standing hippopotamus deity Taweret shares some traits with the image of *Gravidenflaschen* (particularly the pregnancy / fertility elements), the cultural character of which was discussed earlier. The Egyptian *Gravidenflaschen* were used as vessels for ointments or unguents, by women in the late stages of pregnancy.

- **Overview**

Phillips notices that on Crete, some locally-made items demonstrate images of sitting or squatting, 'large' females, with pendant breasts and hands placed on their abdomen, in the form of figurines, pendants and parturient vessels. On Crete, all 8(?) items

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395 Brunner-Traut 1970. See [§ Gravidenflaschen, § parturient].

396 These vessels are made from ivory, travertine, clay, or alabaster. The female figures are always nude, with a large belly, pendulous breasts, arms to stomach, standing (the pregnant type), or with knees attached to the torso (pendant type giving birth) (Brunner-Traut 1970: passim, with examples).

397 See Phillips 2008: vol. 1: 214-215 with expanded bibliography, further references and a few examples from Egypt. *Gravidenflasche* vessels appear after Amenhotep II in Egypt, but this date is problematic.

398 See Phillips 2008: vol. 1: 215-217 for Aegean examples and distribution maps 37 for the distribution of *gravidenflasche* on Crete over the course of time. See also e.g. [P451], [P119].

399 See the group discussing the 'Egyptian standing hippopotamus deity and the Minoan Genius' in the appendix.

400 As Brunner-Traut (1970) suggests.

demonstrating these images are local but one: Egyptian Gravidenflaschen rhyton [P119] which dates no earlier than the reign of Amenhotep II. In essence, according to Brunner-Traut's definition of 'Gravidenflaschen', which refers to vessels only, \(^{402}\) [P119] is the only example from Crete that could be called a 'Gravidenflaschen', whereas all locally-produced examples are to various degrees distant from this image. Notably, all examples from the End palatial onwards are vessels. \(^{403}\) The muttermilchkrüglein form is absent on Crete. \(^{404}\)

- **Time, space, context**

  - No prepalatial examples. \(^{405}\)

  - Protopalatial examples are generally small (for instance, in the form of a figurine, vessel appliqué or pendant) and connected to the ape image (e.g., their poses are similar to [P312], [P378], [P451] and [P452]). \(^{406}\)

  - Neopalatial: possibly only one example: [P119], imported and converted into a rhyton at that time. Alternatively [P119] dates to the Final palatial. \(^{407}\)

  - End palatial and post palatial: three vessels were probably used as rhyta. \(^{408}\) One of these items, a femiform parturient ryton from Khamaizi Pharsi, \(^{409}\) was found in a domestic shrine, thus, the image may have received a ritual symbolism on the island. \(^{410}\)

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\(^{405}\) map 37 in Phillips 2008, vol. 1

\(^{406}\) Phillips 2008 vol 1: 215

\(^{407}\) Phillips 2008 vol 1: 215

\(^{408}\) The use of Phillips 2008: vol. 2: 25 [35] (vase), as a rhyton is less certain, but possible. The other two are Phillips 2008: vol. 2: 50 [78], Phillips 2008: vol. 2: 71 [123].

\(^{409}\) This is entry: Phillips 2008: vol. 2: 71 [123].

\(^{410}\) Phillips 2008 vol 1: 216

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Again no examples originate from Western Crete (unsurprisingly, due to the mountainous landscape, fewer excavated sites and fewer urban sites), with most examples (6 out of 8) from central regions, and two from the Eastern part of the island. The spreadsheet presents 5 out of 8 items: their contexts are domestic, ceremonial and funerary.

- **Representative examples**

Alabaster vessel [P119](pictures 53, 54) from Katsamba may be connected to magical / medical / therapeutic rituals with regard to fertility and childbirth. The vessel was transformed into a rhyton by the Minoan craftsman. A hole was drilled in its base, so it could be used for libations. The Clay figurine of a pregnant woman from Phaistos Palace [P451] (from a Domestic shrine?) also recalls the *Gravidenflaschen* image.

- **Conclusions**

The ceremonial character of the image is prominent in the End and Post palatial Crete, where parturient vessels had received a ritual value. Before the End palatial it is unlikely that these items had some ritual value, but the latter remains problematic. For instance, one notices that the pieces from Phaistos (protome and figurine) [P451], [P452] come from contexts that could be ceremonial and domestic at the same time (e.g. a domestic shrine).

Phillips points out that the image was developed independently on Crete, although she does accept that Egyptian art (particularly aspects of the standing hippopotamus deity and ape image) influenced the Minoan models.

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411 The site from which the item derived is unknown. Phillips mentions that it may have derived from Anemospilia (Phillips 2008: 69: [119]).
412 See [*modified exotica*].
413 The image of *gravidenflaschen* appears on Crete in various artistic media, and not only as a vessel. See the end of chapter Three: 'Egypt to the Aegean' and Phillips 2008: vol. 1: 214-217 with further examples and references.
414 Such as Phillips 2008: vol. 2: 50 [78].
The opinion of Budin is that in fact, Minoan art inspired Egyptian gravidenflaschen and not the opposite. Budin reports that, first, Minoans received inspiration from Egyptian Taweret, they combined it with the local 'Vessel Goddess' iconography, then they promoted the result to Egypt, Egyptian gravidenflaschen was invented in the eighteenth dynasty, and the Minoan and Egyptian images were eventually fused together.

The author feels that both Phillips and Budin are right.

Phillips is right because the source of inspiration for the image was of course the pregnant, overweight and fertile, female figure, which (as is common worldwide) would certainly call for an artistic koiné, with images developed independently in different cultures, and transcultural styles mixed together in the process. Moreover, Phillips is right about the individuality of the images, because the author of this thesis notices that most locally-produced pieces (especially the early examples – i.e. excluding the vase and the two rhyta) are very distant to Egyptian parallels. It is certain – particularly from the poses of these figures – that the ape image influenced the parturient image on Crete, as Phillips has previously suggested.

Yet, since the only imported piece ([P119]) dates to long after the image was first presented on the island, and no other piece was imported from outside the Aegean, it is evident that the Cretans were fond of their own version of the image instead of importing foreign models. The latter signifies that the Minoan image was already well-developed and popular on Crete when gravidenflaschen was invented in the eighteenth dynasty. Which means that Budin is also right: the Minoans received inspiration from Taweret, created and re-shaped the image and then, they 'recycled' it to Egypt, for the two images to eventually blend together.

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416 For the 'Vessel Goddesses' see Goodison 2009: 235-236.
417 The earliest example of gravidenflaschen in Egypt is Brovarski et al. 1982: 293, no 404, from an Abydos tomb, which dates to the reign of Thutmose III.
418 Budin (2010: 24; 2011: 274-275) supports her view with the fact that 1) the 'Vessel Goddesses' must have influenced Egyptian art, b) because items made on Crete and demonstrating the image, date earlier than the eighteenth dynasty Egyptian Gravidenflaschen and c) because in Egyptian art, the portrayal of pregnant women is only evident from the reign of Hatshepsut onwards.
419 Phillips 2008 vol 1: 217
420 As Phillips has noticed (2008 vol. 1: 119-121).
Lastly, whereas in Egypt Gravidenflaschen vessels were used for medical substances,\textsuperscript{421} Cretan 'Gravidenflaschen-like' vessels were designed to pour liquid, rather that contain any substances. Yet, the imported piece [P119] could have reached Crete as a container of an exotic substance.

10. **Vessels and containers**

A variety of Egyptian and Egyptianising vessels were unearthed on Crete and the Archipelago: ceramics, stone vessels, vessels made of faïence, 'Egyptian blue', glass, etc. Most of the vessels presented in this study (those discovered on Crete) were discussed in the monumental work of Phillips. Lambrou-Phillipson, Cline and the Karetsou catalogue have also studied some Aegean vessels from Crete, the islands and the Greek mainland. Only a few, selected examples are provided in the following pages, grouped by material.

i) **Stone vessels**

   ○ **Introduction**

Early dynastic stone vessels make their way from Egypt to the Aegean and they are also copied in Cretan workshops, Egyptian stone vessels, particularly thin-walled bowls, and their imitations also appeared on Crete. Phillips has noticed that these are not containers and may function ritually. Individual vessel types include alabastra, amphoras, bowls and jars of various sizes and styles, and of course, lids of containers. Some had a practical / domestic use, others were ornamental, and there were those used as grave goods or for ritual purposes. A number of these vessels are identified by scholars as antiques in their archaeological context and some appear to be converted to Minoan fashion. Many Egyptian and Egyptianising vessels were containers (picture 189). These must have been appreciated for their content.

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422 See Phillips 2008, vol. 1: 47-75 for vessel types; ibid: 80-88: for converted stone vessels; ibid: 89-100 for vessels made of faïence, Egyptian blue and glass; and ibid: 100-108 for ceramics. Phillips provides a large number of references on previous studies with regard to all vessels presented in her work.

423 Lambrou-Phillipson 1991; Cline 1994 (reprinted in 2009); Karetsou et al. (2000a).


427 The spreadsheet provides the type and possible use of the vessels.

428 E.g. [P145], [P105]. For the Egyptian antiques / vessels that are modified according to local taste see chapter Seven: 'Some observations on Egyptian and Egyptianising material unearthed on Crete and in the Archipelago'.

429 e.g. [P116].
○ **Overview**

Egyptian and Egyptianising stone vessels on Crete are well researched by Warren and updated by Bevan.\(^{430}\) Phillips (2008) examines them separately in her catalogue and groups them according to vessel type. She discusses imported or locally-made vessels of various shapes, sizes and stone types. She also raises the alarm in using these vessels – and particularly the imitation of Egyptian vessel styles – for the study of A-E chronological links;\(^{431}\) a point on which the author of this thesis also concurs, since many of these vessels come from problematic contexts or could be antiques in their context.\(^{432}\) Moreover, to the author, a vessel is likely to have been transported from a region to another after several decades of use; therefore, the vessel's type and context dates do not always agree.\(^{433}\) Yet, the value of the study of these vessels should not be underestimated: the examination of these vessels highlights which types of Egyptian vessels the Aegeans favoured to import, what the content of such vessels might be, and what foreign types and styles were copied by Cretan manufacture. Of course, Egyptian and Egyptianising vessels are found all over the Aegean: Many reached the rest of the Aegean after their redistribution by the Cretans, e.g. [P584] from Kythera and [P591] from Mycenae.

○ **Time, space, context**

- Prepalatial:\(^{434}\) about 6 pieces correspond to this era, since many examples are problematic in origin and context.\(^{435}\) A characteristic example is an open vessel fragment from Knossos,\(^{436}\) which is an Egyptian import and, to Phillips, the earliest found (early EM IIA) at Knossos and on Crete in general.\(^{437}\) Many vessels are made of soft stone, are thick-walled, and some are miniatures.\(^{438}\) The

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\(^{432}\) e.g. [P116].

\(^{433}\) (table 27)

\(^{434}\) The following are some of the main points in Phillips' discussion of stone vessels over time (2008, vol. 1: 40-45) but the author often adds her own view in the discussion. No maps accompany these pages, as Phillips' distribution maps are based on vessel type.

\(^{435}\) e.g. [P135] which cannot be located and was published in drawing only. Another example is [P23].

\(^{436}\) The fragment in question is Phillips 2008: vol. 2: 82 [139].


\(^{438}\) Phillips 2008: vol.1: 40.
vast majority of these examples come from Knossos.\textsuperscript{439} Locally-made but Egypt-influenced vessels at the time are particularly 'cylinder jars' and miniature amphorae (i.e. shouldered jars) with most vessels coming from burials.\textsuperscript{440} Any connection between the ritual / funerary use of these vessels on Crete and in Egypt is entirely speculative.

- Protopalatial: their number increases (Phillips numbers over 10 pieces), and there is still a concentration of such vessels at Knossos; yet, locally-made Egyptianising vessels outnumber imported vessels.\textsuperscript{441} The author observes the following from Phillips' distribution maps of stone vessels (maps 1-12 in vol. 1): 4 locally-made Egyptianising miniature amphorae, 2 shallow carinated bowls (one local, the other Egyptian), 1 imported squat spheroid flat-collared jar, 1 local Egyptianising cylinder jar, and 1 local Egyptianising miniature jar.

New forms are introduced, with a preference for larger vessels, local or imported. Imported and copied types of the era are anorthosite gneiss shallow carinated bowls, possibly used for rituals.\textsuperscript{442} Also 'deep open bowls', 'moustache caps', 'spheroid jars', and 'handle blossomed bowls'. Shallow carinated bowls were popular at the time.\textsuperscript{443} The vast majority of these vessels come from palatial contexts. Interestingly, Phillips emphasises on the importation of anorthosite gneiss shallow carinated bowls in order for these pieces to play a ritual role in Knossian society.\textsuperscript{444} To the present author, this statement should be valued on the grounds that the Minoans targeted a foreign item (and its imitations) for a specific role, a notion that in fact could manifest a 'deeper' cultural relation between Knossos and Egypt, the details of which are now lost.

- Neopalatial: this period is represented by a high number of imported vessels,
often locally-copied, with the vast majority found in urban centres with palaces. Based on Phillips' distribution maps, the author has gathered the following information: 37 imported pieces over 30 locally-made, i.e. a good balance between imports and Minoan imitations. The spreadsheet demonstrates that, of all items marked as imports, the majority (31) are labelled by Phillips as 'Egyptian' or 'Egyptian(?)' – i.e. Phillips has some doubts over their Egyptian origin. The genuine Egyptian origin of several of these 'Egyptian(?)' vessels is problematic considering that at the time, Egyptian vessels were 'imitated' and 'replicated' by Near Eastern workshops; with the Cypriots habitually copying and distributing Egyptian-style vessels. In particular, the number of 'Egyptian' and 'Egyptian(?)' imports of alabastra is impressive: 17 imported(?) over 4(?) locally-made Egyptianising imitations. Note also the high number (18) of locally-made 'Egyptianising' amphorae, with 13 out of the 18 coming from the Messara plateau. Many imports must have served a ritual role, as they come from ceremonial contexts.

Crete functioned as a redistribution centre of imported Egyptian vessels, circulating them to the rest of the Aegean, often for their contents (e.g. [P587], [P596] from the Mainland and [P585] from Thera). From LM IA onwards some imported vessels were modified by Minoan artisans (e.g. [P104]). Mainly two types were popular at the time: alabastra (e.g. [P106]) and large spheroid flat collared jars used as heirlooms (e.g. [P171]). Many vessels discovered in Neopalatial contexts appear to be heirlooms in their archaeological context (e.g. [P222]). As Brandl correctly points out, it is theoretically possible that one of the reasons this may have happened is the following: at the time, the circulation of antiquities became very popular in the Near East, and antiques were unearthed in

445 Phillips does not provide an exact number. She however states (2008, vol.1: 43) that some vessels from Neopalatial contexts had probably reached Crete in the Protopalatial (e.g.[P165-171]).
446 Phillips 2008, vol. 1, maps 1-12
448 Numbers are approximate as many items have a problematic provenance.
450 e.g. [P369].
451 Phillips 2008: vol.1: 42-43
funerary, domestic and ritual contexts.\textsuperscript{452} The Hyksos played a major role in the
circulation of Egyptian and other locally made vessels (especially those
considered heirlooms) and so did tomb robbers; without of course implying that
the state did not participate in this exchange. Many of the New Kingdom vessels
exported to Crete must have contained toiletries.\textsuperscript{453} Phillips is surprised that no
pieces were found at Malia, which was open to foreign items and ideas in the
previous period.\textsuperscript{454} To the author, this may signify that Malia either ceased
playing a key-role in the international market, or the locals were simply selective
in their imports at the time.

- Final palatial: Egyptian and Egyptianising stone vessels were found at Kalyvia,
  Knossos, Katsamba and Archanes, and Phillips notices that the majority comes
  from funerary contexts or they have a ritual function. Flourishing types were
  converted rhyta, imported high-shouldered jars, clay alabastra and local spheroid
  flat collared jar types.\textsuperscript{455} Alabastra are the most popular.\textsuperscript{456} Again, the numbers
  that the present author provides are approximate:\textsuperscript{457} 43 imported(?) over 9
  locally-made. Of the 43 imported pieces, most are labelled as 'Egyptian' or
  'Egyptian(?)', and some may have been manufactured in the Levant, as it
  happens in the previous period. 18(?) alabastra were imported at the time, and
  the vast majority come from Knossos and its vicinity.\textsuperscript{458}

- End palatial / Post palatial: very few stone vessels / imported or locally-
  produced (under 15). Decline of stone vessels.\textsuperscript{459}

\textsuperscript{452} Brandl 1984: 62, 79 n. 71. This is also confirmed by the number of antiques or possible antiques
  corresponding to this period, even though, to the author, only a guess can be made about how the
  vessels reached their new environment.
\textsuperscript{453} Phillips 2008: vol.1: 43-44
\textsuperscript{454} Phillips 2008, vol.1: 43
\textsuperscript{455} e.g. [P250] alabastron, [P144] amphora, [P242] deep open bowl, [P219] closed vessel, etc.
\textsuperscript{456} Phillips 2008: vol.1: 45
\textsuperscript{457} Certain items called by Phillips as 'Final Palatial' on the maps, may come from later contexts, and for
  many, context and provenance are problematic (e.g. [P131]). The author's number estimations are
  based on Phillips 2008, vol. 1, maps 1-12 and the spreadsheet that the author has created.
\textsuperscript{458} e.g. [P90], [P148].
• No context or Post Minoan context: the author estimates the striking number of 70 vessels for this group, 37 of which are most likely imported.
Types of stone vessels

1) Alabastra

Alabastra come from palatial, domestic, funerary and ritual contexts: they were appreciated for their contexts and for the vessel itself. It is notable that the preferred type of alabastra in the Aegean was type C; 28-30 type C alabastra were discovered on Crete and Mycenae. Bevan correctly argues that these alabastra, which have parallels in Egypt and the Levant, were used as containers (for oil?); and Aegean elites had equated type C alabastra to exotic luxury. On the contrary, only 4 type A alabastra have survived and type B is represented by 7-8 pieces. From Phillips' map, it is obvious that the vast majority of alabastra on Crete and Mycenae (43 out of 52) are imported; with a concentration of imported alabastra (over 30 pieces) at Knossos and its vicinity. To conclude, the Knossian elite habitually imported (and occasionally copied) alabastra.

Alabastra become very fashionable in Neopalatial and Final palatial Crete but declined later. Type C alabastra were so popular on Crete that 4 indigenous imitations of these vessels were made from clay. To the present author, the imitations of these vessels reflect the 'market demand' of type C alabastra - and probably their content as well - as happens nowadays with counterfeit products. Egyptian alabastra reached Crete directly or via the Levant. Any alabastra that reached Crete with some delay maintain no value for the A-E chronological links.

461 An example from Mycenae is [P590]. The number is approximate and some alabastra could belong to type C or another type. For the type (a.k.a 'baggy alabastra') see Freed 1987: 200, no 65 (with a drawing) and Warren 1969: 112-113.
463 [P146], [P218], [P259] and [P91]. For a description of type A alabastra (e.g [P250], [P285]), which, in fact, are not normally called 'alabastra' in Egypt, see Warren 1969: 112, type 43 H.
464 e.g. [P199], [P237], with their drawings in Phillips 2008, vol. 2. For type B (a.k.a 'drop-shaped' alabastra) see Petrie 1937: pl. XXIX: 655, 658; Aston 1994: 142, no 145.
466 The clay type C alabastra from Crete are the following: [P8], [P76], [P176A], [P453].
2) Amphorae

Used for storage and rituals, they come from domestic, ritual, and funerary contexts.\textsuperscript{468} The majority of amphorae on Crete (17) are locally made, all from clay.\textsuperscript{469} Only 5 pieces are imported;\textsuperscript{470} with 3 out of 5 coming from Final palatial contexts. However, the imitations of imported amphorae were very popular in Neopalatial Crete (with 18 pieces), while 13 pieces come from the Messara region, possibly because of a workshop there.\textsuperscript{471} The shape and size of these vessels indicate that the preference of the Minoan society in amphorae may be due to their functionality: they were appropriate for storage and 'safe' transportation of goods.\textsuperscript{472}

3) Miniature amphorae

Phillips numbers 34 pieces, all local but imitating Egyptian vessels.\textsuperscript{473} The present author notices that the majority (20 out of 34) of the miniature amphorae come from Prepalatial and a few (4) come from Protopalatial contexts.\textsuperscript{474} Again there is a concentration of these vessels (about 20 pieces – most of them 'Prepalatial') in the Messara region,\textsuperscript{475} which, in conclusion, raises the possibility that these vessels were made in a local workshop. Surprisingly these vessels were not popular at Knossos, but rather, they were a Messara 'phenomenon'; and given this evidence, a possible local popular trend and tradition for these items is manifested. Their use was funerary and cultic.\textsuperscript{476}

4) Deep open bowls

\textsuperscript{468} On their use, see Phillips 2008, vol. 1: 56.
\textsuperscript{469} Phillips 2008: vol.1: 58-59, e.g. [P489]. 17 locally-made amphorae, all made from clay, all from Neopalatial contexts. The spreadsheet differentiates between 'amphorae' and 'miniature amphorae'.
\textsuperscript{470} [P114], [P144], [P149], [P287], [P373].
\textsuperscript{471} map 3 in Phillips 2008, vol. 1
\textsuperscript{472} See e.g. [P369].
\textsuperscript{473} They imitate Egyptian vessels of the smallest Egyptian shouldered jar type (as in Aston 1994: 138-139, nos. 132-135).
\textsuperscript{475} e.g. [P461-467] from Platanos.
\textsuperscript{476} Phillips 2008: vol.1: 61
All 10 bowls of this type came from Knossos and its vicinity. Therefore, the author of this thesis would argue that these vessels were a north-central Cretan phenomenon. Some are of unknown or problematic contexts, but in general, they are found in contexts that date from the Prepalatial onwards. All pieces found in the island are imported. The use of these imported pieces was primarily domestic, and secondarily funerary, but certainly elite associated.

5) Shallow carinated bowls

Popular in Proto- and Neopalatial, most come from domestic elite contexts. 4 locally-made and 5 imported (Egyptian) vessels of this type were unearthed, primarily at Knossos and its vicinity. The Egyptian imports date to the later Old Kingdom. Although Phillips numbers 9 examples from Crete, the context of 7 out of 9 is problematic or unknown. Their exact use on Crete is uncertain.

6) Squat high-shouldered jars

Of the 8 pieces provided by Phillips, 4 are imported (3 Egyptian 'heirlooms' and 1 probably Levantine but remarkably Egyptianising) and 4 are locally-made. The vast majority were found at Knossos and its vicinity. These vessels were particularly popular in the Neopalatial and the Final palatial, then started declining. The find contexts (spreadsheet) demonstrate that Philips rightly points out that these vessels were imported and were used primarily in elite contexts.

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478 e.g. [P169], [P289].
479 Phillips 2008: vol.1: 62; e.g. [P135] (Knossos palace), [242-243] (Royal tomb of Isopata).
480 Phillips 2008: vol.1: 66
481 map 6 in Phillips 2008, vol. 1; for the type of vessel see Warren 1969: 75, type 30C, 111, type 43 E. For the Egyptian parallel see Aston 1994: 133, no 112. Imported example: [P175]; locally made: [P213].
482 e.g. see the unknown context of [P292-294].
483 Whereas in Egypt and the Levant these vessels were used on separate tall stands (1994: 133, no 112; Warren 1969: 408; Betancourt et al.1983: 32-33, fig. 1; and Oren 1997: 266, fig. 8.1, the latter with a Syrian parallel), this scenario cannot be confirmed for Crete.
485 [P214], [P228], [P229], [P494]. Warren 1969: 110-111, type 43:D.
486 map 7 in Phillips 2008, vol. 1
used primarily as container and secondarily for funerary purposes.  

7) Squat spheroid flat-collared jars

On Crete, these vessel types were used for funerary purposes or as containers, as happened in Egypt. At least 3 of these vessels were exported to Pylos and Mycenae via Crete ([P586-587], [P596]). The type was quite popular on Crete. Phillips numbers 50 pieces in total in the Aegean as a whole, 12-14 of which are imported Egyptian ('heirlooms') and the rest copy Egyptian parallels to a greater or lesser degree. The vessels of this type (imported and foreign imitations) are spread throughout the central and eastern part of the island. A concentration is seen in and around Knossos and in Messara, in tombs and urban centres. Many (at least 20) of these vessels come from problematic or unknown contexts but the context of many (approximately 17 out of 50) is Neopalatial. Both the imported pieces and their local imitations are discovered in palatial, occupation, religious and funerary contexts. Almost all imported examples are heirlooms in their context and date the Early Dynastic Period and the Old kingdom up to dynasty five. Turning to Phillips, from the study of the locally-produced examples, one finds that the Cretans were inspired by the Egyptian vessel but added their own, local taste when imitating the type.

8) Cylindrical jars with everted rim and base

Phillips numbers 19 pieces, with a concentration in the Messara. A few were also found at Knossos. Only 4 are imported, all Egyptian: [P132], [P136], [P311] and

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487 Phillips 2008: vol.1: 67
489 [P587], [P596] are imported Egyptian 'heirlooms'.
490 Examples: Imported are [P441], [P171], [P415], [P115]. Locally produced are [P5], [P6], [P99]. The numbers are approximate as the original provenance and context of some items (e.g. [P45]) is problematic.
491 map 8 in Phillips 2008, vol. 1
492 e.g. [P269], from Knossos, no find context. Two pieces from Neopalatial contexts are e.g. [P194] and [P415].
493 Phillips 2008: vol.1: 71

124
The vast majority come from Prepalatial contexts. One imported example was found in Thera. Both local and Egyptian pieces come from domestic, palatial, funerary contexts. As Phillips points out, judging from the shapes and sizes of these jars, the locally-made Egyptian imitations were probably functional vessels. Nonetheless, it may be argued that the rather common shape of the vessel was in fact a koiné.

9) Heart-shaped jars

Phillips provides two Egyptian pieces, both catalogued on the spreadsheet. One such vessel was found on Crete and another one at Mycenae, but was transported to the Mainland via Crete. Both are heirlooms in their context and come from tombs. The view of the present author is that the presence of these two vessels in the Aegean must be accidental, since no other similar vessels are reported.

10) Lids

Phillips numbers 8 pieces of this type, all from in and around Knossos and all imported. 7 are Egyptian (e.g. [P211], [P226]) and one could be Levantine or less likely, Egyptian. [P163] from Knossos is Hyksos-related, bearing the prenomen of Khyan. The majority come from Neopalatial and Final palatial contexts. Regarding the question 'why have foreign and locally-made lids not been found widely on Crete?', Phillips a) is not convinced that all imported examples were not even used as lids, and b) she argues that the Minoans must have preferred using their own lids. Moreover, c) lids are scarcely found because they break easily and were often recycled. Yet, it is reasonable to suggest that imported closed vessels, particularly containers, reached the Aegean with their lids on, for practical reasons. Also, to the author, the concentration of these lids at Knossos may be because the site is very well excavated.

496 e.g. [P406]
497 Phillips 2008: vol.1: 73
498 For the type see Warren 1969: 75, type 30:B; 110, type 43:B. Also, for the vessel in Egypt see Aston 1994: 92, no 4.
499 map 10 in Phillips 2008, vol. 1
500 Phillips 2008: vol.1: 75
501 e.g. [P163], [P221], [P490].
502 map 11 in Phillips 2008, vol. 1, e.g. [P221], [P490].
503 Phillips 2008: vol.1: 77
11) Other types of stone vessels

49 pieces are placed in this group by Phillips. These include the pyxis, gravidhenflasche, krateriskos, kernos, hydria, 'tube jar', etc. and are found throughout the Aegean, from Crete to Kythera and Mycenae. The majority come from in and around Knossos, possibly unsurprisingly because it is reasonably well-excavated. The majority (39) are imported and among the imports a high percentage have derived from Final palatial contexts whereas many come from problematic or unknown contexts, but not all imports are necessarily Egyptian. Many of these vessels, of the closed type, were probably used for toiletries. To the author, as this group covers a wide range of types, no specific conclusions should be raised for the group as a whole, but one point: Knossos and its vicinity (and in particular the local elite) were more open to importing foreign vessels of 'unusual' and 'novel' types compared to other regions of the island, with a concentration of 25 'unique' pieces. Second comes the Messara plateau, with a concentration of 6 pieces. The indications are, therefore, that elitism, and even urbanism, were expressed by Cretan communities through the accumulation of exotic, and especially novelty items.

12) Stone vessels: converted and reworked

Phillips provides 38 examples, 30 of which are called 'imported' or most likely 'imported'. These are found on Crete, Pylos, Mycenae, Thera. On the spreadsheet, all these catalogue entries appear as 'reworked', but many were also 'antiques'. It is not always certain where exactly these vessels were reworked, but some reworked vessels must have reached the rest of the Aegean via Crete. Many converted and reworked vessels have come from sites in and around Knossos (e.g. [P114] [P145], [P146] and [P148]), and a significant number also come from Mycenae (e.g. [P586] and [P589]). The majority were imported as antiques and then reworked in the Aegean. They are
evenly spread through time but most come from Neopalatial contexts, particularly of elite nature.\textsuperscript{507}

\textsuperscript{507} Phillips 2008: vol.1: 80-86
ii) Faience, Egyptian blue and glass vessels

   ○ Introduction and overview

Phillips discusses these vessels (all three materials together) as a separate group. Her group numbers 22 examples in total. In general, the majority of these vessels (19) come from Knossos and its vicinity – though their technology and occasionally material may have come from the Near East. Additionally, the Karetsou catalogue mentions a gold and faience miniature vase that dates to the Protopalatial [K73]. One faience vessel fragment ([P583]), probably Minoan, comes from Kythera. Of the 19 examples in Phillips' catalogue, 15 date to the Neopalatial – and they are all from the Knossos area. Most are Neopalatial and probably imported. The glass pieces are Final palatial or later. Faience was very popular with imported vessels in Neopalatial Crete. Some technologies were introduced from the Messara to Knossos. Specific numbers of items follow.

   ○ Time, space, context

- Prepalatial: Two examples: an Egyptian cylinder jar made from faience, from Maronia Siteias. The Minoans also made beads of faience at the time, but were not yet very confident with the faience technology. The second example was a faience bowl from Mochlos. No 'Egyptian blue', and no glass vessel from Crete date to this period.
• Protopalatial: Phillips mentions that no imported faience, no glass, and no 'Egyptian blue' pieces dating to this period were discovered before 2008. [K73] is Minoan.

• Neopalatial: imported faience and 'Egyptian blue' vessels are very limited compared to vessels made from other materials. Some examples came from the wider Knossos region, e.g. [P268] (faience) and [P193] (Egyptian blue). In fact, a number of faience vessel fragments from Knossos' 'Royal road buildings' date to this period.516 To Phillips, all faience vessels with Egyptian features are imported.517

• Final palatial: no faience vessels. One 'Egyptian blue' example: [P238]. Glass vessels: a few examples, e.g. a flask from Kalyvia.518

• End palatial: glass vessel: a bottle from Knossos.519

• Post palatial: no examples.

The spreadsheet indicates that the majority of these items come from elite contexts, palatial or funerary.

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516 These are: [P182-192]. Notice the entries on the spreadsheet, as some of these fragments are marked as 'Egyptian... possibly Minoan' (Phillips 2008, vol. 2: 110-111).
iii) Ceramics

○ Introduction and overview

Imported ceramic vessels from Crete were usually, but not exclusively, containers of goods.\textsuperscript{520} Egyptian ceramics have only been discovered at Kommos, particularly in Final and End palatial contexts.\textsuperscript{521} These constitute marl fabrics of various types, from amphoras to juglets:\textsuperscript{522} e.g. medium-sized amphoras with externally thickened rim\textsuperscript{523} and a possible juglet.\textsuperscript{524} Also, a handful of examples were made of Nile silt fabrics, e.g. hemispherical bowl [P333], and a shallow carinated bowl.\textsuperscript{525}

○ Time, space, context

Egyptian imports to Kommos range from LM IB late to LM IIIB,\textsuperscript{526} many from problematic contexts.\textsuperscript{527} They all come from the Civic Buildings of the 'Southern Area' and the Housing in the 'Hilltop' and 'Central Hillside' Areas and 'House X'.

Some examples are:

Neopalatial contexts: amphora [P332]
Final palatial contexts / deposition: amphora [P321]

End palatial contexts / deposition: jar [P342]

The spreadsheet only contains a limited number of examples, excluding many pieces discovered in End Palatial depositions. Yet, it is clear from Phillips' catalogue that the contexts of such vessels are (wealthy) domestic.

\textsuperscript{521} Phillips 2008 vol. 1: 103. E.g. [P331], [P332], [P358].
\textsuperscript{522} Their exact number is debatable but there are about 20+, and certainly more than the pieces made from Nile silt fabrics.
\textsuperscript{523} Phillips 2008: vol. 2: 174 [348], 176 [356], 177 [359].
\textsuperscript{524} Phillips 2008: vol. 2: 162 [324].
\textsuperscript{525} The shallow carinated bowl is Phillips 2008: vol. 2: 170 [337].
\textsuperscript{527} Phillips 2008 vol. 1: 103. The following examples come from Phillips 2008, vol. 1: 105-106. Many of these vessels come from 'depositions', fills, dumps and generally disturbed contexts (e.g. [P328]).
iv) Representative examples of vessels and containers: all materials

The miniature gold and faience vase [K73] must be seen as a clearly luxury item.\textsuperscript{528} It was manufactured on Crete, of foreign and high-value material, but copies Egyptian or Near Eastern vessels.\textsuperscript{529} It probably contained aromatic perfume or oil.\textsuperscript{530}

The glass flask from Karteros [P101] is mentioned here as an example of an item of problematic origin (Minoan, Egyptian, Cypriot, Syrian or other Levantine).\textsuperscript{531} Phillips considers it Egyptian or Levantine.\textsuperscript{532} The vessel may be associated with a flask from Kalyvia and also with [K78a-c]. It is indeed likely that glass, faience and the 'Egyptian blue', along with their technology, were introduced to the Aegeans by the Egyptians.\textsuperscript{533} It is clear that, other than the transference of the materials themselves - along with their technology - there must have been some craftsmen / tradesmen, who specialised in their production and distribution in the Eastern Mediterranean (possibly itinerant professionals involved in 'guilds', working for the 'state' or entrepreneurs).\textsuperscript{534}

\textsuperscript{528} For other Minoan Egyptianising or Egyptian artefacts from Knossos, and in particular, the palace area, see Phillips 2008, vol. 2: 76-159 [131-320].
\textsuperscript{529} The size and shape of this vase recall fifth dynasty stone vessels of the Old Kingdom; the base, neck and mouth of which are covered with gold sheet (Hayes 1953, repr. 1990: I, 72, pic. 47); also, silver and glass vessels from the tomb of the three wives of Thutmose III (Lilyquist & Brill 1995, cover, vessel on the right).
\textsuperscript{531} The flask in entry [P101] dates outside the chronological framework of this thesis; though, it is discussed here as an example of an extremely problematic exoticum. The flask was probably a tomb offering. Various suggestions have been raised about its origin. See Phillips 2008, vol. 2: 60-61 [101] for details. For other Minoan Egyptianising or Egyptian artefacts from Knossos, and in particular, the palace area, see Phillips 2008, vol. 2: 76-159 [131-320].
\textsuperscript{532} See Phillips 2008, vol. 2: 60-61 [101]. Phillips dates it to the LB IIA if Egyptian, or, the second half of the eighteenth dynasty - if Egyptian.
\textsuperscript{533} The glass flask from Kalyvia, of the same era, can be seen in Karetsou et al. 2000a: [74] (M.P.) / Herakleion Museum Y 270. Entry [K78a-c], examined below with the 'miscellaneous items', dates LM IB and it is said by Panagiotaki (in Karetsou et al. 2000a: 102 [78a-c]) to be made of Egyptian glass. See Phillips 2008, vol. 1: 89-100 for an examination of glass, 'Egyptian blue' and faience vessels and a list of items derived from Crete and Egypt (with further references and comparanda). For the glass industry in Egypt see Nicholson and Henderson 2000. Beads were also made of faience, glass and 'Egyptian blue'. See, e.g. a number of pendants discovered on Crete in Karetsou et al. 2000a: 108-109 [86] and [87], 111 [88], 115 [94], 117 [96], 119 [97] and [98], 126 [106], etc.
\textsuperscript{534} See § traders' multiple career, § trade, trader (and other professional) 'guilds', § traders, § travelling professionals.
Alabastra, usually made of travertine, are among the most common imported artefacts discovered in Aegean palatial, domestic, funerary and ritual contexts. They functioned as funerary items, ritual items and as domestic and palatial utensils or containers of high value goods (ointments, perfumes, pharmaceuticals, foodstuff, etc.).\(^{535}\) Alabastron [P4], made of grey-banded travertine, was discovered at Hagia Triadha, Villa Reale; a villa (rather than a 'palace') which combined public and private quarters, including a domestic area, storerooms, a possible shrine, etc..\(^{536}\) Though the owners of this mansion are not known, Villa Reale, and Hagia Triadha in general, had a cosmopolitan character, as indicated from the finds and frescoes discovered there.\(^{537}\) A locally-made clay 'alabastron' [P8], which simulates Egyptian travertine alabastra, was discovered in room 14 of the same villa; a room which functioned as a shrine or bedroom, judging from the nature of its wall-paintings.\(^{538}\) It must be borne in mind that the same room displays the 'cat stalking a bird' fresco [P9]. There was certainly an international atmosphere in Hagia Triadha at that time, especially with regard to the local elite, who actively participated in international exchange.\(^{539}\)

The author will now discuss Egyptian vessels (antique or not) transported to the Aegean and modified by Aegeans; and unmodified antique vessels.\(^{540}\)

\(^{535}\) For Egyptian alabastra see Phillips 2008, vol. 1: 46-49 with further references. For alabastra discovered on Crete see ibid: 49-55 and Warren 1969. For travertine see Lucas 2003: 59-61. For the types of Egyptian alabastra (types A, B, C), see Phillips 2008, vol. 1: 48-49, with further bibliography. The majority of the vessels unearthed on Crete are of the C type.


\(^{537}\) For the Egyptian, Minoan Egyptianising and Egypt-inspired finds from Villa Reale see Phillips 2008: vol. 2: 13-17. See also [P10], [P29], [P8], [P9], [P12]. For other Minoan Egyptianising or Egyptian artefacts from Hagia Triadha see Phillips 2008, vol. 2: 12-26 [4-37].

\(^{538}\) The item is an imitation of an Egyptian alabaster type C, to the point that it copies the veins of the travertine (see Warren 1969: 169, type 43). See also [§ imitations of foreign items]. It is not a replica of an Egyptian vessel, as it is produced in clay; and it is fairly easy to distinguish from the original. For Room 14 see Halbherr 1903; Halbherr, Stefani and Banti 1977: 91-95; Driessen and MacDonald 1997: 203; Phillips 2008, vol. 2: 14. Note that this is the room with the following frescoes scenes: 'woman at shrine', 'woman picking crocuses', the 'cat stalking a bird' scene, discussed in entry [P9] (and also in Phillips 2008, vol. 2: 14 [9]) and the 'leaping deer'. For the frescoes of this room see Stevenson-Smith 1965: 77-79, figs. 106-110.

\(^{539}\) Since these exotic and exotic-like or exotic-inspired items have been discovered in an elite environment (the 'Villa Reale'), they should be considered as luxury items.

\(^{540}\) For the reasons of modification of antiques, and for the value of antiques, see chapter Seven: 'Some observations on Egyptian and Egyptianising material unearthed on Crete and in the Archipelago', and the conclusions of the stone vessels in the Annex.
Alabastron [P145] is an originally Egyptian vessel taken to Crete, where it was modified according to local taste and needs. In Egypt such a vessel would originally contain aromatic oils or spiced liquids, but after its modification on Crete, its function must have changed.\textsuperscript{541} Even though vessel [P145] was discovered in the so-called 'Room of the Stone Vases' together with numerous other stone vessels, all the above objects were initially stored in the upper floor of the building, and fell there when the palace was destroyed.\textsuperscript{542} More Egyptian stone vessels were discovered there (from a LM II – IIIA1 context); among them alabastron [P146], an antique which was probably converted into a rhyton on Crete.\textsuperscript{543} Considering the palatial context, along with the ritual character of some of the finds discerned with [P145], it is obvious that exotica, exotic-like and exotic inspired items, other than being luxury items and artefacts of special value and use, often played a cult / ritual role.\textsuperscript{544}

A similar impression, with regard to exotica, is indeed gained from Kato Zakros, where, the local 'palace' probably functioned as the administrative centre for the eastern part of Crete.\textsuperscript{545} Minoan Egyptianising, Egyptian and Egypt-inspired artefacts were found in the 'Treasury' and the 'Hall of Ceremonies' in the palace, and elite 'House A'.\textsuperscript{546} The 'Treasury' functioned as a storeroom for a nearby palatial shrine, and its excavation produced a number of originally antique Egyptian vessels which received modifications on Crete, according to local taste: the spheroid jar / rhyton [P105], an Egyptian bridge-

\textsuperscript{541} See [§ modified exotica]. One can only hypothesise about the use of this vessel in its new environment, i.e. on Crete. The problem is discussed thoroughly in the catalogue entry [P145].
\textsuperscript{542} For an overview of the 'Room of the Stone Vases' see Evans 1902-1903: 36-37; PM II:2: 820-826; and for a reasonably up-to-date source see Driessen and MacDonald 1997: 142; Panagiotaki 1999: 181; Phillips 2008, vol. 2: 85-86 with further references.
\textsuperscript{543} For other Egyptian and Egyptianising artefacts from the Room of the Stone Vases see Phillips 2008, vol. 85-89: [144-149]. Overall, the Egyptian finds from LM II – IIIA1 context in the Room of the Stone Vases were an amphora or amphoriskos / rhyton (Phillips 2008, vol. 2: [144]), a bottle / vessel (ibid: [145]), a type A alabastron (ibid: 146), a closed vessel / footed bowl or 'sea urchin-shaped vase (ibid: [147]), an alabastron type C / animal head rhyton ? (ibid: [148]) and a closed vessel / amphora (ibid: [149]).
\textsuperscript{544} For other Minoan Egyptianising or Egyptian artefacts from Knossos, and in particular, the palace area, see Phillips 2008, vol. 2: 76-159 [131-320]. For Egyptian and Egyptianising items discovered in the 'Room of the Stone Vases' see Phillips 2008, vol. 2: 85-89.
\textsuperscript{545} See Platon 1962; 1971.
\textsuperscript{546} For Egyptian and Egyptianising or Egypt-inspired finds from Zakros, see Phillips 2008, vol. 2: 61-66.
spouted jar of the early Dynastic Period \[P104\]; \[^{547}\] and an Egyptian alabastron of the Second Intermediate Period. \[^{548}\] A Minoan lioness headed rhyton \[P107\] was also discovered in the 'Treasury'. Similar rhyta were discovered at Knossos (picture 81) and Thera.

The open vessel or bowl \[P241\] is also considered by Phillips to be an Egyptian antique which received Minoan alterations, according to Minoan taste (with the addition of handles, etc.). \[^{549}\] Similarly with \[P242\], an antique which was also reworked by the Minoans. \[^{550}\]

It is known that the Minoans used alabaster and veined white marble to produce clearly Minoan vessels. Other peoples, such as the Syro-Palestinians, also copied Egyptian alabastra. \[^{551}\] Therefore, occasionally, the origin of alabastra is problematic. Alabastron \[P269\] is most likely Egyptian, or, less likely, Minoan. Otherwise, it is an Egyptian vessel which might have received Minoan alterations. \[^{552}\]

Part of an Egyptian hydria or rhyton \[P281\], made of banded travertine, was discovered in the Minoan cemetery at Knossos. The 'Silver and Gold Cup tomb', in which the artefact was found, contained two burials. \[^{553}\] Not only did vessel \[P281\] derive from the tomb of someone reasonably wealthy, but it also demonstrates a cosmopolitan character:

\[^{549}\] Phillips (2008, vol. 2: 129 [241]) argued that the angular shape of the body is not found in Egypt. Therefore, the body has received Minoan alterations. See [§ modified exotica, § antique items]. For the tomb, see the references provided on entry \[P245\]. For other Egyptian / Minoan Egyptianising artefacts from the Royal tomb at Isopata, see Phillips 2008, vol. 2: 128-135 [241-259].
\[^{550}\] For other Egyptian / Minoan Egyptianising artefacts from the Royal tomb at Isopata, see Phillips 2008, vol. 2: 128-135 [241-259].
\[^{551}\] The Minoans occasionally imported the raw material (raw travertine stone) to manufacture their own vessels, such as a pilgrim's flask, jug and conical rhyton from Kato Zakros (Phillips 2008, vol. 1: 53-54; Phillips 2008, vol. 2: 142).
\[^{552}\] Phillips 2008, vol. 2: 142 [269]. The item can be considered an exoticum, if Egyptian; otherwise, it may be placed with the following categories: [§ modified exotica, § imitation, § replica?, § Egyptianising, § locally made, of foreign material § artefacts of foreign inspiration].
\[^{553}\] A silver and gold cup derived from the tomb context, along with stone bowls, clay bowls, jugs, jars, alabastra, an amphora, a kylix, etc. For the tomb see Hood & Smith 1981: 59 [324]. For other Minoan Egyptianising or Egyptian artefacts from Knossos, and in particular, the palace area, see Phillips 2008, vol. 2: 76-159 [131-320].
its shape could be considered Syro-Palestinian (or, otherwise, an artistic koiné); it was made in Egypt on the basis of its material and on technical grounds, but it was altered by the Minoans. The transcultural identity of the artefact is a product of craftsmen 'who had seen the world' and were aware of the local and international pottery trends, supply and demand.\textsuperscript{554}

The following two vessels from Katsamba were unmodified antiques in their context: a vase \([P115]\) made of diorite, and vessel \([P116]\) made of veined alabaster, both from the 'Tomb of the Blue Bier'.\textsuperscript{555} An Alabastron \([P252]\) (picture 76) from the Royal Tomb of Isopata, is also an antique in its context.\textsuperscript{556} The 'lekythion' \([P254]\) (picture 77) from the same tomb, made of banded travertine, appears originally Egyptian, though also an heirloom. The same applies to jug \([P248]\), which was not only an exotic luxury grave good, but it was probably associated with magical-medical beliefs. It is also an example of a replica of a replica and imitation of an imitation and a stylistic koiné: an Egyptian jug imitating a Cypriot jug, discovered on Crete and later copied by the Mycenaeans. Unmodified antique vessels should be examined along with other antique types of artefacts, such as the statue of User from Knossos \([P158]\).

Kernos \([P279]\) was unearthed in the The 'Pillar Crypt' at Knossos, the walls of which were incised with 'double axes'.\textsuperscript{557} The wall decoration and the discovery of the kernos and a large 'horns of consecration' demonstrate the religious function of the room.\textsuperscript{558} Even though kernoi were also manufactured and used on Crete, the kernos \([P279]\) is nearer to Egyptian parallels, as Minoan kernoi have carved decoration on their long

\begin{itemize}
  \item \textsuperscript{554} See [§ travelling professionals, § traders' (and other professionals') multiple careers].
  \item \textsuperscript{555} See also the inscribed amphora of Thutmos III \([P114]\) which derived from the same tomb.
  \item \textsuperscript{556} See [§ Antique artefact (or heirloom)]. For the tomb, see references on entry \([P245]\). For other Egyptian / Minoan Egyptianising artefacts from the Royal tomb at Isopata, see Phillips 2008, vol. 2: 128-135 [241-259].
  \item \textsuperscript{557} Human remains of about twenty individuals were discovered in the 'Pillar Crypt' (part of the 'Temple Tomb'), which had probably collapsed during an earthquake. Whether the 'Temple Tomb' demonstrates resemblance to Egyptian funerary architecture or not remains a matter of debate (see Jarkiewicz 1982: 491). For the site see also Evans 1930-1931: 191-1992; Hood and Smyth 1981: 58-59 [323].
  \item \textsuperscript{558} Phillips 2008, vol. 2: 146
\end{itemize}
Another Egyptian antique in its context is the spherical bowl [P143] from the South Propylaeum.\footnote{561} An Egyptian comparandum has been suggested for this vessel, but Lilyquist considers it Minoan.\footnote{562} Nevertheless, the handles look un-Egyptian and the vessel may have received Minoan modifications.\footnote{563}

Amphora [P93] was discovered in Tholos tomb I at Kamilari, a multiple burial of over four hundred people, the excavation of which produced a large number of finds. Four more clay amphoras of similar style were unearthed from the same context, and a few more from other Minoan contexts.\footnote{564} Through comparison with [P114], the amphoras are said by Levi and Cucuzza to have received Egyptian (?) stylistic influence on the base (pedestal); still, such a concept remains problematic.\footnote{565} One should add, however, that these amphoras were probably produced by the same workshop and served a cult / ritual role (offerings and libations).\footnote{566}

Kommos was a cosmopolitan Bronze Age port in southern Crete, demonstrating a climax of international relations in LM IIIA2.\footnote{567} The contexts, in which exotica were found, confirm that local wealthy households must have participated in international exchange.\footnote{568} Two items are discussed here: an Egyptian storage jar [P328] derived from a house of eight rooms, the excavation of which produced imported pottery of Egyptian,
Italian and other origins.\(^{569}\) Moreover, an Egyptian hemispherical bowl \([P340]\) was unearthed from a large, wealthy domestic area, which, after LM IA, displayed a certain international character, judging from exotica discovered on site.\(^{570}\)

A few examples from the Archipelago should also be discussed. The faïence vessel fragment from a conical rhyton \([P583]\) was discovered in Tomb A, near Kastri.\(^{571}\) The Egyptianising vessel shows that Kythera craftsmen received foreign artistic / technical inspiration, knowledge and raw materials from Egypt, possibly through Crete, and via travelling professionals.\(^{572}\) Another faïence vessel unearthed on Kythera (probably a conical rhyton), is said to be of Egyptian origin and must have reached the island indirectly, via Crete.\(^{573}\) The indirect connection of Kythera with Egypt, via Crete, is also shown throughout the study of \([P584]\).

With regard to stone vessels, a similar 'indirect' connection with Egypt is seen in the case of Thera.\(^{574}\) Akrotiri was a town with multiple storey houses. Sector Δ (D), in the middle of the excavated area, was surrounded by streets and squares. Rooms Δ2 and Δ17 produced frescoes.\(^{575}\) Jar fragment \([P585]\) from Δ17 reached the island via Crete. Phillips introduces the jar as follows: 'an example of Minoan stone vessel importation, abortive conversion and subsequent exportation'.\(^{576}\) The vessel must have served a ritual

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\(^{571}\) Tomb A consisted of a dromos, a large main chamber and three smaller chambers linked to it. It has been dated from MM IIIB (?) to LM I. For the site see Coldstream and Huxley 1972: 221, figs. 62-65; Phillips 2008, vol. 2: 274-275. Kastri must have functioned as a Minoan colony from EM IIB to LM I or II. In LH IIIA2 it was succeeded by the Mycenaeans. See Phillips 2008, vol. 2: 274 \([583]\) for a brief overview of the site and the item itself. The item is Egyptianising, made of foreign material. See \([§ locally made, of foreign material]\).

\(^{572}\) See \([§ networking, § travelling craftsmen (and other professionals)]\).

\(^{573}\) A fragment of a rim was found in tomb A, Cave at Kastri, in a MM II/ LMI context. Turquoise blue, with a dark blue band and with patches of light blue on the surface. The artefact is not discussed in this Catalogue in Appendix Three. See Coldstream and Huxley 1972: 228, fig. 83, pl. 68.

\(^{574}\) For Egyptian stone vessels from Thera see Warren 1979: 93-94; Devetzi 2000:125 \([5]\) 131-133 \([1]\) and Koehl 2006. The present author argues that the imported Egyptian material from Thera needs to be reconsidered in the near future.

\(^{575}\) Marinatos 1968-1976: VII: 13-15, 28, pls. 13-17, 43a-b, 44d, 46a, 51, 52d-e, 54c, 55d, 56a, 57a (frescoes).

\(^{576}\) Phillips 2008, vol. 2: 276. Note that the item was turned into a rhyton but it is not certain whether the hole was drilled by a Minoan or a Theran, according to Phillips. See also an Egyptian alabaster jar (Akr Exc. No. 3835) discovered in Delta Room 17, which dates Old / Middle Kingdom or eighteenth
purpose.\textsuperscript{577} Imported Egyptian 'kantharos' from Δ18a \textbf{[W Akr 1800]} also played a ritual role. One concludes that in Thera, as on Crete, elite households consumed foreign, exotic-like and exotic-inspired commodities.\textsuperscript{578}

\textsuperscript{577} Phillips 2008, vol. 2: 277
\textsuperscript{578} A similar impression is received from the Egyptianising frescoes at Akrotiri.
v) **Conclusions: vessels and containers: all materials**

1) **Generic conclusions about stone vessels**

As Phillips points out, only a small percentage, under 10%, of all Egyptian vessels types recorded by Aston, were imported to Crete or copied by the Cretans. The current author wonders why the Aegeans were so fastidious. Was it because the foreign aesthetics of these vessels were not appreciated by Aegean society? Was it because the usability of such vessels in Egypt was completely different to the purpose for which they were used in the Aegean? For closed vessels, did the content determine which containers were frequently exported, despite the vessel's style and type? Did the Aegeans have a large variety of indigenous vessel types, and therefore, only selected foreign imports were considered necessary? Or, even, the Aegeans had no option but get what they were offered by those who traded these items? In the author's opinion, a combination of these reasons may answer this question. The following concepts explain this notion:

The work of Phillips reveals that indigenous examples of stone vessels do not imitate Egyptian forms directly (e.g. the blossom bowl' type). Many locally-manufactured vessels are hybridised from different forms of Egyptian vessels and others are very distant to Egyptian models. Some were probably created to serve specific purposes and were not necessarily copied from foreign sources.

Moreover, the evidence seems to indicate that certain foreign vessel types were favoured more than others. Alabastra, for instance, number several foreign pieces on Crete, and were even copied in clay by Aegean craftsmen. Amphorae and miniature amphorae were also popular on Crete but the Cretans were happier to make their own amphorae than have them imported. It must therefore be recognised that at least with regard to close vessels, content and usability were valued more than the vessel itself.

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579 Phillips 2008: vol.1: 70; Aston 1994
580 Phillips 2008: vol.1: 70-71
After all, a container is simply an object that can be used to hold or transport something. As long as it does what is designed for, the shape - to a certain degree - will not matter. Yet, the shape can add to the merchantability of the content, and in effect, it is likely that in Neopalatial Crete alabastra became synonymous with 'highly-priced' exotic contents. That merchantability and synonymity with 'exotic luxury' added to the popularity of this vessel type within the Cretan elite; and as a result there was a demand for the original item (with the original exotic content) to be imported. Yet, the Cretans had a large variety of indigenous vessel types to cover local needs, and what was the purpose of importing a foreign vessel, when a locally-manufactured vessel could do exactly the same job? Unless of course the vessel was imported for another reason, and for economy, this foreign vessel was reused or converted. Lastly, but not least, the author would like to highlight the many vessel types that were in fact a koiné: they were designed with a very specific purpose in mind but the purposes themselves were commonplace. Thus, identifying the 'cultural identity' of a vessel on the basis of its traits is often a misconception, unless of course these traits are so unique that the vessel's cultural identity is explicit.

The author also notices that many imported genuine Egyptian and Cretan-(or off-Crete-)produced Egyptianising vessels discovered in the Aegean are useless for A-E chronological inter-linkages because of:

- mixed 'hybridised' vessel types,
- mixed archaeological context,
- no context / unknown context
- problematic origin
- the unknown timespan involved between the time that the vessel was made, used, transported and 'buried' in context.
- or simply because these items are antiques in their context.

The fact that 69 out of 246 vessels presented in Phillips' catalogue come from problematic or unknown contexts does not assist with the investigation.
In certain cases, Egyptian stone vessels discovered in the Aegean, similar to Egyptian stone vessels discovered in the Levant, could be linked to specific workshops.\(^{581}\) The same applies to Egyptianising vessels, made in the Aegean, or made elsewhere and then imported to the Aegean. Yet, there is a need for a major future study, which would comparatively discuss Egyptian and Egyptianising stone vessels discovered on Crete, strictly with respect to the workshops in which these vessels were likely to have been manufactured (whether on Crete or off-island).

2) Specific conclusions about stone vessels: Minoanisation of stone vessels

The following expands on the discussion in chapter Seven, providing some examples.\(^{582}\)

First, it is worth reporting that stone vessels were not the only items converted, but seals, scarab faces, beads, etc. occasionally received a similar treatment on Crete.\(^{583}\) Yet, as Phillips points out, the conversion of vessels is a Cretan phenomenon; a procedure that is not seen in the Levant or Cyprus. Some vessels were imported to Crete from Egypt, converted there and then exported to Thera and the Mainland.\(^{584}\) Phillips has grouped these items into the following categories: \(^{585}\)

- Type A: conversion to Minoan types and change of function and style (e.g. [P590])

- Type B: conversion of the appearance of the vessels but the function remains the same (e.g. [P104]).

- Type C: destruction of vessels and re-use – e.g. other objects made from the

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581 Lilyquist 1996
582 Chapter Seven: 'Some observations on Egyptian and Egyptianising material unearthed on Crete and in the Archipelago'.
583 e.g. oval plaque [P79], amulet / pendant [P245]; and tridacna shell [P217] which, according to Cline (1994), was converted into a rhyton.
584 Phillips 2008: vol.1: 80
585 Phillips 2008: vol.1: 81-85. One notices that a similar grouping has been done when foreign scarabs and stamp seals were converted on Crete. See this Annex: 'Scarabs and other stamp seals'.

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fragments of a vessel (e.g. [P219], [P37]).

Most converted vessels (13 out of a total of 38 pieces) date to Neopalatial Crete - particularly the time which corresponds to SIP and early eighteenth dynasty in Egypt - with few examples (8) from Final palatial contexts. The majority of converted vessels came from palatial and ritual contexts. Also, (9) converted vessels were found at Mycenae, in (elite) ritual, ceremonial and funerary contexts (e.g. [P586]). One piece ([P596]) was also discovered in Pylos.

Turning to Phillips, one finds that conversion took place in palatial workshops and from there, these items were redistributed to Mycenae. After studying the contexts of converted and reworked vessels, the present author also confirms that the conversion and redistribution of such items must have been primarily an elite and in fact, palatial phenomenon. However, as Phillips perceptively states, any converted vessels found in elite, but non-palatial contexts, could be the result of public enterprise.

Moreover, Phillips also rightly points out that stone vessels were reworked deliberately, in order for the converted products to serve specific purposes in Minoan society. The Minoans recycled these vessels, sometimes reworking them more than once ([P178]).

But why did Minoans convert and rework these vessels (and other items)? It seems to the current author that the following may be some hypotheses on the motives that encouraged the Minoans to do so, although the reasons for conversion are tailored to specific items and circumstances:

- simply to reuse them, for one purpose or another.
- they had to, due to recession.
- for practical reasons, i.e. the 'unreworked' vessel did not serve a specific purpose

587 Phillips 2008: vol.1: 86
588 Phillips 2008: vol. 1: 86
589 Phillips 2008: vol.1: 80, 86

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but the purpose was served after the vessel's modifications.

- for economy
- due to aesthetics – it is not certain that they liked certain foreign (or, old-fashioned) aesthetics
- hybrid and reworked forms become fashionable as modernisms
- because reworked items maintained their value, or, even, received a greater value than the unconverted items.
3) Conclusions about faïence, Egyptian blue and glass vessels

It is not certain that the technology of faïence was imported to Crete; yet, faïence imports may have added to indigenous technological knowledge and to the generation of enthusiasm about the material, considering that many faïence vessels (particularly at Knossos) were imported.\(^{590}\) Note on the spreadsheet, however, that many faïence vessels have a debatable origin, and could be Minoan. The limited pieces of 'Egyptian blue' from the island ([P238], [P443?], [P193]) indicate that the Minoans may have underestimated 'Egyptian blue' items. It is even likely that the difference between faïence and 'Egyptian blue' was not that well distinguished in the mind of the broader Minoan community.\(^{591}\) Phillips states that there was no Minoan glass vessel production.\(^{592}\) Indeed, since the vast majority of glass items from the Aegean date from the Final palatial onwards, glass should be better associated with the Mycenaean. The relatively low number of these finds (faïence, 'Egyptian blue' and glass) on Crete may indicate that there was no organised trade specialising in these items. The imported faïence vessels from Knossos could have been the result of 'palatial' diplomatic exchange; and any locally-made pieces, the result of a local workshop.

4) Conclusions about pottery vessels

Many examples from Kommos have Syro-Palestinian comparanda. Clay pots were imported to Crete from early eighteenth dynasty onwards, particularly from Thutmose III onward. To Phillips, these imports did not influence local manufacture.\(^{593}\) To the present author, the fact that such vessels were only found at Kommos highlights the strategic geographical 'trade' location of Kommos in the Final and End Palatial, when other urban centres on the islands had declined – and moreover, the monopoly of Kommos with respect to certain goods imported from Egypt and elsewhere. Some organised trade between Kommos and Egypt is suspected in the Final and End Palatial.

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590 See the discussion in the introduction and overview of the relevant group.
591 As it also happens nowadays in research: [P443].
592 Phillips 2008 vol. 1: 97-98, contra [K73] which is considered Minoan.
This trade involved imports of domestic pots (and often the content of closed pottery vessels), which was welcomed by the local elite.\textsuperscript{594}

\textsuperscript{594} This pottery is found in wealthy domestic contexts, as previously mentioned in the 'Time, space, context' of pottery vessels and containers.
II. Ostrich eggshells

○ Introduction

Ostriches are native to Egypt and the Sudan and in antiquity they were hunted for food, feathers and eggs.\(^{595}\) Their eggs are often associated with funerary contexts and the concept of afterlife.\(^{596}\) Eggshells were used for the production of jewellery.\(^{597}\) A magical-medical use of the eggs is also suggested.\(^{598}\) A variety of vessels made of ostrich eggshell were produced in Egypt and the Levant, from the early Second Intermediate Period onwards.\(^{599}\) At least six cases have been recorded so far at Tell el-Dab'a.\(^{600}\) Other such vessels date to the eighteenth dynasty.\(^{601}\) The Aegean also numbers a few examples of these peculiar rhyta, and fragments of ostrich eggshells have been recovered in several sites throughout Greece.\(^{602}\)

○ Overview

Natural fragments and artefacts of ostrich eggs discovered in the Aegean are imports from Egypt, Syria-Palestine or elsewhere.\(^{603}\) The earliest examples of imported ostrich eggshells, most likely from Egypt, date to EM IIB / III.\(^{604}\) Ostrich egg conversion to

\(^{595}\) On the ostrich eggshells in Egypt see the recent publications of Snape 2010 and Phillips 2009. For ostrich eggshells in Egypt and the Aegean see Phillips 2008: vol. 1: 148-152; 2009: passim.

\(^{596}\) Ostrich eggshells derive from Egyptian graves from Naqada I-III onwards. See Petrie and Spurrell 1896: 28.

\(^{597}\) For eggshell pendants, beads etc. see Gratien 1998.

\(^{598}\) Term swḥt nt nıw (= egg of ostrich) is identified as a medical ingredient by Behrens in LÄ VI.1:75, 76, n. 3. See also Karetsou et al. 2000a: 31 and Phillips 2008: vol. 1: 148.

\(^{599}\) For the Abydos example, which imitates the Type A flask alabastron, see Evans 1928: 223-6, fig. 120.

\(^{600}\) Van Den Brink 1982: 51-52, 83-89.

\(^{601}\) For examples see Hayes 1953-1959: II: 23.

\(^{602}\) For a list of these pieces, along with a short discussion of their context, see Phillips 2008: vol. 1: 149-152 and ibid, distribution maps 23-24. See e.g. [K18a,b], [P261], and [P216], [P277]. Other examples include two eggshells from room 16 at Thera (Sakellarakis 1979: figs. 1, 19), an egg from the East Shrine at Phylakopi (ibid: fig. 20-21; Sakellarakis 1990: 289, figs 20-21, converted into a rhyton), an example from Palaikastro (ibid: fig. 23), another from the Vat Room Deposit at Knossos and the one from Zakros (ibid: fig. 22). At least six more eggs come from Mycenae (ibid: 24-30, 41-43, Sakellarakis 1990: 289, figs 20-21). Some of these eggs and eggshell rhyta were painted.

\(^{603}\) Nubia (i.e. the modern Sudan), Libya also needs to be considered. Phillips discusses Ostrich eggshells individually in Phillips 2008: vol. 1: 148-152. The discovery of both ostrich eggshells and artefacts made of ostrich eggshells at Marsa Matruh demonstrates a possible Egyptian origin for some pieces unearthed in the Aegean (Phillips 2009: 333). See e.g. [P154].

\(^{604}\) See below, this group: 'Time, space, context'.

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rhyta is seen from MM II on Crete and becomes popular in LM I / LC I. Some examples of eggshells converted to rhyta were found off-Crete: Mycenae and Dendra (Mainland), Phylakopi (Milos), Akrotiri (Thera: see [K118a,b]).

- **Time, space, context**

Ostrich eggshells are found in contexts ranging from EM IIB/III to LH IIIC (the latter applies for the mainland).

- **Prepalatial (- Protopalatial transitional):** the following ostrich eggshells from Knossos, [P153], [P154] and [P155], all had a ritual use. Also, from Prepalatial - Protopalatial transitional Crete, [P154] and [P425] were both imported, but it is not certain that they came from Egypt. All examples were found in central Crete, except [P425], which was found in eastern Crete (Palaikastro), and, according to Sakellarakis, its function was possibly ceremonial.

- **Neopalatial:** the peak of the use of eggshells in the Aegean. The author observes that the majority (4 out of 5) were found in central Crete. All were imported but one, [P236], which is not technically an 'ostrich eggshell' rhyton as it was made of clay, but it imitated ostrich eggshell rhyta. Phillips notices that there is a concentration of examples at Knossos. To the present author, this concentration may be either due to the fact that Knossos is better excavated compared to other sites on Crete, or, because there was a special (possibly ritual) connection of the items with Knossos. In fact, many were most likely converted into rhyta or other vessels, as happened on the Mainland and Aegean islands at the time. [P108] from Kato Zakro had a ritual function.

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605 See, for example, the ostrich eggshell and faience rhyta [K18a,b] from Thera. See also Phillips 2008: vol. 1: distribution maps 23-24 for the distribution of ostrich eggshells on Crete over the course of time, and Phillips 2008 vol. 1: 148 (Phillips provides more examples from Crete).


608 Phillips 2008 vol. 1: 150 for the catalogue entry; Sakellarakis 1990: 289-290, 295, fig. 23, for the use.


610 Phillips 2008 vol. 1: 151-152. See the previous note for a few examples.

611 All Neopalatial examples but [P277].

612 Sakellarakis 1990 with examples.
• Final palatial onwards: any examples probably belong to the previous period instead. Decline of the eggshell rhyta.\footnote{This is observed by Phillips 2008 vol. 1: 152. No map is provided by Phillips for the Final Palatial or later periods.}

The group is 100\% represented on the spreadsheet,\footnote{Considering the pieces catalogued with a proper catalogue entry from Phillips, and not including the 'uncatalogued' ostrich eggshell fragments (probably also turned into a rhyton) from a Minoan tholos tomb reused in the Protogeometric B – Early Orientalising period from Khaniale Tekke (Hutchinson and Boardman 1954: 228, no 80).} therefore some 'safe' conclusions are allowed concerning the context: Items of this group usually come from elite (domestic or palatial) and ceremonial contexts. They almost never come from burials.\footnote{An exception is the rhyton mentioned in the previous note.}

○ \textit{Representative examples}

Two examples are provided here. The fragments of ostrich eggs [P153] and [P155] from the palace of Knossos may be seen as imports of luxury or cult nature. Their Egyptian origin is very likely, but not as yet proven.\footnote{The eggshells are Egyptian, Libyan or Syro-Palestinian, according to Phillips 2008, vol. 2: 89–91 [150-156].} From the same site derived a few more exotica; some of which are possibly Egyptian and / or Egyptianising.\footnote{These are likely to have derived from other Eastern Mediterranean or Anatolian areas.} Similarly, it is uncertain whether the raw material (ostrich eggshells) of the two rhyta from Thera [K18a,b] is Egyptian.\footnote{These are likely to have derived from other Eastern Mediterranean or Anatolian areas.}

○ \textit{Conclusions}

It is likely that ostrich eggshells and ostrich eggshell artefacts in the Aegean developed similar qualities and function to those in Egypt (i.e. funerary / medical / ornamental / ritual use).\footnote{See Phillips 2008, vol. 2: 90 [153], [155]. Since the fragments were found together with other Egyptian and Egyptianising finds, they should be considered most likely Egyptian. See also entry [K18a,b]. For the use of the ostrich eggshell rhyta as containers of pharmaceutics see Karetsou et al. 2000a: 138, with further references and examples from the Levant.} Two facts can be taken for granted. Certainly, as Phillips argues, such finds

\footnote{See for example the eggshell fragments [P108], from a ritual context (The 'Hall of Ceremonies', Kato Zakros) or that from the East Shrine at Phylakopi (a coloured picture is provided in Sakellarakis 1990: fig. 20, 21). A questionable imitation of an eggshell rhyton has been unearthed from the LH IIA Kalkani Tomb 518 at Mycenae (Phillips 2008: vol. 1: 151). The material itself may be associated with fertility rituals, only if one accepts that the 'fertility and afterlife' Egyptian concept, associated with the eggs, was transported to the Aegean.}
do not provide 'safe' transcultural chronological links. Second, these items are connected to the elite. It is presumable that the exchange of ostrich eggs and artefacts in the Eastern Mediterranean was an elite monopoly. Since there are numerous examples of eggshell artefacts from the Levant, the transport of these items to the Aegean via intermediate stations, in the form of trade / exchange of luxury items, should also be considered.

Since Eggshell rhyta were found beyond Crete, and the Cretans habitually turned ostrich eggshells into rhyta, some eggshells reached the Aegean islands and the Mainland, after their conversion into rhyta. Moreover, considering that a handful of ostrich eggshells are reported from Tell el Dab'a (during the Hyksos Period), one wonders if a special relationship between the Hyksos at Avaris and Crete promoted the technology and export of these items (and their ideology) to the Aegean. Alternative, the inspiration was Cyprus-initiated. Painted eggshells have been discovered in Cyprus: technological information could have travelled via Cyprus or even via Syria-Palestine. Even though some of the eggshell rhyta have been unearthed from contexts that are considered ceremonial, the nature of the ritual / cultic use of these unique vessels, and eggshell fragments, is only assumed. Any ideological suggestions for the symbolism of the eggshell fragments in the Aegean, and similar notions in Egypt - are simply hypothetical.

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621 This is demonstrated not only in the Aegean, where some examples derived from the palaces or at least house complexes belonging to the upper class (e.g. [P261], [P277] and [K18a,b]), but also in Egypt (see Snape 2010).
622 See [§ diaspora, § gateway].
623 See 'Overview' and Sakellarakis 1990. Also, [K118a,b] on the sheet 'Thera (Karetsou)'.
625 Moorey 1944: 127-128.
626 Phillips 2008 vol. 1: 152.
627 For the function and symbolism of the ostrich eggshells in Egypt see Houlihan 1986: 1-5 and the 'Introduction' of this group.
12. Pendants and amulets

○ Introduction

This discussion adds to the previously-mentioned examples of amulets and pendants, as certain items labelled as such have already been examined as part of the discussion of individual images (e.g. [P29] is discussed with the 'ape image' group).

Phillips does not examine pendants and amulets as a separate category.\footnote{628} After the study of the items, the current author is convinced that this is due to entirely practical reasons: It is sometimes difficult to tell if an object operated as an amulet or pendant, or even, something else (see e.g. [P417], which could be an amulet, a weight or a bead).

Pendants and amulets were popular in both Egypt and the Aegean.\footnote{629} They were used for ornamentation (i.e. as fashion accessories), identification (i.e. as cult symbols, sexual symbols, etc.), protection (i.e. as amuletic devices), self-affirmation and ostentation (i.e. as jewels, personal items to reflect status, power and wealth) or awards.\footnote{630} It is sometimes difficult to determine how exactly, and what for, these items were used.

○ Overview

Overall, Phillips classifies 20 items as 'amulets' or 'pendants', of various shapes, materials and manufacture.\footnote{631} Common shapes are naturalistic and include apes, birds and flies. Only 9 items are called 'pendants' with certainty by Phillips.\footnote{632} The rest:

- are not necessarily pendants (e.g. [P459] which is marked as 'pendant (?)' due to

\footnote{628} in Phillips 2008 vol. 1; although Phillips discusses beads separately in her publication: Phillips 2008 vol. 1: 140-147.

\footnote{629} For Egyptian amulets / pendants and jewellery see Andrews 1990; 1994. For Aegean pendants / amulets, see e.g. Laffineur 2010; Weingarten 2010, with further references.

\footnote{630} The possible use of the amulets / pendants discussed in this thesis is provided in the major catalogues (see individual entries and the spreadsheet).

\footnote{631} Phillips 2008, vol. 2. These are [P29], [P55], [P57], [P240], [P245], [P246], [P256], [P272], [P395], [P398], [P417], [P437], [P456], [P474], [P275], [P511], [P565], [P576], [P577] and [P582]. All these items are included on the spreadsheet.

\footnote{632} These are: [P28], [P57], [P395], [P474], [P475], [P476] (picture 123), [P577], and two items in [P582].
the lack of face design and horizontal perforation);\textsuperscript{633}

- could be either amulets or pendants (e.g. [P55] 'amulet or pendant');\textsuperscript{634}
- or, they could operate as something else instead (e.g. [P511]: 'seal or pendant', [P437]: 'weight, amulet or bead').\textsuperscript{635}

To conclude, the general rule that an item with a suspension hole is always a pendant should not apply, as such items could be beads, amulets or weights. Moreover, just because Phillips has not labelled certain items as 'amulets', the latter does not necessarily imply that certain items (e.g. scarabs, figurines and seals) did not bear an 'amuletic' (or better, apotropaic) value in the Aegean. Less than half of the entries described as 'amulet' or pendant' by Phillips are foreign, with the majority being Egyptian.\textsuperscript{636}

\begin{itemize}
  \item \textit{Time, space, context}
  
  Egyptian and Egyptianising amulets or pendants are found in contexts throughout the island (particularly in central Crete), and also in the rest of the Aegean (see e.g. [P577] from the Aigina treasure). Of the entries labelled as 'amulets' or pendants', some date to the Neopalatial, or Final palatial (e.g. [P256], [P246]), the majority date to the Prepalatial or Protopalatial (e.g. [P29], [P55], [P57], [K185], [P582]), and some are antiques in their context (e.g. [P240]). During the Prepalatial and Protopalatial period, the Minoans favoured foreign-like amulets and pendants of naturalistic style.

  The author notices that the majority of amulets and pendants come from tombs,\textsuperscript{637} excluding items that come from problematic or unknown contexts.

  \item \textit{Representative examples}

  The frog amulet from Koumasa [K175] is of problematic origin. The granulation

\end{itemize}

\textsuperscript{634} Phillips 2008, vol. 2: 36.
\textsuperscript{636} The number is approximate because the provenance of some items is debatable. E.g. [P245] could be Egyptian but [P246] is certainly Egyptian.
\textsuperscript{637} Based on the spreadsheet.
technique may be of Anatolian origin, but most likely the item was produced on Crete.\textsuperscript{638} It is certainly not Egyptian, though its production has received artistic inspiration from Egypt, where frog / toad amulets flourish, from the Predynastic period onwards.\textsuperscript{639} Another frog pendant from the Isopata tomb appears more similar to Egyptian models, yet it is probably Minoan.\textsuperscript{640}

In Egypt, toads symbolised fertility, recreation, and life after death.\textsuperscript{641} Egyptian amulets of frogs / toads are associated with the goddess Heqat. Moreover, the four male deities of creation were frog-headed to symbolise recreation from mud.\textsuperscript{642} Whether the functional and cult qualities of the frog image were transferred to Crete or not, remains only a matter of hypothesis. The author finds that the image of the frog, as reflected on the pendant from Koumasa \textsuperscript{[K175]} may be an artistic koiné.\textsuperscript{643} After all, the amphibian lived throughout the Mediterranean and the Near East and naturally, it was incorporated in art. Yet, she is not convinced that the style of the frog pendant from Koumasa was inspired by Egypt.\textsuperscript{644} This is because, contrary to \textsuperscript{[K175]}, frog and toad-shaped amulets in Egypt were very schematic from the Twelfth to the eighteenth dynasty, and demonstrated hardly any naturalistic detail.\textsuperscript{645}

\textsuperscript{638} Note that the famous bee pendant from Malia (picture 52) also demonstrates the technique (Hood 1978: 195, fig. 191; Dimopoulou-Rethemiotaki 2005: 308). See also the Aigina Treasure pendant in Hood 1978: 196, pl. 193. The granulation technique was also used in Egypt; see, for example, the twelfth dynasty amulet in Karetsou et al 2000a: [181] (P.B.), of unknown provenance, or the amulet in Lilyquist 1994: 37. The Karetsou catalogue (2000a: 187 [175] (M.P.)) calls it Anatolian.

\textsuperscript{639} See \cite{artefacts of foreign inspiration}. For the Egyptian frog-goddess Heket see Hard 1986: 76. For the frog amulets in Egypt see Andrews 1994: 63 and figs. 45h, 93b, 54b, 28h. The reason that the amulet is not Egyptian is the granulation, the naturalistic detail and the fact that the suspension hole is cut along the length of the horizontal axis (such suspension is not the norm for Egyptian amulets of simulation according to Andrews 1994).

\textsuperscript{640} From Crete, see Karetsou et al. 2000a: 187 [176] (E.M.). The two examples of frog amulets / pendants show artistic influences from Egypt to the Aegean \cite{artefacts of foreign inspiration}.

\textsuperscript{641} Andrews 1994: 63 examines the cultural aspects of the amulets simulating frogs and toads. The items were used to furnish the mummy and as jewellery (mainly on rings). See also the Egyptian frog-goddess Heket in Hard 1986: 76.

\textsuperscript{642} Andrews 1994: 63

\textsuperscript{643} \cite{koiné}

\textsuperscript{644} An explanation: The idea for the creation of such an item could have been inspired by Egypt, or be a local inspiration, derived from the observation of the amphibian on Crete. Either scenario is possible.

\textsuperscript{645} See e.g. amulets UC38486 (twelfth dynasty), UC38490 (eighteenth dynasty), on the Petrie Museum online catalogue (http://petriecat.museums.ucl.ac.uk/default.aspx). Also, the media were different, with Egyptian frog and toad shaped amulets made from various types of stone (even precious stones), and faience.
The gold falcon or hawk in entry [P576] (pictures 8-10) recalls the Egyptian iconography of Nekhbet; the female deified vulture, protector of Upper Egypt and patron of the Egyptian rulers.646 Even so, the position of the wings and the depiction of the head in [P576] are problematic and do not demonstrate Egyptian norms.647 Fitton provided a close comparandum for this artefact; a pectoral from the tomb of Queen Ahhotep; i.e. she debated a possible Egyptian or Hyksos origin.648 As the find context is unknown, only estimations can be made about the item's exact origin. If derived from outside the Aegean, it may be seen as a modified exoticum.649 Judging from the item's elaborate material and technique, this must be considered a luxury item.

646 Horus, the Egyptian god and divine protector, was also falcon-headed but the image demonstrated on the pendant better recalls the Nekhbet iconography, rather than the Horus one (for Horus see Hart 1986: 70-76; for Nekhbet see ibid: 101-102). The 'Eye of Horus' or Wedjat pendant iconography, where Nekhbet (e.g. see Andrews 1994: pl. 46, top left or the wedjat eye pectoral from the Tomb of Tutankhamun (picture 102)) was the counterpart, very distantly recalls the image of [P576] (pictures 8-10), since the wings of the bird are placed differently; the head, the body, etc. are typically Egyptian in the case of the wedjat pendant.

647 In the Egyptian norm the wings are either placed in the horizontal axis of the figure (e.g. nekhbet from the temple of Hatshepsut at Deir el-Baher seen in Robins 2008: 127, pl. 140, with wings outstretched), or at an angle of 90° - right wing facing down, left wing facing straight left (clockwise, right wing: half past, left wing: a quarter past), such as the vulture depicted in the temple of Hatshepsut in Thebes (coloured picture on http://www.flickr.com/photos/peterjr1961/5608267965/, last visited on the 25th of March 2014) or the vultures from the pectoral of Ahhotep from Dra Abu El Naga (see Aldred 1978: pl. 39; Andrews 1990: fig. 15); or even a protective manner, similar to [P576], but at a close angle (clockwise: right wind: twenty five to, left wing: twenty five past) such as the vulture depicted in the temple of Medinet Habu (depicted in high resolution and in colour on the public domain: http://www.flickr.com/photos/sonomapicman/5761940529/#/photos/sonomapicman/5761940529/lightbox/, last visited on the 25th of March 2014). In the case of the wedjat (see note 646), the wings of the bird are placed at an angle of 80°, but the position of the wings is still different to [P576] (clockwise: right wing: twenty past, left wing: ten past). The head in [P576] is seen by the artist as a 'beautified' continuation of the body, contrarily to the Egyptian iconography, in which the head is clearly distinguished from the body.

648 Fitton 1994 (in Vienna 1994). This comparandum is seen in Aldred 1978: pl. 39 and Andrews 1990: fig. 115. The tomb dates the end of the seventeenth dynasty; the item is made of gold cloisonné, with coloured stone inlays. It was probably made for the coronation of her son Ahmose, who founded the eighteenth dynasty. Fitton also tried to connect the artefact with the 'Aigina Treasure (for the 'Aigina Treasure' see the following pages). Nevertheless, in Meletes (Karetsou 2000b), she suggested a Cretan origin (See Karetsou et al. 2000a: 189 [182] (L.F.)), also adding that the head is clearly un-Egyptian.

649 Fitton in Karetsou et al. 2000a: 189 [182] (L.F.) argued that the item has been modified on Crete, possibly to be used as a pendant. Phillips seems to agree with this concept; and so does the author of this thesis (the author has handled the artefact at the British Museum). The falcon or hawk was attached to another piece of jewellery, as tiny holes are distinguished on the wing and toe. A hook was probably attached to the top of the right wing [§ modified exotica]. The symbolic qualities and usage of the item in the Aegean remain unknown.
The silver statuette / pendant from Prophetes Helias [P271] is considered Minoan or Egyptian by Phillips.\footnote{Phillips 2008: vol. 2: 143.} In Egypt, dwarf figurines were sometimes placed in tombs in order to serve the deceased.\footnote{See, for example, the limestone statue of a male dwarf from the Old Kingdom tomb of courtier Nykaunipu, Fifth dynasty, Giza Egypt (Oriental Institute of the University of Chicago). http://www.flickr.com/photos/mharrsch/3879673096/#/photos/mharrsch/3879673096/lightbox/ (last accessed: 14-04-2014).} The correlation of this figurine with Bes is problematic due to date and style.\footnote{Hood 1971: 225; Karetsou et al. 2000a: 190. Phillips notices that the Ailias (Prophetes Helias) figurine is not inspired by Bes since the Bes figurines of the Middle Kingdom were more leonine-like (Phillips 2008: vol. 2: 143 [271]). Moreover, as the author observes, the Ailias figurine does not demonstrate the theriomorphic characteristics of dwarf-like Bes. For the Egyptian deity Bes, linked to fertility and sexuality, see Hart 1986: 49-50. Moreover, any comparison with Third Intermediate Period amulets of pataikos is pointless, due to chronological differences. For amulets of Bes and pataikos see Andrews 1994: 39-40: figs. 36-37.} The figurine also recalls the eighteenth dynasty amulets of Ptah-Sokar, according to Phillips; or even the 'dwarfs of the divine dances'.\footnote{Both correlations with the Ptah-Sokar amulets and the 'dwarfs of the divine dances' were suggested by Phillips 2008: vol. 2: 143 [271]. The similarities with the Ptah-Sokar amulets are particularly obvious in the position of the hands. For Ptah-Sokar see Hart 1986: 128-129. See these amulets in Petrie 1914a: 38 [176. A. pl. XXXI: 176: c-e; Dothan 1979: 24, figs. 49, 57. For the Central African 'dwarfs of the divine dances' see Barnett 1982: pl. 7a.} This author finds that what the figurine depicts is probably a toddler.\footnote{Based on what she can see on the coloured picture in the catalogue of Karetsou, as the author of this thesis has not handled this item.} A fertility / sexuality / afterlife symbolism is possible and, if the artefact is Egyptianising or inspired from Egyptian models, one distinguishes transference of ideology, art and culture.

The Minoan Egyptianising scarab [P270] and, most likely, an Egyptian Middle Kingdom amulet of a fly [P272] were found in the same tomb as the previous item.\footnote{For the scarab (Phillips 2008, vol. 2: 142: [270]; for the fly (Phillips 2008, vol. 2: 143: [272]. The artefacts were found in tomb VII in Prophetes Helias (Ailias). The context of the fly amulet is very problematic. For fly amulets in Egypt see Andrews 1994: 62-63.} An EM III-MM IA seal in the shape of a fly was also found in Archanes, Fourni (picture 78). In Egypt, fly amulets symbolised courage, and they were offered by the
Pharaoh to his generals for their services in battle eighteenth dynasty onwards). However, as the amulet was found in a MM III context, any association with the Egyptian 'Order of the Golden Fly' is problematic. Andrews has argued that fly amulets protected the corpse from the flies hatching their eggs on the body of the deceased (in the form of the Egyptian s3 hypostasis). Moreover, such amulets magically functioned as insect repellents for the living ones. Considering flies are caries of diseases, the present author links fly amulets with protection against illnesses such as malaria; therefore, their amuletic use in both Egypt and the Aegean may be associated with magical-medical beliefs. Since malaria thrived in prehistory, the demand for these items must have been large, with the possibility that the item was 'merchandised'. Otherwise, the item was clearly ornamental on Crete.

Pendants simulating body parts or organs (lower leg with foot, arm with fist, heart, etc.) have been discovered on Crete, e.g. [K185] or (picture 51). These may be compared to similar Egyptian amulets, of magical / medical / therapeutic and funerary use. In Egypt, these items were used to restore one's power of movement and magically

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657 Unless, of course, the practices of the Order of the Golden Fly were initialised a lot earlier, or the context is not recorded properly / the context is later than estimated.
658 Andrews 1994: 63
659 Andrews 1994: 62
660 i.e. the item was a 'trade' product.
661 The possibility that the amulet / bead was part of a necklace or bracelet, without any specific symbolism attached to it, cannot be ignored. Phillips has suggested that the item reached Crete as part of a pendant (Phillips 2008: vol. 2: 143 [272]). A seal from Archanes ([P51] / Karatsou et al. 2000a: 192 [187] (Π.Σ.)) is fly-shaped.
662 For a number of examples of pendants in the shape of body parts (mainly foot pendants) from Cretan tombs see Xanthoudides 1924; Sakellarakis and Sakellaraki 1997: 638; Bosanquet and Dawkins 1923: 149, fig. 133). See also the golden heart-shaped pendant from Haghia Triadha in Karatsou et al. 2000a: 187 [177] (M.K.). For heart shaped amulets in Egypt see Andrews 1994: 72-73. For leg and foot pendants in Egypt, with further references and examples, see Andrews 1994: 71-72.
663 See Andrews 1994: 69-73. They were offered to deities in return for good health, they were worn against diseases and to regain health after an accident and they were also used as grave goods.

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rehabilitate health and soundness of limb, in both life and afterlife. They were also placed underneath the mummy wraps, to protect the mummified body and / or replace a lost body part. In the Aegean, similar items received a magical / therapeutic or ritual significance and use.

- Conclusions

It is not always easy to confirm how exactly an 'amulet' or 'pendant' operated, unless it is almost certain that the item was part of a 'larger composition', such as the pendants from the Aigina Treasure (e.g. [P577], [P582]). Even in this case, however, there is some uncertainty about the individual elements of such a composition. For instance, were the owl-shaped pendants of [P578] deliberately chosen by the craftsman, for their symbolic value, or for their artistic elegance?

Foreign and foreign-like amuletic devices from the Aegean often have a hypothetical symbolism in modern research, considering that an item's value and symbolism is 'shaped' in the eyes of the beholder. Thus, the apotropaic value of an exotic amulet in the Aegean is not necessarily the same to the value that the item had acquired in its original environment, before its transportation. Distance and time may alter the symbolic value of an item. Yet, the fact that many of these objects come from tombs demonstrates that, foreign and foreign-like amulets and pendants played an important role in the owner's life and afterlife.

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664 Ibid: 69. Particularly in the Old Kingdom and First Intermediate Period, but also later. Example: If the deceased had a bad leg in his lifetime, he needed a 'brand new' leg (or pair of legs) to use in his afterlife. The amulet of the foot would replace the bad or missing limb. Additionally, if the deceased's leg (or any limb or organ) was damaged or went missing after an unsuccessful mumification, then the amulet of the limb or organ would replace the actual body part and give the deceased health and limb soundness in his afterlife (limb health and soundness in the process of reaching afterlife is particularly highlighted in the Book of the Dead, e.g. chapter XI, XXVI, etc. and in the Osirian mythology: Isis resurrecting the dismembered Osiris).

665 See [§ networking]. Many of these Bronze Age Aegean pendants have derived from burials and tombs. Similar modern amulets and pendants (τάματα), in the shape of body parts, are used in modern Greek orthodox religion for rehabilitation. These are offered to the Saints for the purpose of healing: e.g. a leg with foot amulet is offered for the healing of a leg or foot, a pair of eyes for the healing of the eyes, etc.
13. Aigina treasure

○ Introduction

The Aigina treasure consists of jewellery of worked gold and precious gems, and a gold cup.\textsuperscript{666} It was acquired by the British Museum in 1892. Higgins first argued that the treasure originated from Chrysolakkos on Crete.\textsuperscript{667} However, he later stated that the treasure, though Minoan, was found at a cemetery north-east of Cape Kolonna, in a Mycenaean tomb.\textsuperscript{668} The site was excavated and more tombs were discovered, compelling Higgins to reconsider that even though the site was Mycenaean, some Minoan emigrants lived there.\textsuperscript{669} During the British Museum congress (21-22 November 2000), it was generally agreed that the 'treasure' was made on the island of Aigina and it did not derive from Crete. Moreover, it was decided that the treasure came from more than one burial.\textsuperscript{670}

○ Representative examples

Two Egyptianising artefacts of the Aigina treasure are presented here as representative examples. The 'Master of Animals' pendant \textsuperscript{[P577]} (pictures 11-13) is distantly related to Egypt.\textsuperscript{671} The theme may be associated with the Egyptian tomb iconography of 'hunting scenes'.\textsuperscript{672} The repoussé discs and birds can also be seen in artefacts from

\begin{footnotesize}
\begin{enumerate}
\item It included old diadems, hoops, beads and pendants, a pectoral, a bracelet, finger-rings, strips and plaques. See \textsuperscript{[P777]} to \textsuperscript{[P581]}. They were made of such materials as rock crystal, amethyst, carnelian, green jasper, and lapis lazuli. The cup is BM 1892.5-20.1 / BMJ 768. For the background of the acquisition and study of the Aigina Treasure see Williams 2009.
\item Higgins 1957; see Stürmer 1993 for the site (Chrysolakkos is situated near Malia, on Crete).
\item Higgins 1979: 51-54
\item Higgins 1979: 53
\item The proceedings of this congress were the edition of Fitton (2009). On the basis of the diadems, the graves belong to at least two women and a man. For the sale of the treasure to the British museum; and further details about its acquisition and study, see Phillips 2008: vol. 2: 272.
\item Phillips 2008: vol. 2: 273 [278]; See also Markovitz and Lacovara 2009: passim; Schiesit 2008: passim, Aruz 2009; passim. Egyptian influences are seen in the lotuses, the use of the flat-ground plane, the pose, style and attire of the figure; the two antithetically placed birds. See \textsuperscript{[§ Egyptianising]}
\item The balanced relationship between people and beasts was a common theme of tomb iconography from the Predynastic Period onwards, e.g. the hunting scenes from the tombs of Menna \textsuperscript{[M1006]} and Nebamun (TT 69 and TT 181). For 'Nilotic Scenes' see chapter Three: 'Egypt to the Aegean'.
\end{enumerate}
\end{footnotesize}
Chrysolakkos [§ repoussé]. The pendant is elaborately made and it is a luxury item (a gift maybe?). The artefact is an artistic conglomeration. To the author, it represents perfectly the international artistic style, as it combines a variety of Eastern Mediterranean and Near Eastern cultural and artistic elements, blended together through networking, travelling artisans, the circulation of products and the contribution of craftsmen in gateways and diasporas.

The elaborate hoop [P578] (picture 25) demonstrates similarities with [P577], [M1002] and other items. It belongs to a group of four identical pieces, all at the British Museum. The item's Egyptianising character can be seen in the image of a pair of apes, depicted back-to-back, similar to [P459].

○ Conclusions

Younger, reviewing the edition of Fitton (2009), has drawn attention to the fact that the items of the treasure are not a 'coherent whole' in date and technique. Both the edition of Fitton (2009) and Younger (2010) rightly point out how all the items of the 'treasure' manifest the so-named international style. Such an international style - in effect, an amalgamation of foreign artistic fashions and local traits - is also observed by the author of this thesis, who has seen part of the treasure displayed in the British Museum. The Aigina treasure reflects how 'open' Aegean craftsmen were to foreign influences – and how popular were 'international style' items in the Aegean.

673 see Chittenden 1947; Higgins 1979: 24, fig. 13 and [P578].
674 See [§ networking, § gateway, § diaspora].
675 See, for example, Phillips 273-274 [579-581] and their references and comparanda; and the golden pendant of a wild goat in the British Museum, GR 1876.5-13.1, Jewellery 815 in Higgins 1979. More comparanda are provided on the spreadsheet [P578] and in Phillips' catalogue. It should be mentioned that a pair of dogs is also depicted in [M1002], the dog pendant from Tell el-Dab'a.
677 Younger 2010: book review (online).
14. Miscellaneous items

- Representative examples

The sphinx-plaque from Malia, Quartier Mu [K33] (pictures 64-66) is produced on Crete but it may have been inspired by Egypt (?) or elsewhere [§ sphinx]. Even though the sphinx is wingless (typical of Egyptian sphinxes), the head, beard, tail and posture are totally un-Egyptian. The excavation of Quartier Mu produced domestic areas and workshops (for seal-making, metal working and pottery). One wonders if the vessel, to which the item was attached, was manufactured in one of these workshops.

A Minoan lid with fine appliqué decoration [P375], manufactured locally, but influenced by Egyptian (?) artistic trends, was also discovered. It is possible that local workmen received Egyptian (and generally foreign) influences and inspiration.

Three plaques of glass from the Palace of Knossos [K78a-c] (pictures 42-44) are said to be made of imported Egyptian glass. One notices that any items of glass, unearthed

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678 See also [P374].
679 Recumbent Egyptian sphinxes are indeed wingless, having the body of a lion and a human head. Nevertheless, the head, face, beard and tail of the Quarter Mu example is totally un-Egyptian, to the point that the Egyptian influences on the item are very problematic. Egyptian sphinxes generally demonstrate a long curly tail resting on rear or hind legs. The beard of Egyptian sphinxes is of medium length, and somehow squared, the head and facial characteristics are clearly Egyptian and the royal head-dress is worn. None of these typical Egyptian characteristics are shown in the case of the quarter Mu example. On the contrary, the head is typically Minoan (with the characteristic wavy hair of Minoan profiles), the tail and beard are very sort and un-Egyptian, no head-dress is shown; even the posture of the creature is un-Egyptian. For examples of Egyptian sphinxes see Stevenson-Smith 1958: 65, 90, 114, 126, 148, 193, 240, 260-261, 272, 287, 294-295. The concept of the sphinx was a pan-Mediterranean artistic phenomenon [§ koine].
680 The item was found in Domestic-Building D, a small-rectangular structure resembling a storage-working area of a larger house (Phillips 2008: vol. 2: 190). For the production in the elite households of Quarter Mu see Schoep 2006; 2010: 114, 116, 117, 122 and chapter Two: "The economy of Crete and the Archipelago". See also Watrous 2001: 199, and the publication of Pursat and his colleagues on the excavation of Quarter Mu: Detourney et al. 1980.
681 A comparison of the lid with one of the spinning disks from the tomb of Hemaka demonstrates that the lid was of possible Egyptian inspiration. The motif may also be associated with the Nekhbet vulture, when artistically depicted with spread wings. See entry [P375] for details and further references.
683 Minoan artefacts, of Egyptian material (and technology?). See [§ locally produced, of foreign material].
in the Aegean, are particularly associated with the elite.\footnote{684} The author has referred to the Egyptian role in the Aegean glass technology above, with the examination of the vessels.\footnote{685}

Room V of House Z-β at Malia functioned as a workshop. An appliqué [P374] was found in the domestic workshop's destruction context.\footnote{686} It is difficult to explain how this Egyptian? / oriental item reached Crete. The item was part of a piece of furniture, most likely imported from abroad in order to highlight the elite status of the owner.\footnote{687} It may have reached Crete via intermediaries or as a gift or souvenir.\footnote{688} Nonetheless, its itinerary remains entirely hypothetical.

The lotus blossom and buds [K81a-c] also decorated some piece of furniture. It is not known if the symbolism of the lotus flower was similar in both Egypt and the Aegean.\footnote{689} Since the item was unearthed in the palace, it may be associated with the local elite. The item should be seen together with the Nilotic scenes.\footnote{690} When the trend of 'all-things-Nilotic' reached the Aegean, it inspired Nilotic elements not only in painting but also in other artistic media.\footnote{691}

The elephant tusk from Zakros [K115] is likely to be an item of trade or gift-exchange. Platon considered it Syrian in origin.\footnote{692} In Egypt, ivory was used for the production of a variety of items, from jewellery to small furniture.\footnote{693} One is surprised to see Keftiu

\footnote{684} See [§ luxury item].
\footnote{685} See the discussion of [P101] with the group 'Vessels and containers'.
\footnote{686} Bronze tools and implements were discovered on-site. Phillips 2008, vol. 2: 187-188.
\footnote{687} See [§ exotic].
\footnote{688} See [§ gateway, § luxury items, § gift exchange, § souvenir].
\footnote{689} For the Egyptian symbolism of the lotus flower, along with its usage, see entry [K81a-c] in the catalogue. For other Minoan Egyptianising or Egyptian artefacts from Knossos, and in particular, the palace area, see Phillips 2008, vol. 2: 76-159 [131-320].
\footnote{690} See chapter Three.
\footnote{691} See chapter Three: 'Egypt to the Aegean'. See also, the waz-lily pendant in Karetsou et al. 2000: 105 [82] (M.II.).
\footnote{692} Platon 1962: 161, table 160 a,c. It was found together with three more ivory tusks (smaller in size) and some copper ingots. Platon states that the tusks belong to a Syrian type of small elephant.
\footnote{693} See Krzyszkowska and Morkot (2000). Elephant and hippopotamus ivory was in such demand that it was occasionally imported to Egypt from nearby locations. Certainly, the Egyptians recirculated ivory in the EM, in the form of raw material and finished products.
porters offering an ivory tusk to the Egyptian court, on the wall-painting of the tomb of Rekhmire. It appears that the Aegeans imported foreign raw materials, in order to process them into finished items and redistribute them abroad. Raw materials and finished products were re-circulated in the EM, possibly via Syrian-Aegean commercial agents and intermediaries.

Sistrum [P53], from the burial of a child (?), demonstrates the Egyptian sistrum type (the arched rattle type with closed frame). Six sistra from Hagios Charalambos (picture 85), recently discussed by Betancourt, can be compared to [P53]. Similar arched rattle Egyptian sistra are sometimes mentioned as sḫm in the Middle Kingdom texts, but they do not appear in the archaeological records before the New Kingdom; to the point that, Phillips even suggests that the Minoan type of sistrum may have inspired the Egyptian one. In Egypt and the Aegean, sistra were not only musical instruments but were also associated with magical, religious and erotic beliefs and rituals.

One of the most impressive Egyptianising artefacts from Crete was discovered at Palaikastro. The so-called 'Palaikastro Kouros' [K294] (pictures 96-98) is a unique creation, combining local and Egyptian materials, artistic, technical, cult and cultural elements. The item demonstrates that the transference of technological knowledge went hand-in-hand with the exportation of high value exotic material, possibly due to

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694 See chapter Six for the Aegean processional scenes, and the spreadsheet: Aegean processional scenes: 'Raw materials: ivory tusks'.
695 See [§ gateway, § diaspora].
696 Burial building 9, Southern room has given 172 burials in total. The context is discussed in Phillips 2008: 35. The Eastern type of sistrum demonstrates an open frame. Similar sistrum to [P53] existed in Egypt. Egyptian sistra are of two types: a) rattle squared sistrum, b) arched sistrum. For the types of Egyptian sistrum see Ziegler 1979: 31-62; LÅ V: 959-965.
697 For the six sistra from Hagios Charalambos, currently stored at the Hagios Nikolaos Museum, see Betancourt 2011: 2-3, fig. 3: HNM 13.976 and HNM 13.984.
699 The sistrum is usually defined as  sšš.t in Egyptian (for the term and its variations see Wb 1, 61.1; Wb 3, 486.19-487.6; Wb 3, 487.7-8; Wb 3, 486.19-486.6; Wb 4, 251.18-252.7; Wb 4, 252.9). In Egypt it was particularly linked to the cult of Hathor and her son, Ihy, but eventually it entered the cults of other deities such as Amon, Baster and Isis. It was also connected to erotic and fertility beliefs (see Zieglerv 1979). In the Aegean, it was probably seen as a musical instrument, associated with religious rituals (e.g. see the 'Harvester vase' from Haghia Triadha in Forsdyke 1954).
700 See MacGillivray, Driessen and Sackett 2000. More information and references about this artefact are provided on the spreadsheet.
itinerant craftsmen who carried their skills from place to place.\footnote{701} Two LM IB figurines from Block Σ at Palaikastro [K295a,b] (pictures 60-63) also bear some Egyptianising features, but they were produced on Crete.\footnote{702}

Also, the author should make a brief mention on the clay models of buildings, such as the Monastiraki model.\footnote{703} Even though clay models of buildings are an Eastern Mediterranean and Anatolian koiné (i.e. they were produced in Syria-Palestine, Egypt, Cyprus, etc.), a particular example, the Kamilari model house [K43], may be distantly connected to the Egyptian soul houses, since it was found in a tomb.\footnote{704}

Lastly, in 2013, Weingarten discussed a hard stone seal from House Tomb 2 at Petras, dated to MM IIB.\footnote{705} The seal depicts a figure similar to the Egyptian Beset, the female counterpart of Egyptian god Bes.\footnote{706} Weingarten notices that this Minoan figure, which is depicted frontally, has common traits with Beset: lion ears, raised arms bent at the elbow, separated legs, pendulous breasts, a lion’s tail, and interaction with a snake. Yet, the pubic area is hidden.\footnote{707} While research on this image is still ongoing, the author of this thesis feels that a comparative study, examining issues of gender in the images of Taweret and Beset and their Minoan versions, would be well received.

**Conclusions about Aegyptiaca unearthed in the Aegean**

Some collective remarks on the Egyptian(-ising) material unearthed on Crete and some Aegean Islands, and on the mechanisms of production and circulation of these items, are provided in chapter Seven.\footnote{708}

\footnote{701} See [§ travelling professionals].  
\footnote{703} See Karetsou et al. 2000a: 63-64 [41] for the temple model from Monastiraki (Rethymnon Museum 7612). Other similar models from Crete can be seen in Dimopoulou-Rethemiotaki 2005: 82, 83 (illustration of a Minoan two-storey building from Archanes and clay model of the façade of a two-storey building, from Knossos).  
\footnote{704} For the Egyptian soul houses see Niwinksi 1975: 74-112. For the Kamilari model, see [K43].  
\footnote{705} Weingarten 2013 for the seal in question. For the site and the preliminary report of the seals see Krzyszowska 2012.  
\footnote{706} For Bes and Beset see Hart 1986: 48-50.  
\footnote{707} For this seal see Weingarten 2013: 372, 374; and particularly figure 4 in page page 376.  
\footnote{708} See chapter Seven: 'Some observations on Egyptian and Egyptianising material unearthed on Crete and in the Archipelago'.

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Part 3.  Aegean and Aegeanising items unearthed in Egypt

○ Introduction and overview

The most frequent Aegean(-ising) archaeological finds in Egypt are ceramics. In general, Aegeaca / Minoica discovered in Egypt are limited compared to Aegyptiaca discovered in the Aegean. However, the early eighteenth dynasty Aegean processional scenes in Thebes demonstrate the variety of artefacts transported from the Aegean to Egypt.\textsuperscript{709}

First, a number of Aegean and Aegeanising portable artefacts will be discussed, in order to promote the understanding of Egyptian - Minoan relations from the Egyptian point-of-view. The main focus is placed on Minoan material but there are items bearing both Minoan and Mycenaean traits, or those demonstrating similarities with Cycladic comparanda, for which the term 'Aegean' may be more suitable, as it covers a wider geographical area.\textsuperscript{710}

○ Time, space, context

Both Middle Minoan (Kamares) and Late Minoan pottery reached Egypt. Minoan pottery was also imitated by Egyptian craftsmen, to various degrees: from Minoan forms to Minoanising painted decoration.\textsuperscript{711} Protopalatial Kamares ware has been unearthed from Middle Kingdom contexts. Late Minoan post-Kamares ceramics have derived from the Second Intermediate Period and early New Kingdom contexts.\textsuperscript{712}

When studying Minoan pottery from Egypt, along with its locally produced imitations, one notices that Late Minoan pottery examples are fewer in number than Middle

\textsuperscript{709} See chapter Six and the spreadsheet: 'Aegeans in the Theban processional scenes'.
\textsuperscript{710} e.g. sherd from Abydos tomb 328.A.07 in Kemp and Merrillees 1980: 232 or the pendant from Tell el-Dab'a \textsuperscript{M1002}, which manifests a wider 'Aegean' character, along with the Minoan one. The author will not discuss chronological considerations deriving from the examination of Minoan / Mycenaean pottery from Egypt.
\textsuperscript{711} See e.g. \textsuperscript{KM KA.20} and (table 48). See also Barrett 2009: 223-226.
\textsuperscript{712} Barrett 2009: 212-216 and (table 48).
Minoan examples. Judas states that the scarcity of LM II / LH II pottery from the Aegean is due to a decline in A-E diplomatic relations. However, it is worth mentioning that the suggested dates for the Late Minoan pottery from Egypt and elsewhere are extremely fragile (table 48).

Moreover, it is noteworthy that Minoan pottery from Egypt is limited when compared against Mycenaean pottery discovered there. Any Aegean ceramics discovered in Egyptian archaeological contexts that date before the reign of Thutmose III are Minoan, whereas Aegean pottery from the reign of Thutmose III onwards is mainly Mycenaean; i.e. Mycenaean pottery appeared in the country c 1450 BC. Mycenaean pottery found in Egypt appears 'mass-produced' in comparison to Minoan pottery discovered there, and consists mainly of containers. For instance, reasonable quantities of LH IIIA2 sherds were unearthed at Amarna, and many of them were containers of precious liquids. Judas notices that the majority of Aegean ceramics in Egypt are distributed around urban centres. These finds are frequently associated with domestic, funerary and occasionally ritual archaeological contexts, not necessarily elite.

- **Representative examples**

Minoan Kamares sherds were unearthed at Harageh. The site consists of a settlement

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713 Barrett 2009: 212-215
715 This is mainly due to the debate over the Thera eruption and the polyphony in the Aegean - (and) Egyptian chronological schemes. See chapter One: 'Chronological considerations'.
716 The work of Kemp and Merrillees 1980 is one of the major works on Aegean pottery discovered in Egypt. However, the most recent work on Aegean ceramics in Egypt is that of Judas (unpublished doctoral Thesis, 2010, University of Pennsylvania), with a complete database of all Late Bronze Age Aegean pottery discovered in Egypt and Nubia. See also Barrett 2009.
717 Barrett 2009: 112. Phillips 2005 argues that Aegean pottery from the reign of Thutmose III onwards is Mycenaean. For Minoan and Minoanising pottery from Egypt see Barrett 2009; and some examples in Judas 2010.
718 The finds included stirrup jars, vertical flasks, piriform jars, and straight-sided alabastra. See the examples provided in Judas 2010: 221-234; 242-267, with extended references and bibliography. Hankey (1995; 1997; 1999, etc.) has also studied the Mycenaean pottery from Amarna.
719 Judas 2010: 796
720 See 'representative examples' for a discussion of the archaeological contexts in which these items are found, with examples.
721 Harageh (or Haraga), in the Fayum, lies on the north-western edge of the Gebel Abusir, south-east of the modern village of Lahun and in proximity to Gurob and Lahun sites. For the site see Engelbach
and cemeteries. Minoan potsherds were discovered in the cemetery (dump) and settlement debris; and two Minoanising bowls were found in Harageh tomb 326.\footnote{About thirty Minoan sherds from Harageh cemetery are now stored in Britain.\footnote{A few of these fragments are seen in entry [KM HA.1-HA.12]. The Harageh Minoan and Minoanising sherds manifest fine technique; still, their context demonstrates that the vessels belonged to individuals from various socio-economic backgrounds. Note that urban Lahun and Harageh, devoted to the cult of ruler Sesostris II, housed not only workmen of royal tombs but also cult officials and members of the priesthood.}}

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Minoan and some Minoanising MM pottery was also discovered in Lahun, in domestic contexts [KM HA.1-HA.12].\footnote{Among the finds from Lahun, [KM KA.20] illustrates an Egyptian vessel with crinkled rim (pictures 1-4). Though locally-made, the bowl imitated Kamares ware, and its shape and rim were re-produced and traded by the same, or other local craftsmen, as seen in the two crinkle rim bowls from Harageh tomb 326.\footnote{The reader may no\#\#tice the wavy rim, impressed decoration and use of red and white pigments of the Lahun Minoanising vessel (BM Cat. Vases A562) and compare them to Kemp and Merrillees 1980: 39 [Ha 13 and Ha 14 (Ashmolean 1914.684) and UCL 18718 respectively]. The two Harageh vessels ([Ha 13 and Ha 14]), from Tomb 324, are an imitation of an imitation of a Minoan vessel, judging}}

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See (table 48). For the original MM pottery from Harageh (context: cemetery dump and settlement debris) see Kemp and Merrillees 1980: 6-14, figs. 3-5; Merrillees 2003: 137. For the Minoanising bowls with crinkled rims see Kemp and Merrillees 1980: 21-39; Grajetzki et al. 2002.

The British Museum, the Petrie Museum, the Ashmolean in Oxford, Manchester Museum, etc. See Kemp and Merrillees 1980: 8-14 (HA.1-HA.12).

See [8 Minoica]. One can suspect – but not prove – that these products were the result of trade and gift exchange, or possibly made by travelling professionals (Aegeans? Or Egyptians who had visited the Aegean?). For the population of Harageh see Kemp 1989: 149. Imitation of Aegean pottery shows that they style was on demand.

Seventeen Minoan sherds, among them, nine locally produced, imitating MM pottery. The place is seen in research as 'Kahun' or Lahun, or El-Lahun or Illahun. For Lahun see Petrie 1891; Brunton 1920; Petrie, Brunton and Murray 1923; Petrie, Griffith and Newberry 1890; Winlock 1973; Quirke 1998, 2005; Szpakowska 2008. The sherds are discussed in Kemp and Merrillees 1980: 57-79 [Ka.1-Ka.29] and figs. 22-34; Karetsou et al. 2000a: [26, 27ac], Merrillees 2003: 136; Phillips 2006 (more references are provided in Barrett 2009: table 2). Some of the fragments can be also seen in entry [KM HA.1-HA.12]. Four sherds (British Museum BM 90.11-6.14, British Museum BM 90.11-6.18, British Museum BM 90.11-6.37 and Manchester Museum 6134F) might be 'gaming' sherds (Kemp and Merrillees 1980: 78-79, fig. 33).

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The vase from Buhen Tomb K5 [KM 'Buhen tomb K5'] was produced by a local craftsman but its painted decoration is inspired by Minoan and Minoanising vessels.\textsuperscript{727} The famous MM II jar from Abydos tomb 416 [KM AM E 3295] received special mention in Kemp and Merrillees' s work.\textsuperscript{728} The excavation at Qubbet el-Hawa, near Aswan, also produced a Kamares vase with floral appliqués [KM CM JdE 92304] (picture 90) (in a re-use of shaft IV in tomb 88).\textsuperscript{729} Its origin is debatable.\textsuperscript{730}

Six Middle Minoan Kamares sherds were unearthed in Lisht during the 1920/21 and 1921/22 seasons of the Egyptian Expedition of the Metropolitan Museum of Art; two may be imitations [KM Li.1], [KM Li.4-Li6].\textsuperscript{731} Their context is unclear, but records suggest the radim or fill west of the pyramid of Amenemhat I. A village flourished there, around the pyramid, in the thirteenth dynasty. It is therefore likely that the Minoan ware derived from a domestic context, and not a funerary one.\textsuperscript{732} An investigation of the possible archaeological contexts of these finds indicates that various Egyptian socio-economic groups participated in the acquisition of Minoica and Minoanising artefacts. Any presence or interaction of Minoans (traders, craftsmen, or others) in the area should also be acknowledged.\textsuperscript{733}

\begin{flushleft}
\textsuperscript{727} Kemp and Merrillees 1980: 102-104, fig. 35. See [§ artefacts of foreign inspiration].
\textsuperscript{728} For the tomb see Kemp and Merrillees 105-175. For its cultural context and date see ibid 160-175. For the vessel see Kemp and Merrillees 1980: 108-112; 117-119 [416.A.07.4], fig. 38, no 4; Warren 1985: 149; Carinci 2000: 36.
\textsuperscript{730} Edel 1980 considers it a Minoan imitation. Such vessels are seen in 'tribute' scenes of foreigners (see chapter Six), according to Hallmann 2006. Such a vase appliqué decoration in Egypt is also seen in Darnell and Darnell 2002: 76 (Prunkgefäße), and it is considered Egyptian by Schäfer (1964 [1903]: 43) and Hallmann (2000: 76).
\textsuperscript{731} These are all discussed in Kemp and Merrillees 1980: 1-4, fig. 1; Walberg 1983: 141; Karetsou 2000: 5253 [28, 29d]; Merrillees 2003: 136 with further references.
\textsuperscript{732} For the site see Arnold 1988 (Metropolitan Museum of Art, New York).
\textsuperscript{733} Kemp and Merrillees 1980; Barrett 2009. See chapter Seven: 'On the razor’s edge: Aegeans in Egypt and Egyptians in the Aegean'.
\end{flushleft}
Another remarkable jug from Lisht [KM 'Dolphin Vase'] dates to c 1850-1650 BC.734 Tomb 879 (thirteenth dynasty), where the vessel comes from, was looted in antiquity. Still, a great number of finds were traced there, and the tomb contained at least one court burial.735 The jug is painted with birds and dolphins and it is an artistic blend of a few Egyptian, but mainly Syro-Palestinian (i.e. Tell el-Yahudiyah) and Minoan traits of that era.736 McGovern and his colleagues conducted neutron activation analysis on the jug's fabric, and concluded that it came from the Gaza region. Therefore, the jug may be associated with the presence of the Hyksos at Lisht.737 Its comparandum from Tell el-Dab'a indicates the same direction: such stylistic / decorative particularities reached the land of Egypt via the Hyksos.738 The jug's image of birds and dolphins, though Minoan-like, is foreign to the Aegean. Still, whoever made that jug had a rather cosmopolitan view of pottery decoration.739

Some LM IB examples will be provided. LM IB pottery was unearthed in Sidmant, Abydos, Kom Rabi'a and elsewhere. (table 48).740 The 'Abbott Jug', a cup from the Fayum and the 'Marseilles Ewer' also date to LM IB.741 As the exact site and context of the two fine clay cups [KM UCL 832 & UCL 834] and [KM UCL 833] are not known, only hypotheses can be made on how these items were transferred from Crete to

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736 See entry [KM 'Dolphin Vase'] for details about the vessel's origin and style. The dolphins and birds decoration and the shape of the vessel are a typical example of an artistic koine [§ koine].
737 McGovern et al. 1994. For the Hyksos at Lisht, see chapter Three: 'The historical background: 19th to 18th century BC' and 'The historical background: 17th to 15th century BC'; 'Egypt'.
738 This is the Tell el-Dab'a jug in Bietak 1968: pl. XXXIIa.
739 [§ travelling artisans (and other professionals), § networking, § koine, § imitations, § replicas].
740 These are: a) Sidmant tomb 137: LM IB tall alabastron / not 'safe' to use for chronology reasons (Kemp and Merrillees 1980: 226-228, 230, fig. 71); Abydos tomb 328: fragment of a LM IB vessel (Kemp and Merrillees 1980: 232-242, fig. 72) ; Kom Rabi'a 530: LM IB fragment (Thutmose III) (Hankey and Leonard 1998: 31). These must be examined along with Helladic vessel fragments in Egypt, such as Gurob 245 LH IIA alabastron (Koehl 2006: 65, 170, 345-364, with bibliography). LM IB pottery from Egypt is also examined in detail by Höfmayer (2011b); also in Warren 2009, with emphasis placed on the debate of A-E chronological links.
741 For the Abbott jug (Brooklyn Museum 37.13E) see Merrillees and Winter 1972: 101-103; Karetsou et al. 2000a: [120a-121]. For the Minoan cup from the Fayum (now in Copenhagen) see Furumark 1950: 211, 213, fig. 19.D. For a picture of the Marseilles ewer see Petrie 1939: pl. LXXX. 6 and 7; Merrillees and Winter 1972: 106; Karetsou et al. 2000a: [120a-121]. For other LM pottery from Egypt see (table 48) and Barrett 2009: table 3, with further references.
No LM II material has been discovered in the Nile Valley, even though the Keftiu are still seen bringing their gifts in Aegean processional scenes from Thebes. On the lack of LM II pottery from Egyptian sites, Kemp and Merrillees have argued that 'the arrival of Minoan pottery in Egypt was the result of a separate process'. In other words, they suggested that, at that time, Aegean embassies visited Egypt following the western route whereas Minoan pottery reached the country in small quantities from the north-east Mediterranean.

See the relevant catalogue entries for references.

Kemp and Merrillees 1980: 282, 283. For the Aegean processional scenes in Thebes see chapter Six. See also chapter Seven: Some observations on Aegean and Aegeanising material unearthed in Egypt.
Regional focus: Items from Avaris

○ Introduction

The cosmopolitan character of Avaris (modern Tell el-Dab'a) is established by the variety of pottery discovered there: Egyptian material, Late Cypriot Bichrome, White Slip I, Red Lustrous wheel-made, and Base Ring I ware, amphoras from Canaan, Nubian ware, etc.. Considering the connections between Avaris and the Aegean, apart from the Aegean frescoes from Tell el-Dab'a (discussed in chapter Five), the author will briefly mention a few examples of Aegean pottery and other Aegean / Minoan items either discovered there, or related to the citadel and its rulers.

○ Time, space, context and representative examples

MM IIB sherds, possibly from a cup, were unearthed in the thirteenth dynasty palace gardens, area FI (map XI). The context of a MM IIIA/B post-Kamares sherd is unstratified. Fragments of at least two MM IIIA 'open mouth' amphoras were found at 'Ezbet Rushdi (area R/I). On an amphoriskos with handles outlined in the pattern of the Aegean figure-of-eight shields, one sees a leopard in flying gallop chasing an ungulate. The vessel is probably Levantine; yet, the painted decoration demonstrates LM IA affinities. Additionally, fragmentary red burnished rhyta were found in areas

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744 See, for example, Bietak and Hein 1994, 1995; 2001; Fuscaldo 2000; 2001; 2002; Maguire 1995; 2009, etc. Most of the publications on pottery from Tell el-Dab'a are published in the series of Ägypten und Levante / Egypt and the Levant. Internationale Zeitschrift für ägyptische Archäologie International Journal for Egyptian Archaeology and Related Disciplines. Verlag der Österreichischen Akademie der Wissenschaften Austrian Academy of Sciences Press.


746 The pot fragments were found in a domestic complex. Czerny 1998: 46, fig. 21. Bietak and Marinatos 2000: 40; Merrillees 2003: 137.

H/I, II and III (Thutmoside waste deposit), made locally after LM I prototypes.  
A complete rhyton was unearthed from an eighteenth dynasty palace magazine at 'Ezbet Helmi (area H) [M1003]. This rhyton was manufactured locally, but it imitates LM IA prototypes. 
Similar rhyta are represented in the Aegean processional scenes in Thebes. It is likely that the Egyptians used Minoan rhyta in cult and luxury daily living. 

Also of particular interest is the gold pendant from Tell el-Dab'a [M1002] (picture 91, compare to 100), a finely produced luxury item which is tied to a heraldic or ritual symbolism. The exact origin of the pendant remains problematic, but the theme and stylistic symmetry of antithetically placed figures represent a common arrangement in Eastern Mediterranean and Anatolian art. The item derived from the Hyksos strata and, if Aegean, it may have reached Avaris as an exotic gift, thus reflecting a Hyksos - Aegean (or rather, Hyksos - Minoan) relationship. Note that the Avaris frescoes and Khyan's lid from Crete [P163] could confirm the theory of a 'direct' relationship between the palaces at Avaris and Knossos, at an entirely hypothetical level. 

Bietak has recently been exploring the site of the palace of the Hyksos ruler Khyan. In 2006, the Austrian team unearthed a number of fish dishes from pit complex L81.

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750 See the spreadsheet: 'Aegean processional scenes': 'conical rhyta' and chapter Six.
751 Koehl 2000: 100.
752 The pendant probably functioned as a crest, demonstrating the power of authority of the person who wore it (power over nature and people), in a cultural / ritual or even amuletic manner. Otherwise, it may be seen as an item of a ritual nature.
753 See [§ koine].
754 See [§ gift exchange].
755 See also chapter Five. The Avaris frescoes, astonishingly similar to the Knossos ones, may also demonstrate an Avaris - Knossos connection, at an elite level (i.e. between rulers), according to Bietak and his colleagues (see Bietak, Marinatos and Palyvou 2007). See chapter Five for the Avaris frescoes, and chapter Seven: 'Possible Aegean - Hyksos / Aegean - Egyptian state-to-state negotiations'.
756 Area F2 in (map XI). See Bietak and Forstner-Müller 2006; Bietak, Forstner-Müller and Herbich 2007; Müller 2008. For the excavations at Tell el-Dab's see chapter Five: 'History of research' and 'The site'.

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Though these dishes are made of indigenous fabric, one cannot help but compare them
to Aegean iconography. Apart from the centrally placed tilapia fish, the dishes
demonstrate in 'horror vacui',*757* exotic landscapes and figures of animals and Daemons
which may be associated with Aegean parallels in pottery, seals and frescoes. The
figures on the dishes (standing hippopotamus deities, baboons, antelopes, leopards,
birds, etc.) are certainly not static; some animals in hunting scenes even demonstrate a
gentle flying gallop (see, for example [M1004]).*758*

The name of Egyptian queen Ahhotep II is usually connected to both Avaris and the
Aegean world. Ahhotep, the exact identity of which is very problematic (the name
corresponds to two women who might, or might not be the same person), is believed to
be the wife of eighteenth dynasty ruler Seqenenra Tao II and / or the mother of Ahmose
I, who expelled the Hyksos from Avaris and founded the eighteenth dynasty in
Thebes.*759* One of her titles was 'Mistress of (the Shores of) Hau-nebut', which raised
suspicions of her probable (though problematic) Aegean origin, or, at least, direct
interaction of her family with the Aegeans.*760* She was also discussed with respect to an
Aegeanising griffin fresco at Tell el-Dab'a, and the theory of a dynastic marriage
between an Egyptian ruler and an Aegean princess, as suggested by Bietak.*761*

Most importantly, the relationship of the family of Ahhotep with the Aegean may be
seen in the axe of Ahmose [M1001] (pictures 93, 94) and the dagger of the Queen,

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*757 [§ horror vacui].

*758* The description is based in the author's observation, since she saw the finds in 2011 when she visited
the Tell el-Dab'a storerooms. All these fish dishes are presented in Aston and Bader 2009: esp. 41-52
and [60-74]. The images of course are an iconographic koine but they should be seen side-by-side
with Aegean art. Only [M1004] is provided on the spreadsheet but this author wishes to thoroughly
examine the iconography of the dishes in comparison to Aegean comparanda in a further publication.
See also [§ flying gallop].

*759* For Ahhotep and her tomb see Vandersleyen 1971: 129-130, 175-176; Lacovara 2008 with further
references. The identity of the Queen is not without problems since the same name and titles indicate
two women: Ahhotep, queen of Seqenenre Tao II, and the wife of Kamose (also named Ahhotep) both
hold the title of ḫnmt nfr ḫḏt (‘the associate of the white Crown bearer’); unless of course she is the
same person. See Dodson and Hilton 2004: 128 and Grajetzki 2005: 126-127. These Queens are often
distinguished in modern scholarships as Ahhotep I and II. The sarcophagus of Ahhotep I was
discovered at Dra Abu el-Nagga (see Gitton 1984, 10, n. 3).

*760* H3.w-nb.wt See also (Wb 3, 11.1-12; Wb 3, 11.5-6,10; Wb 3, 11.10;
LÄ III, 1278).

offered to her by her son; both from Dra Abu el-Naga.\textsuperscript{762} The 'notched plume' wings of the griffin on the axe look remarkably Aegean; and so does the 'lion chasing a bull theme', demonstrated on the dagger in typical 'flying gallop' and with an Aegean landscape in mind.\textsuperscript{763} Both items show artistic influences from the Aegean and raise questions of a possible diplomatic or other treaty between the two regions, especially when seen together with the Avaris frescoes (discussed in chapter Five). Moreover, both items manifest power over nature and people, a symbolism favoured by both the Egyptian and Aegean elite.

In accordance with the items from Tell el-Dab'a comes the silver ship model [M1009] from the tomb of Ahhotep in Dra Abu el-Naga, which simulates actual Minoan / Cycladic ships, or models of ships, even though it is made by an Egyptian craftsman.\textsuperscript{764} The model ship was found together with a typically Egyptian gold model ship (i.e. a model of a papyroform wood-planked vessel) and a four-wheeled carriage. The artefact was discussed by Wachsmann, who states that the model ships and carriage were likely to be booty captured by Kamose or Ahmose when they attacked the Hyksos at Avaris (modern Tell el-Dab'a).\textsuperscript{765} Wachsmann even argues that the silver model ship indicates a Minoan presence at Avaris during the Hyksos Period.\textsuperscript{766}

The Aegean presence at Avaris during the Hyksos and the Thutmoside Period, in association with a number of Minoica / Aegeaca and the Aegean frescoes discovered at

\textsuperscript{762} The silver boat model [M1009] (Wachsmann 2010), a golden inlaid pectoral EMC JE 4683 (Aldred 1978: pl. 39; Andrews 1990: fig. 15) and the dagger of Ahhotep (EMC JE 4668) are all from Dra Abu El Naga, Tomb of Queen Ahhotep (Kantor 1947: 63-66, 71-72; Lacovara 2008).

\textsuperscript{763} See Kantor 1947: 63-66, 71-72; Lacovara 2008; Stevenson-Smith 1965: 125-126, pls. 84B, 86; Morgan 1988: 53, pl. 63; Warren 1995: 13; 2000: 26-28. Note that a pectoral from the same tomb in Dra Nabu el Naga (Aldred 1978: pl. 39; Andrews 1990: fig. 15) has been compared to [M1001]. The scene on the dagger is shown against a rocky landscape.

\textsuperscript{764} Wachsmann (2010: 34) states that the item was made by an Egyptian craftsman / craftsmen, but its source was not Egyptian, i.e. the item may be seen together with the [§ Aegeanising / Minoanising artefacts, § artefacts of foreign inspiration]. See catalogue entry [M1009] for Aegean comparanda. Note that these are the only metal ship models from Egypt and the only ship models of any kind dating to the Second Intermediate Period.

\textsuperscript{765} Wachsmann 2010. For Avaris see chapter Five. On Ahhotep and her tomb see Vandersleyen 1971: 129-130, 175-196, with additional bibliography; note 648.

\textsuperscript{766} 'Similar metal models could have been brought to Egypt by the Minoans, or alternatively, as appears to be the case with Ahhotep's silver (ship) model, could have been constructed by Egyptian artisans for Minoans residing in, or visiting, Egypt' (Wachsmann 2010: 36).
Tell el-Dab'a, is discussed thoroughly in chapters Five and Seven.\textsuperscript{767}

Conclusions about Aegeaca discovered in Egypt

Some collective remarks on the Aegean(-ising) material unearthed in Egypt and on the mechanisms of production and circulation of these items are provided in chapter Seven.\textsuperscript{768}

\textsuperscript{767} See chapter Five: passim, and especially 'Who painted the Avaris frescoes and why were these frescoes painted? A cornucopia of ideas', 'How the Avaris Frescoes were created: a suggested project strategy', and 'The Aegean interactions with Avaris addressed historically'. For the Aegean presence at Avaris in the Late Hyksos Period and in the Thutmoside period see chapter Seven: 'On the razor's edge: Aegeans in Egypt and Egyptians in the Aegean'.

\textsuperscript{768} See chapter Seven: 'Some observations on Aegean and Aegeanising material unearthed in Egypt'.

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Part 4. **Diagrams: Aegyptiaca on Crete**

The following pages are a 'sample' and a 'preview' of what the spreadsheet can do in the future. Since the number of the finds included on the spreadsheet does not cover the whole of Phillips' catalogue but solely the items relevant to this work and items with date / context within the chronological limits of this thesis, the results of the diagrams are representative. However, to the author, some important points are raised, considering that a good number of Phillips' catalogued Aegyptiaca (about 80%) is listed on this file. The searchability and frequency function ('countif') of the spreadsheet have allowed for the construction of the following diagrams:
1) Identification

On (diagram 1),

- 67 (of the 485 items from spreadsheet 'Crete (Phillips)') can be labelled as antiques in their context (orange) and 158 as probable antiques in their context (yellow);
- 24 can be labelled as reworked (dark blue) and 12 as probably reworked (light blue). 769

Diagram 1: Aegyptiaca: state and time (c 1900-1400 BC).

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769 Criteria for the labelling in all diagrams are: a) Phillips' descriptions and labels in her catalogue, and b) especially with regard to the 'antique' status, a disagreement between the date of the item and its archaeological context, which could indicate that the find is, or could be an antique in its context, depending on chronological preferences.
• Note that the 24 items (e.g. [P105]) that are labelled as both antiques and reworked on the same cell ('antique' and 'reworked' combinations with question-marks or without) are not provided as a separate group; instead, the author has counted them as 'antiques (?)' and 'reworked (?)'.

• The rest of the items in the grey area (485-261=104) represent what the spreadsheet describes as 'n/a': i.e. the date of the find and the date of the context are contemporary, the archaeological context is problematic / unknown, or an estimation of their antique or non-antique status is not possible from the information provided in Phillips 2008.

• The author notices that over half of the items are antiques or possible antiques in their archaeological context. In fact, this number could increase considering that more 'antiques (?)' could be included with the 'n/a' group, if the archaeological context of certain finds was 'safe' instead of unknown / problematic. Also, many reworked or possibly reworked items (24 out of 36) are antiques in their context. The latter does not certify that the Cretans had a stronger preference in modifying items that arrived on Crete as antiques; even though items such as [P416] could suggest so. A finished item produced at a certain time could have been modified several decades or even centuries after its original manufacture, and even 'buried' in its context long after its modification.770

• What makes 'antique (?)' Aegyptiaca abundant on Crete? Certainly, the answer can be gathered from (table 49a-d), which demonstrates that realistically speaking there is some history from the time an item is produced to the time it becomes associated with an archaeological context. This is particularly obvious for transported products, even though artistic and technological fashions can also take some time to migrate from region to region; i.e. the '-ising' finds could have received inspiration and influences from old foreign trends.

• Lastly, one notices that the 'reworked (?)' items are relatively limited compared to the total number of finds: 36 out of 485. Yet, this number is enough to demonstrate that the Cretans did modify exotica.

770 (table 49a-d)
II) Provenance and manufacture

(Diagram 2a) shows the number of items labelled by Phillips as certainly Egyptian (light green) and certainly Minoan (dark green). Items not considered by Phillips as certainly Egyptian or Minoan (including other possible provenance) are placed on this diagram with the 'other / undecided / unsure' group (orange area). To conclude, of 485 Aegyptiaca from spreadsheet 'Crete (Phillips)' considered on this diagram:

- over half (256) are seen by Phillips to be of Minoan manufacture,
- just over one quarter (146) are of Egyptian manufacture;
• and for the manufacture and provenance of 88 items, Phillips appears unsure or unconvinced.

Thus, the Minoan pieces outnumber Egyptian items from Crete. Yet, the number of 'certainly' Egyptian items from Crete is considerable – it is obvious from the diagram that genuine Egyptian items were in demand on the island.

The following diagram analyses the items for which Phillips appears unsure or unconvinced. Yet, Phillips has suggested several probabilities for the manufacture / provenance of these items. All these multiple suggestions are considered separately in (diagram 2b).

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771 Provenance and manufacture are not the same thing. One needs to be careful, as an item could be made on Crete but by a foreign craftsman. For convenience, in this thesis, the ‘cultural identity’ of the items corresponds to the ‘labels’ that proceed the suggested dates for the finds in Phillips 2008, volume 2.
Diagram 2b: Original provenance: what could be the manufacture and origin of the items in the 'other / undecided / unsure' group? All probabilities considered (note that the 'other / undecided / unsure' group' matches the orange area in diagram 2a).

(Diagram 2b) shows that of 485 Aegyptiaca from spreadsheet 'Crete (Phillips)', the 88 items (orange area on diagram 2a) could be anything, from Levantine and Near Eastern to modern forgeries. The author has maintained all labels exactly as they are provided by Phillips (e.g. 'Canaanite', 'Syro-palestinian', 'Canaanite or less likely Egyptian' etc.). For most of these problematic items Phillips has given more than one suggestion; e.g. item [P217] is 'Egyptian, or less likely, Mesopotamian or Levantine' (all these probabilities are represented within the individual groups of the diagram. The item scores '1 Egyptian', '1 Mesopotamian', '1 Levantine', and that explains why the total number of suggestions for these finds is more than 88.
The following important points can be raised from (diagram 2b):

- 32 items could be of Minoan manufacture.
- 75 items could be of Egyptian manufacture.
- Contrary to (diagram 2a), 'Egyptian?' outnumbers 'Minoan?'. Which means that more items could be placed with the 'certainly Egyptian' and 'certainly Minoan' items on (diagram 2a), assuming of course that their manufacture was not questioned. In fact, particularly the number of 'certainly Egyptian' items could considerably increase under these circumstances – but all this speculation remains hypothetical.
- The number of items labelled by Phillips as possibly 'Canaanite', 'Syro-palestinian', 'Levantine (?)' is considerable but relatively limited. This is unsurprising as these cultures were actively trading their products at the time, often copying or imitating the products of other cultures. 772
- Yet, if a high percentage of the problematic items were indeed Egyptian, this would mean that the Cretans were keen on items that were, or looked Egyptian (whether made by Egyptians or by other nationals).
- Lastly, the high number of items of problematic manufacture (88), in combination with the 2 (?) possible forgeries, the ancient copies and imitations of foreign items and the polyphony of ideas with regard to manufacture / provenance, 773 demonstrate that only a guess can be made for the numbers and cultural identities of exotica on Crete. The same happens with exotica from the rest of the Aegean. If modern researchers cannot agree on the manufacture and provenance of certain exotic(-looking) items, it is likely that the average Minoan was equally 'puzzled' about the manufacture of such items. The majority of Minoans were capable of visually matching items based on similar traits (e.g. Egyptian scarabs) but it is uncertain if they labelled them as Egyptian or other.

772 See chapter Four.
773 see columns 'Original provenance suggested by Phillips 2008' and 'Major disagreements concerning original provenance' on the spreadsheet.
Nonetheless, Minoans who had visited Egypt or had Egyptian connections were perfectly capable of linking specific Egyptian-insing items to Egyptian manufacture and labelling a piece as Egyptian.

III) Distribution in space

(Diagrams 3a-c) show the numbers of Aegyptiaca per region, on western, central and eastern Crete. Only items on the spreadsheet (sheet 'Crete (Phillips)') have been considered. For convenience, Phillips' map of Crete was divided into three geographical areas as follows:774

- Western Crete: north and south region west of Pankalochori (see diagram 3a).
- Central Crete: the region (north and south) between Pankalochori and Karteros, including these two archaeological sites (see diagram 3b).
- Eastern Crete: all north and south regions from Gournes eastwards, including Gournes (see diagram 3c).

The aim of the following diagrams is not to show the distribution of items over time. This is nicely done by Phillips who groups them according to individual object type or image.775 On the contrary, the scope is to show an overview of the number of Aegyptiaca produced from the excavation of individual archaeological sites – a result based on the data of the spreadsheet.776 Therefore, the following diagrams show which Cretan regions were more 'open' to the import and local manufacture of Aegyptiaca; in other words, how cosmopolitan certain regions were in comparison to other sites. In future, similar statistics could permit a comparative study evaluating the number of Aegyptiaca from Cretan sites in accordance with the various levels of urbanisation on Crete, and the geographical and navigable accessibility of the island.

776 Only the sheet 'Crete (Phillips)' was considered.
shows that the number of Aegyptiaca from western Crete is very limited in comparison to central and eastern Crete (diagrams 3b-c). The graph also shows the number of items of problematic or unknown site and context: these are labelled as 'Western Crete' and 'Crete' by Phillips, but the exact site and context is unknown. They ought to be placed on the diagram, because they show the size of the problem: a large percentage of items have no context. After all, some items labelled as 'Crete: no find context' by Phillips, could in theory come from Western Crete.

Why has western Crete not 'produced' as many Aegyptiaca as the central and eastern part of the island has done? To the author, the answer may be a combination of the
following reasons:

- The mountainous geomorphology of western Crete allowed less opportunity for the creation and development of cultural (urban) centres.
- Western Crete was not as accessible by sea compared to the central and eastern part of the island.
- Western Crete is less excavated than central Crete.
- Central and eastern Crete were developing faster than western Crete.

*Diagram 3b: Distribution of Aegyptiaca in central Crete. Again, the column called 'Crete' shows the finds called 'Crete, no find context' by Phillips. This means that no exact site and context is known for these items, other than the fact that they come from the island.*
(Diagram 3b) shows that within the chronological limits of this thesis the most cosmopolitan regions in Central Crete were (from left to right) Kamilari, Kommos, Aghia Triadha, Odigitrias, Phaistos, Kalyvia, Platanos, Poros, Katsamba, Knossos and Archanes. It is not coincidental that all these regions correspond to the two 'hotpoints' of Cretan urbanisation: the Messara and Knossos regions. It is also notable that in general, the closer and more easily accessible a site is to the shore, the more Aegyptiaca it has produced. The fact that certain sites have been excavated more than others does play a role in the increased number of Aegyptiaca from certain regions, but geography, geomorphology and navigable accessibility should also be considered.

Diagram 3c: Distribution of Aegyptiaca in Eastern Crete. Again, the column called 'Crete' shows the finds called 'Crete, no find context' by Phillips. This means that no exact site and context is known for these items, other than the fact that they come from the island.
Lastly, **(diagram 3c)** shows how cosmopolitan eastern Crete was, and how well its centres were doing in the consumption of Aegyptiaca. Notable sites, cultural and cosmopolitan 'hotpoints' are (from left to right) Gournes, Tsoutsouros, Malia, Trapeza and Psychro caves, Palaikastro and Kato Zakro.

To conclude, the author hopes to have shown how the spreadsheet can open new opportunities to the way researchers can study the distribution of exotic and exotic-like items in the Aegean and elsewhere. Such an advantage, together with the searchability of the spreadsheet, allows a better understanding of A-E relations. With the use of the searchable spreadsheet, possibilities are many: statistic results could demonstrate the frequency of exotica in relation to the various types of archaeological context, or the frequency and development of certain images (e.g. the ape image) over time.
POSTFACE

Extended abstract
The objective of this work was to discuss the mechanisms of cultural transition, networking, trade and exchange between the Aegean and Egypt. The 'Aegean' point-of-view focused on Crete and some Aegean islands such as Thera, whereas 'Egypt' also included the Hyksos. In order to meet the objective, the author considered artefacts: Aegean from Egypt, Egyptian from the Aegean, Aegeanising, Egyptianising and other. The goal was facilitated by the creation of a searchable database (at the moment, a unique resource). Two case-studies were examined in detail: the Avaris frescoes and the Aegean processional scenes in the Theban tombs of nobles.

The selected methodology involved the application of two different approaches to the same data with the purpose of advancing the understanding of Aegean - Egyptian relations; but whereas World Systems Theory has been previously, although restrictedly, applied in this field, the use of the theoretical model of mathematically-inspired Game Theory is pioneering. In particular, what differentiates this research from previous studies is that the value of the World Systems Theory in relation to Aegean - Egyptian interactions was examined in depth, and most importantly, the validity of Game Theory was also tested. The author concluded that, in contrast to World Systems Theory, Game Theory highlights the role of individuals in Aegean - Egyptian interactions and not solely the roles of states and nations. It also explores the causes behind historical events and the mutual benefits of contact, while, at the same time, it reveals the factors that promoted mutual stability in the Eastern Mediterranean. As such, Game Theory is a fruitful approach in archaeology.
Ο σκοπός αυτής της διατριβής ήταν η διερεύνηση των μηχανισμών που καθόριζαν το εμπόριο και τις ανταλλαγές καθώς και της πολιτισμικής και κοινωνικής δικτύωσης που λάμβανε χώρα ανάμεσα στο Αιγαίο και την Αίγυπτο. Το ενδιαφέρον για το Αιγαίο επικεντρώθηκε στην Κρήτη και σε άλλα νησιά (π.χ. Θήρα), ενώ η "Αιγυπτιακή" έποψη συμπεριέλαβε και τους Υκσώς. Προκειμένου να επιτευχθεί ο στόχος, η συγγραφέας έλαβε υπ' όψιν συγκεκριμένα τεχνουργήματα: Αιγαιακά ευρήματα από την Αίγυπτο, Αιγυπτιακά ευρήματα από το Αιγαίο, Αιγαιάζοντα, Αιγυπτιάζοντα και λοιπά. Η μελέτη διευκολύνθηκε από τη δημιουργία μίας ερευνήσιμης βάσης δεδομένων (που είναι επί της παρούσης ένας μοναδικός ερευνητικός πόρος στον τομέα). Δύο περιπτωσιολογικές μελέτες εξετάστηκαν λεπτομερώς: οι τοιχογραφίες της Αβάριδος και οι παραστάσεις Αιγαίων στις τοιχογραφίες των τάφων των ευγενών στις Θήβες.

Η μεθοδολογική πορεία που επιλέχθηκε, συμπεριέλαβε την εφαρμογή δυο διαφορετικών προσεγγίσεων στα ίδια δεδομένα, με σκοπό την βελτίωση κατανόηση των σχέσεων Αιγαίου-Αιγύπτου. Αλλά ενώ η θεωρία των παγκόσμιων συστημάτων έχει εφαρμοστεί στο επιστημονικό πεδίο στο παρελθόν (αν και με κάποιους περιορισμούς), η χρήση του θεωρητικού μοντέλου της εμπνευσμένης από τα μαθηματικά θεωρίες των παιγνίων είναι πρωτοποριακή. Συγκεκριμένα, αυτό που διαφοροποιεί αυτή τη μελέτη από προηγούμενες επιστημονικές εργασίες είναι ότι η ισχύς της θεωρίας των παγκόσμιων συστημάτων σε σχέση με τις Αιγαιακές – Αιγυπτιακές αλληλεπιδράσεις.
διερευνήθηκε εις βάθος, αλλά κυρίως το γεγονός ότι δοκιμάστηκε και η εγκυρότητα της θεωρίας των παιγνίων. Η συγγραφέας κατέληξε στο συμπέρασμα πως, σε αντίθεση με την θεωρία των παγκόσμιων συστημάτων, η θεωρία παιγνίων δίνει έμφαση στο ρόλο του ατόμου στις σχέσεις Αιγαίου - Αιγύπτου, κι όχι μόνο στον ρόλο των κρατών και των εθνών. Παράλληλα, η θεωρία παιγνίων διερευνά τις αιτίες και αφορμές πίσω από τα ιστορικά γεγονότα και τα αμοιβαία οφέλη της επικοινωνίας, ενώ, την ίδια στιγμή, αποκαλύπτει τους παράγοντες που προώθησαν την αλληλένδετη σταθερότητα στην Ανατολική Μεσόγειο. Συμπερασματικά, η θεωρία των παιγνίων είναι μια καρποφόρα προσέγγιση στην αρχαιολογία.
كان الهدف من هذا العمل هو مناقشة آليات التحول الثقافي، والتبادل التجارني بين بحر ايجية ومصر،
وقد ركزت وجهة النظر الإيجية على كريت وبعض جزر بحر ايجية مثل ثيرا، بينما كان في "مصر" الهكسوس.
ومن أجل إن نصل لهذا الهدف اهتمت الكاتبة بالصناعات اليدوية: الإيجية من مصر، والمصرية من بحر ايجية،
والملاح الملاذ الإيجية، وذات الملاح المصرية وأشياء أخرى. وتم تسهيل الهدف عن طريق خلق قاعدة بيانات
لبحث في الفترة الحالية، مصدر فريد. ولقد تم فحص حالتين دراستين بشكل مفصل، وهما: الفريسكو (لوجة
الصينية الفحص) وأثري باريس (تل الضبعة) والمشاهد الموكلاة الإيجية في مقابر النبلاء في طيبة.

وقد احتوى منهج البحث المختار على تطبيق منهجين مختلفين على نفس المعلومات بغض تقدم هم للعلاقات
المصرية-الإيجية، لكن وجود نظام النظام العالمي - لكن بطريقة محصورة أو مقيدة - أدى إلى تطبيق استخدام
نموذج نظام بطريقة حسبية. مستوحى من نظرية لعبة رائدة لهذا المجال. وبشكل عام فإن اختلافات هذا البحث
عن الدراسات السابقة يكمن في قيمة نظرية النظام العالمى فيما يتعلق بالتأثيرات الإيجية- المصرية، والتي تم
دراسةها بشكل عميق، وال惘 هو أنه تم اختبار صحة نظرية اللعبة.

وأنتجت الكاتبة إلى أنه على العكس من نظرية النظام العالمي، يظهر أن نظرية اللعبة تسلط الضوء على دور
الأفراد في التأثيرات الإيجية- المصرية وليس فقط للمعرفة عن دور الدولة والأمم. ويكشف البحث أيضا
الأسباب التي كانت وراء الأحداث التاريخية والمنافع المتلازمة لهذا الاتصال، كما يكشف في الوقت نفسه، العوامل
التي تعزز الاستقرار المشترك في شرق البحر المتوسط. وهكذا فأن نظرية اللعبة هي منهج ثوري في علم الآثار.
NB: the captions are placed above each table / diagram, along with the table / diagram number, since some tables consume several pages. \textbf{Table 1} is provided on the spreadsheet.
Table 2: Suggested chronological schemes for the Aegean, Egypt, the Levant and Mesopotamia. The table is based on the edition of Warburton 2009.

<table>
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<th>Calendar years (all BC)</th>
<th>CRETE AND THERA / C14</th>
<th>CRETE AND THERA / HIST</th>
<th>CYPRUS / HIST</th>
<th>CYPRUS / HISTORICAL</th>
<th>LEVANT / HIST</th>
<th>LEVANT / HIST</th>
<th>EGYPT / HIST</th>
<th>EGYPT / HIST</th>
<th>MESOPOTAMIA / HIST</th>
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<td>MM II A</td>
<td>MC II</td>
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<td>MM IIIB</td>
<td>MC III</td>
<td>MB I/II</td>
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<td>MC III</td>
<td>MB II</td>
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<td>LC IA</td>
<td>MB III</td>
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<td>1650</td>
<td>LM IA</td>
<td>LM IA</td>
<td>MB III (MB IIB)</td>
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<td>MB III/LM IA</td>
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<tr>
<td>New Kingdom</td>
<td>Eighteenth to Twentieth dynasty</td>
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<td>Third Intermediate Period</td>
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Table 4: Researchers' suggested dates for the reign of Ahmose I, Hatshepsut and Thutmose III (all dates are BC)

<table>
<thead>
<tr>
<th>Ahmose I &amp; transition to the NK</th>
<th>Hatshepsut</th>
<th>Thutmose III</th>
</tr>
</thead>
<tbody>
<tr>
<td>1600 / 1580 start (Ritner and Moeller 2014)</td>
<td>1503-1483 (Wente and Van Siclen 1976)</td>
<td>1476-1422 (Schneider 2010)</td>
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<tr>
<td>1569-1545 (Redford 1986)</td>
<td>1489-1469 (Parker 1950)</td>
<td>1490-1436 (Parker 1950)</td>
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<td>1552-1527 (Hornung 1965)</td>
<td>1490-1468 (Hornung 1965)</td>
<td>1490-1436 (Hornung 1965)</td>
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<td>1552-1526 (Grimal 1994)</td>
<td>1478-1458 (Grimal 1994)</td>
<td>1479-1425 (Grimal 1994)</td>
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<tr>
<td>1530 (Kutschera et al. 2012)</td>
<td>1482/1479-1461/1457 (Kitchen 2003; 2007) i.e. 21 regnal years plus a 21 year co-regency with Thutmose III</td>
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<tr>
<td>1549-1524 (Dodson 2000)</td>
<td>1472-1457 (Dodson 2000)</td>
<td>1479-1424 (Dodson 2000)</td>
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<tr>
<td>1540-1525 (Baines and Málek 2000)</td>
<td>1479-1457 (Baines and Málek 2000)</td>
<td>1479-1425 (Baines and Málek 2000)</td>
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<tr>
<td>c. 1524-1499 (or 1-3 years later) (Krauss and Warburton 2009)</td>
<td>Information not provided (Krauss and Warburton 2009)</td>
<td>1493 (year 1) (Gautschy 2013)</td>
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<td>c 1495 BC (Bronk Ramsey et al. 2010), 1493 (Aston 2014)</td>
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Table 5: Dates given for the reign of Hatshepsut, Thutmose III, Amenhotep II, Thutmose IV and Amenhotep III

<table>
<thead>
<tr>
<th></th>
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<tbody>
<tr>
<td>Hatshepsut</td>
<td>1503/1498 -1483 BC</td>
<td>1503-1428 BC</td>
<td>1479-1557 BC</td>
<td>1467-1445 BC</td>
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<td>Thutmose III:</td>
<td>1504-1450 BC</td>
<td>1504-1450 BC</td>
<td>1479-1425 BC</td>
<td>1467-1413 BC</td>
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<td>Amenhotep II:</td>
<td>1453-1419 BC</td>
<td>1450-1425 BC</td>
<td>1427-1392 BC</td>
<td>1414-1388 BC</td>
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<td>Thutmose IV:</td>
<td>1419-1386 BC</td>
<td>1425-1417 BC</td>
<td>1392-1382 BC</td>
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<td>Amenhotep III:</td>
<td>1386-1350 BC</td>
<td>1417-1379 BC</td>
<td>1382-1344 BC</td>
<td>1379-1340 BC</td>
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### Table 6: 'Dead-reckoning': from Amenemhat I to Amenhotep III (after Krauss and Warburton 2009)

<table>
<thead>
<tr>
<th>Ruler</th>
<th>Years of Reign</th>
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<td>Amenemhet I</td>
<td>30</td>
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<td>Sesostris I</td>
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### Table 7: Chronology of Tell El-Dab'a (after Bietak, Marinatos and Palyvou 2007: 16)

<table>
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<tr>
<th>Date</th>
<th>Tell el-Dab'a Phases</th>
<th>Stratigraphy H/I to H/VI</th>
<th>Specific Features</th>
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<td>b/1</td>
<td>Pi-ramesse: Pits and enclosure walls</td>
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<td>B3</td>
<td>b/2</td>
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<td>C/1</td>
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<td>Walls</td>
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<td>b/c</td>
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<td>►Thera Pumice◄</td>
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<td></td>
<td>C/3</td>
<td>d</td>
<td>Palace District</td>
</tr>
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<td>►Minoan Paintings◄</td>
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<td>D/1.1</td>
<td>e/1.1</td>
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<td>D/1.2</td>
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<td>D/2</td>
<td>E/2</td>
<td>Hyksos Palace Fortification</td>
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<td>f</td>
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Table 8: The updated (2011 / 2012) chronology of Tell el-Dab'a (source: Kutschera et al. 2012)
Table 9: High and Low Aegean Chronology (after Rehak and Younger 2001 and Warren and Hankey 1989)

<table>
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<tr>
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<tr>
<td></td>
<td>◄► MMII</td>
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<tr>
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<td>1700 BC-1580 BC</td>
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<td>1700/1650 BC-1640/1630 BC</td>
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<tr>
<td>1580 BC-1490 BC</td>
<td>LMIB</td>
</tr>
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<td></td>
<td>◄► MMIIIB</td>
</tr>
<tr>
<td></td>
<td>1640/1630 BC-1600/1580 BC</td>
</tr>
<tr>
<td>1490 BC-1430BC</td>
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</tr>
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</tr>
<tr>
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<td>1600/1580 BC-1480 BC</td>
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<td>1430 BC-1370 BC</td>
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<td>1480 BC-1425 BC</td>
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<tr>
<td></td>
<td>LMIII</td>
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<td>1425 BC-1390 BC</td>
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<td>1390 BC-1370/1360 BC</td>
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<td>Thera eruption: 17th Century BC/during LMIA (c. 1628 BC). Dendrochronology and radiocarbon dating.</td>
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Table 10: Relative and absolute Late Minoan Chronology (after Hallager 2010)

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<th>Pottery</th>
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<td>LM IB</td>
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<td>LM IIIC early</td>
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Table 11: Cypriot Chronology (source: Steel 2010: 806)

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<td>ProBA I</td>
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**Table 12:** Suggested dates for the frescoes at Kabri, Alalakh, Avaris and Qatna: dates are approximate. The red font indicates a high chronology for the frescoes.

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<th>Kabri</th>
<th>Avaris</th>
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<td>Eruption - Low</td>
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<td>Eruption L - low</td>
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Table 13: Historical and absolute dates of the New Kingdom (after Krauss and Warburton 2009 and Kitchen 2000)

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<th>Scientific chronology: Krauss &amp; Warburton 2009</th>
<th>Date</th>
<th>Historical Chronology: Kitchen 2000</th>
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<tbody>
<tr>
<td>From 'dead-reckoning', kings lists, some archaeological synchronisms, lunar and sothic dates. Months by lunar records.</td>
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<tr>
<td>Amenhotep III: June 1379 BC- November/December 1342 BC</td>
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<tr>
<td>Thutmos IV: Oct. 1389 BC-May 1379 BC</td>
<td>1450 BC</td>
<td>Horemhab</td>
</tr>
<tr>
<td>Amenhotep II: c. Nov. 1415BC - September 1389 BC</td>
<td>1400 BC</td>
<td>Aya</td>
</tr>
<tr>
<td>Thutmos III: April/ May 1468 BC - November 1415 BC</td>
<td>1400 BC</td>
<td>Tutankhamun</td>
</tr>
<tr>
<td>Thutmos II c. 1469-1468 BC</td>
<td>1450 BC</td>
<td>Amenhotep IV</td>
</tr>
<tr>
<td>Thutmos I c. 1476-1470 BC (or 1-3 years later)</td>
<td></td>
<td>Amenhotep III</td>
</tr>
<tr>
<td>Amenhotep I c. 1498-1477 BC (or 1-3 years later)</td>
<td>1500 BC</td>
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</tr>
<tr>
<td>Ahmose c. 1524-1499 BC (or 1-3 years later)</td>
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<td>Transition to NK / 1528 BC</td>
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</tr>
<tr>
<td>Bietak’s date on the transition to NK as in his March 2009 paper - (Radiocarbon Dating &amp; the Egyptian Archaeology)</td>
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### Table 14: Aegean - Egyptian chronological links (after Phillips 2008)

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<th>EGYPTIAN DYNASTY</th>
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<th>YEARS BC</th>
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<td>CIF</td>
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<td>CIF</td>
<td>MM IA</td>
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<td>PRE-PAL cont.</td>
<td>MM IA</td>
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*NOT INDICATED*
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<th>Hyksos period ⇒ Early 18th dynasty</th>
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<tr>
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<td>First half of 18th dynasty ⇒ Hatshepsut - Thutmose III</td>
</tr>
<tr>
<td>LH IIB/LM II</td>
<td>c 1430-1390</td>
<td>Thutmose III (?) (late) ⇒ Thutmose IV</td>
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<td>c 1390-1360</td>
<td>Amenhotep III</td>
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<tr>
<td>LH/LM IIIA2</td>
<td>c 1360-1340</td>
<td>Amenhotep III ⇒ Akhenaten</td>
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<tr>
<td>LH/LM IIIB</td>
<td>c 1340-1186</td>
<td>Akhenaten / Tutankhamun ⇒ Tewosret</td>
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<tr>
<td>LH/LM IIIC</td>
<td>c 1186-1070</td>
<td>Setnakht / Ramses III ⇒ Ramses XI</td>
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<tr>
<td>Year</td>
<td>Period</td>
<td>Events</td>
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<td>Aya</td>
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<td>1364-1355</td>
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<td>Akhenaten</td>
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<td>1452-1421</td>
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<td>1450</td>
<td></td>
<td>14C Israel 1450-30</td>
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<td>1460</td>
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<td>14C Rhodes c.1450</td>
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<td>1470</td>
<td>Thutmose III</td>
<td>1504-1450</td>
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<td>1480</td>
<td>Final</td>
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<td>1500</td>
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<td>1500-1483</td>
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<td>1510</td>
<td>Thutmose II</td>
<td>1517-1504</td>
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<td>Thutmose I</td>
<td>1525-1517</td>
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<td>Amenhotep I</td>
<td>1546-1525</td>
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<td>1550</td>
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<td>1560</td>
<td>Ahmose</td>
<td>1572-1546</td>
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<td>1570</td>
<td>Early</td>
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<td>1580</td>
<td>Ramose</td>
<td>1575-1572</td>
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**Table 17a:** Egyptian Chronology: 11th and 12th dynasty (after Shaw 2003)

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<td><strong>MIDDLE KINGDOM</strong></td>
<td>2055-1650</td>
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<tr>
<td>11th Dynasty (all Egypt)</td>
<td>2055-1985</td>
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<tr>
<td>Mentuhotep II (Nebhepetra)</td>
<td>2055-2004</td>
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<tr>
<td>Mentuhotep III (Sankhara)</td>
<td>2004-1992</td>
</tr>
<tr>
<td>Mentuhotep IV (Nebtawyra)</td>
<td>1992-1985</td>
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<tr>
<td><strong>12th Dynasty</strong></td>
<td>1985-1773</td>
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<tr>
<td>Amenemhat I (Sehetepibra)</td>
<td>1985-1956</td>
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<tr>
<td>Senusret I (Kheperkara)</td>
<td>1956-1911</td>
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<tr>
<td>Amenemhat II (Nubkaura)</td>
<td>1911-1877</td>
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<tr>
<td>Senusret II (Khakheperra)</td>
<td>1877-1870</td>
</tr>
<tr>
<td>Senusret III (Khakaura)</td>
<td>1870-1831</td>
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<td>Amenemhat III (Nimaatra)</td>
<td>1831-1786</td>
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<td>Amenemhat IV (Maakherura)</td>
<td>1786-1777</td>
</tr>
<tr>
<td>Queen Sobekneferu (Sobekkara)</td>
<td>1777-1773</td>
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### Table 17b: Egyptian Chronology: 13th and 14th dynasty (after Shaw 2003)

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<td>13th Dynasty (all Egypt)</td>
<td>1773-after 1650</td>
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<td>Wegaf (Khutawyra)</td>
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<tr>
<td>Sobekhotep II (Sekhemra-khutawy)</td>
<td>Dates not provided</td>
</tr>
<tr>
<td>Iykhernefert Neferhotep (Sankhtawy-sekhemra)</td>
<td>Dates not provided</td>
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<tr>
<td>Ameny-intef-amenemhat (Sankhibra)</td>
<td>Dates not provided</td>
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<tr>
<td>Hor (Awibra)</td>
<td>Dates not provided</td>
</tr>
<tr>
<td>Khendjer (Userkara)</td>
<td>Dates not provided</td>
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<tr>
<td>Sobekhotep III (Sekhemra-sewadjtawy)</td>
<td>Dates not provided</td>
</tr>
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<td>Neferhotep I (Khasekhemra)</td>
<td>Dates not provided</td>
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<td>Sahathor</td>
<td>Dates not provided</td>
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<tr>
<td>Sobekhotep IV (Khaneffera)</td>
<td>Dates not provided</td>
</tr>
<tr>
<td>Sobekhotep IV (Khanafera)</td>
<td>Dates not provided</td>
</tr>
<tr>
<td>Sobekhotep V</td>
<td>Dates not provided</td>
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<tr>
<td>Ay (Mernefera)</td>
<td>Dates not provided</td>
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<td>14th Dynasty</td>
<td>1773-1650</td>
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Minor ruler contemporary with the 13th and 15th Dynasty
Table 17c: Egyptian Chronology: 15th to 17th dynasty (after Shaw 2003)

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<td>1650-1550</td>
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<td>1650-1550</td>
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<tr>
<td>Salitis / Sekerher</td>
<td>Dates not provided</td>
</tr>
<tr>
<td>Khyan (Seuserenra)</td>
<td>Dates not provided</td>
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<tr>
<td>Apepi (Aauserra)</td>
<td>c. 1600</td>
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<tr>
<td>Khamudi</td>
<td>c. 1555</td>
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<tr>
<td>16\textsuperscript{th} Dynasty</td>
<td>1650-1580</td>
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<tr>
<td>Theban early rulers contemporary with the 15\textsuperscript{th} Dynasty</td>
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</tr>
<tr>
<td>17\textsuperscript{th} Dynasty</td>
<td>c. 1580-1550</td>
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<tr>
<td>Rahotep</td>
<td>Dates not provided</td>
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<tr>
<td>Sobekemsaf I</td>
<td>Dates not provided</td>
</tr>
<tr>
<td>Intef VI (Sekhemra)</td>
<td>Dates not provided</td>
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<tr>
<td>Intef VII (Nubkheperra)</td>
<td>Dates not provided</td>
</tr>
<tr>
<td>Intef VIII (Sekhemraherhermaat)</td>
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<tr>
<td>Sobekemsaf II</td>
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</tr>
<tr>
<td>Siamun (?)</td>
<td>Dates not provided</td>
</tr>
<tr>
<td>Taa (Senakhtnenra / Seqenenra)</td>
<td>c. 1560</td>
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<tr>
<td>Kamose (Wadjkheperra)</td>
<td>1555-1550</td>
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**Table 17d:** Egyptian Chronology: 18th Dynasty (after Shaw 2003)

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<tr>
<td><strong>18th Dynasty</strong></td>
<td>1550-1295</td>
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<tr>
<td>Ahmose (Nebpehryta)</td>
<td>1550-1525</td>
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<tr>
<td>Amenhotep I (Djeserkara)</td>
<td>1525-1504</td>
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<td>Thutmose I (Aakheperkara)</td>
<td>1504-1492</td>
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<td>Thutmose III (Menkheperra)</td>
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<td>Queen Hatshepsut (Maatkara)</td>
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<td>Tutankhamun (Nebkheperura)</td>
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<td>Ay (Kheperkheperura)</td>
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<td>Horemheb (Djeserkheperura)</td>
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Table 18: Radiocarbon dates: Egypt (after Bronk Ramsey et al. 2010) (NB: only the dates which are crucial for this thesis are provided)

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<td>Wegaf</td>
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Table 20: Approximate absolute chronology for the Aegean Bronze Age (after Manning 2010)

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<td>EC I</td>
<td>3100-3000</td>
<td>EH I</td>
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<td>(2900-2650)</td>
<td>Kamos phase</td>
<td>2900-2650</td>
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<td>EC II Keros-Syros</td>
<td>2650-2500</td>
<td>EH II</td>
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<td>EM IIB</td>
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<td>Kastri phase</td>
<td>2500-2250</td>
<td>Later EH II / Leukandi I</td>
<td>2500-2200</td>
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<td>EM III</td>
<td>2200-2100/2050</td>
<td>Kastri phase and into Philakopi I phase</td>
<td>2400-2200</td>
<td>EH III</td>
<td>2250-2100/2050</td>
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<td>MH</td>
<td>2100/2050-</td>
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<td>LC I</td>
<td>1700/1675-1625/1600</td>
<td>LH I</td>
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<td>1615/1600-</td>
<td>LH IIA</td>
<td>1635/1600-1480/1470</td>
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<td>LH IIIB</td>
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<td>LC III</td>
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<td>LH IIIA1</td>
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<td>LH IIIC</td>
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Table 21: Similarities between World Systems Theory and Game Theory

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<td>zones / players</td>
</tr>
<tr>
<td>the impact of culture</td>
</tr>
<tr>
<td>alliances / coalitions</td>
</tr>
<tr>
<td>cyclical behaviour</td>
</tr>
<tr>
<td>learning / reasoning</td>
</tr>
<tr>
<td>autarky</td>
</tr>
<tr>
<td>equilibrium</td>
</tr>
</tbody>
</table>
Table 22: How Game Theory operates
Table 23: Game Theory: a competitive game with a coalition
Table 24: Nash equilibrium
Table 25: The economic phases of the 'Single World System' as described by Frank 1993

<table>
<thead>
<tr>
<th>Phase described by Frank (1993) as:</th>
<th>Cycle-Phase</th>
</tr>
</thead>
<tbody>
<tr>
<td>contracting/descending</td>
<td>1700-1500 / 1400 BC</td>
</tr>
<tr>
<td>expanding/ascending</td>
<td>1400-1200 BC</td>
</tr>
<tr>
<td>contracting/descending</td>
<td>1200-1000 BC</td>
</tr>
<tr>
<td>expanding/ascending</td>
<td>1000-800 BC</td>
</tr>
<tr>
<td>contracting/descending</td>
<td>800-550 BC</td>
</tr>
<tr>
<td>expanding/ascending</td>
<td>550-450 BC</td>
</tr>
<tr>
<td>contracting/descending</td>
<td>450-350 BC</td>
</tr>
<tr>
<td>expanding/ascending</td>
<td>350-250 / 200 BC</td>
</tr>
<tr>
<td>contracting/descending</td>
<td>250/200-100 / 50 BC</td>
</tr>
<tr>
<td>expanding/ascending</td>
<td>AD 100 / 50 BC- 150 / 200</td>
</tr>
<tr>
<td>contracting/descending</td>
<td>AD 150 / 200-500</td>
</tr>
<tr>
<td>expanding/ascending</td>
<td>AD 500-750 / 800</td>
</tr>
<tr>
<td>contracting/descending</td>
<td>AD 750 / 800-1000 / 1050</td>
</tr>
<tr>
<td>expanding/ascending</td>
<td>AD 1000 / 1050-1250 / 1300</td>
</tr>
<tr>
<td>contracting/descending</td>
<td>AD 1250 / 1300-1450</td>
</tr>
<tr>
<td>expanding/ascending</td>
<td>AD 1450-1600</td>
</tr>
</tbody>
</table>
**Table 26:** An overview of the 3rd Millennium BC. Major characteristics and some important events.

<table>
<thead>
<tr>
<th>Third Millennium BC</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cultures of Akkad, Assur, Mari and Ebba flourish, to reach their peak in the 2nd Millennium BC.</td>
</tr>
<tr>
<td>Advanced urbanised civilisations. Progress in technology, metallurgy and pottery making. Full domestication of the horse in central Asia. New warfare techniques and equipment developed.</td>
</tr>
<tr>
<td>World population is doubled. Increase of population in the Mediterranean.</td>
</tr>
<tr>
<td>Social stratification and accumulation of profit. Personal distinctiveness and national identity as seen in writing and monumental architecture (e.g. Old Kingdom Pyramids in Egypt, Ziggurats in Sumer, Buena Vista observatory in Peru). Gilgamesh immortalised himself with the first Literary work in the world history (epic of Gilgamesh, c. 2700 BC)</td>
</tr>
<tr>
<td>Long-distance overland and maritime trade established and developed.</td>
</tr>
<tr>
<td>23-22nd cent. BC. Economic crisis in the Middle East and the Eastern Mediterranean, including Egypt, Crete and the Aegean. This crisis was due to warfare, migration, natural catastrophes and The Harappan civilisations collapse. Decline in Egypt. Indo-Europeans migrate to Greece.</td>
</tr>
<tr>
<td>Late: Anatolian metallurgical riches are transported to the Cyclades and Greek Mainland via Troy. Anatolia is sea-linked with Crete, Syria and Cilicia. Crete is connected with Anatolia, the Levant, Egypt, Libya, and finally the Cyclades and the Greek Mainland, via Kythera.</td>
</tr>
<tr>
<td>23rd-22nd cent. BC. Akkadian Sargon the Great conquers the area from Elam to the Mediterranean Sea, inc. Mesopotamia, parts of modern Iran, and Syria, parts of the Anatolia and the Arab Peninsula. Sumerians formed the 3rd Dynasty of Ur, later to be attacked be the Amorites, who infiltrated Mesopotamia, Syria, Palestine, etc.</td>
</tr>
</tbody>
</table>
### Table 27: The A-Z principles of Bronze Age economy, with emphasis placed on the Eastern Mediterranean System

<table>
<thead>
<tr>
<th>Principle</th>
<th>Examples</th>
</tr>
</thead>
</table>
| **A** | Bronze Age global economy (and GT 'equilibrium') depended on player-to-player and zone-to-zone interactions, i.e.  
- the economies of individual states,  
- how these states interacted between them, politically and economically.  
*Recession in one part of the system could bring development and economical progress to another (table 28).* |
*Archaeological evidence from Egypt: the 'shops' or market (marketplaces) seen in tomb reliefs of the fifth, sixth and eighteenth dynasty, e.g. tomb of Khnumhotep and Niankh-khnum (see Kemp 1989: 253).* |
| **C** | Economic progress and WS expansion correspond to:  
- prolonged production and commerce;  
- wealth accumulation and the prosperity of nobility;  
- population growth and increase in city size (Frank 1993: 384);  
- diplomatic missions / marriages or expansionary policy.  
Economic crisis and recession correspond to:  
- periods of reduced production and trade,  
- general cultural collapse,  
- internal and external conflict,  
- pestilence and environmental reasons  
  *diminution of city numbers and sizes (Frank 1993: 384)*  
*To expand his rule, Thutmose III organised military campaigns, 'Egyptianised' the sons of his enemies and took non-Egyptian wives (Bryan 2003: 238 and Redford 1992: 178, 198, (tables 29, 33)).  
*According to Schloen (Schloen, on Journals - press release 1 Apr. 2014) if the Aegean eruption took place during the reign of Ahmose I (Ritner and Moeller 2014), then this disastrous eruption could be the reason why the Hyksos were defeated by the Thebans. This example demonstrates how the GT 'equilibrium' could have been disturbed by an environmental disaster (= in GT, a 'contra aequilibrium' factor – see chapter Seven).* |
**Trade (function)**

Trade activity stimulated local and global ancient economy. Regardless of era and area, trade as a socio-economic force was dependent upon:

- political / economic / commercial institutions and agents
- status and profit,
- production, supply and demand,
- price and value formation, 'monetisation', [monetisation]

Wallerstain (1991) rejected the theory that regular exchange of surplus (trade) can also affect the internal character of independent world system zones. However, according to Frank and Gills (2000: 6), trade, production and the division of labour should not be seen as separate aspects in world system economy, as trade configures the character of production and labour division.

**Elite class conducting trade and exchange**

Childe (1942: 139) argued that:

- trade and exchange in the Bronze Age was, since the beginning, a political inter-relational process between the elites situated at the core of a world system and their contemporary elites in the periphery.
- This mutually beneficial activity was motivated in the first place by the accumulation of surplus and in the second place, by the need of raw materials for manufacture.
- Thus, commercial ventures and military campaigns fell under the system of the same chains between core and periphery.

**Economic reasoning of**

The tendency of cores to expand and interconnect has economic rationale. Historically, expansion emerged through colonial, imperial, diplomatic and military activities. Motives for such an expansion were:

- to cover the demand for raw materials and wealth,
| Systemic Core Expansion & Expansionary 'Game Strategies' of Players | • to maintain or expand administrative bureaucracy,  
• to establish networks of communication and allies,  
• to increase agricultural and commodity production and  
• to sustain the costs involved in local conflicts (Frank 1993: 386). | • In GT terms, the set of actions of players (the players' strategy) included a mixture of both political / economic conflict and coalitions (chapter Two). |
|---|---|---|
| **G** The elite as a major economic force | • The role of the elite in the Bronze Age EM economy and exchange is of fundamental importance.  
• Indeed, as Frank has noticed, since Bronze Age economy was based on human, animal and plant productivity, territorial expansion (via the market, politics or networking) could be explained *ad hoc* as a means of exploiting and manipulating new resources, raw materials and wealth, land for agriculture and stock farming, working hands and marriage partners, consumption and taxation.  
• All of the above were always engaged on behalf (and for the benefit) of the elite and ruling class (Frank 1993: 386-387). Nevertheless, the direct or indirect surplus, trade enterprise and wealth accumulation between elites of different political boundaries, connected not only the productive / hegemonic classes, but also their societies' economic, social, political and ideological organisation (Frank 1993: 387). | • The Egyptian warfare and expansionary policy of Hatshepsut and Thutmose III, were both undertaken in order for these rulers to exploit more lands, peoples and natural resources (Bryan 2003: 228-241).  
• A-E inter-elite negotiations were the basis for a wider, sociocultural communication between the two regions: a connection reflected in all aspects of life, from art to rituals (see the Annex for individual examples). |
| **H** Luxury & Prestige Goods | • Trade, exchange and transfer of surplus are evidence of systemic relationships.  
• However, according to Frank (1993: 388), despite trade in both luxury items and staple commodities being indicators of inter-penetrating accumulation; luxury goods, when exchanged, are of higher importance than staple products, as these (either as raw materials or as finished products) practically form an inter- | • The author agrees with Jane Schneider (1977) that a prestige goods economy is of major importance for the reproduction of power structures. She disagrees with Wallerstein (1991, 1993) who argued that spatial links based on the exchange of luxury goods should not be used to spatially bind world systems. On the contrary, she argues that practically tracking luxury items on the map (see the Annex) can be an efficient tool in the understanding of trade routes and |
elite transaction. § staple goods, § luxury goods

- Frank (1993: 388) noticed that, besides serving elite consumption and accumulation, the exchange of high value products induced social classification.

commercial practices between two or more parts of the system (chapters Three, Four and the Annex, with examples). Local elites - and the practice of wealth accumulation itself - play a major role in the circulation of luxury items.

### I

<table>
<thead>
<tr>
<th>Exotica: types &amp; symbolism</th>
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</table>
| • Exotic goods from afar had become popular among the Bronze Age elites and middle to high social classes. Anything foreign, from staple goods to luxury and prestige objects, was in demand. The EM Bronze Age elite, connected to institutions such as the palaces, habitually collected and consumed luxury goods and raw materials from afar, for both personal use and re-circulation; yet they sometimes needed to turn to their nearby regions reciprocally in order to obtain these goods (Hafford 2001: 57).
| • To Helms and Petrovic (Helms 1988; 1993; Petrovic 2003: 22-25; 139-140), luxury goods from afar (whether commodities acquired via trade or inter-elite gifts; or even souvenirs from trips abroad) received special significance, as they had come from an area of the world which was situated outside the limits of one's village or homeland.
| • To Voutsaki (1995: 13), the consumption of local luxury goods by the elite nurtured social ranking; and that the legitimisation of one's social power (for example, the legitimisation of the status of the king or a local chief) was based on the consumption of exotica.
| • According to Helms (1993: 9), there is a mythical dimension behind luxurious exotica. The act of acquiring or exchanging exotica, their production; even the people who were involved in this production or trade and exchange (the producer, the middleman, the consumer) received power and prestige out of this mythical dimension, which was connected to the 'unknown' and sometimes 'legendary' outside.
| • Exotica were considered valuable. According to Van Wijngaarden (1999: 3), value equals the interaction between the desirability of a 'product' and the difficulty of acquiring it.

- See the numerous examples of exotica in the Annex.
- The view of the author of this thesis is that the elite acquisition and re-circulation of exotica became a fashion; e.g. see Bronze Age Egyptomania in research question five (in the conclusions).
- Middle class also consumed exotica. See for example the Minoan (Kamares) and Minoanising pottery discovered at Harageh and Lisht in the Annex. The archaeological contexts, from which the pottery has derived, demonstrate that various socio-economic classes (except of course the poor) participated in the acquisition of exotica, exotic-like and exotic-inspired items. Similarly, on Crete, one sees Kamares pottery in non-palatial contexts, such as sanctuaries (Walberg 1983).
• This fashion for all-things-exotica accelerated long-distance trade and exchange, along with the diplomatic acts to accompany it and the cultural exchange itself. Exotica could even become collectable and receive special value compared to local products.
• Exotica should be examined together with foreign-like objects (i.e. imitations and replicas of foreign artefacts) and antiques. Also, with objects which have received foreign artistic and other inspiration when produced; objects produced locally, but made of foreign (imported) raw materials; and last, modified exotic objects.
• The appeal to the exotic is not a strictly elite phenomenon. Various socio-economic classes (except of course the poor) participated in the acquisition and consumption of exotica, exotic-like and exotic-inspired items, including their imitations and replicas. This phenomenon can be described as mass luxury: i.e. the consumption of luxury items (among them exotica) which target the 'aspiring' middle to high social classes. Here, the term 'aspiring class' implies the middle to high social strata, which are not strictly palace-related. [§ exotica, § innovation, § souvenir, § artefacts of foreign inspiration, § replicas of foreign items, § imitations of foreign items, § locally produced, made of foreign material, § modified exotica].

Andrew Sherratt (2000: 120-124) described the progress of ancient economies as a transition from nuclearity to cores and peripheries and considered profit accumulation as a result of sedentism.
• With sedentism, a new socio-economic era had begun: the need for metal (especially copper and tin) for weaponry, tools and art, created the emergence of cyclical and repeated exchange that gradually led to mobile wealth. Technological progress flourished and soon a high degree of specialisation in production was to take place (Sherratt A. 1994: 339; 2000: 120-124).

• Metal and metal objects play a central role in the processional scenes in Thebes. The Aegeans bring metal ingots to the Egyptian Court (see the spreadsheet: sheet 'Aegean processional scenes) with examples.
• The Amarna letters also manifest how the circulation of metal operated. For instance, EA 35 (Moran 19992: 107-109) discusses trade of copper and silver between Egypt and Cyprus.
| **K** | 122, 125).  
• Bronze Age trade of metals and weapons became one of the principle concerns of the hegemonic class, as it increased military capacity and ensured control over sources of economic supply, including trade itself (Frank 1993: 388). For metal circulation, see also Pare 2000; Harding 2000; Sherratt A. 1994: 339; 2000: 120-122; Sherratt S. 2000a: 82-98.  
• In GT terms, the circulation of metal is a (game) strategy for profit accumulation. [§ sedentism]. |
| **L** |  
• Urbanism promoted both economic development and material culture.  
• Early Bronze Age urban centres such as the first cities in Mesopotamia imported new materials and exported some of their products. When this happened, new needs were born under the influence of commercial activity: weapons and tools, clothing, ornaments, drinking vessels, furniture, means of personal transport, etc. were all associated with the promotion of wealth and social status.  
• Consequently, urbanism lead to the emergence of the elite class and new practices of consumption were promoted.  
• Simultaneously, products, and especially luxury objects, took on an ideological role, i.e. they were correlated to religious and social beliefs and practices, along with their practical use.  
• The diagrams in the Annex show a concentration of Aegyptiaca in major urban centres such as Knossos.  

| World economic borders = world system borders |  
• The first economic, trade, exchange and networking system essentially became the first world system and had a tendency to spread.  
• Hence, this system can be observed in the Bronze Age Mediterranean and Europe, and eastward, from Iran to western India (Sherratt A. 1994: 339; 2000: 120-122, 125). [§ world economy]. |

- Trade systems demand that the local production is sufficient to cover the needs of a local community and provide economic independence to its members. [§ autarkhy].
- When production supplies are more than enough, then surplus provides goods for exchange, according to the scheme of demand-consumption.
- The market process (and even warfare and migration) can also be enforced by the fact that local production is sometimes not sufficient to cover the needs of a society or a social class.
- In this case, a series of special trade deals and diplomatic negotiations must take place in order for the demand for raw materials/products/working hands to be satisfied.
- Therefore, as Kristiansen notices (1998: 52), dependent structures such as semi-peripheries and peripheries, aimed at the import of prestige goods from the developed core/s in order to act by themselves as centres to further zones.
- Similarly, in GT terms, coalitions took place in order to cover the need for desired products (the game's payoff).


<table>
<thead>
<tr>
<th>Trade as a social force for the consumption of exotica</th>
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<tbody>
<tr>
<td>- Trade systems demand that the local production is</td>
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<tr>
<td>sufficient to cover the needs of a local community</td>
</tr>
<tr>
<td>and provide economic independence to its members.</td>
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<tr>
<td>[§ autarkhy].</td>
</tr>
<tr>
<td>- When production supplies are more than enough, then</td>
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<tr>
<td>surplus provides goods for exchange, according to</td>
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<tr>
<td>the scheme of demand-consumption.</td>
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<td>- The market process (and even warfare and migration)</td>
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<tr>
<td>- In this case, a series of special trade deals and</td>
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<td>for the demand for raw materials/products/working</td>
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<td>order to cover the need for desired products (the</td>
</tr>
<tr>
<td>game's payoff).</td>
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<tr>
<th>Wealth &amp; wealth symbolism</th>
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<tbody>
<tr>
<td>- Because of the unsafe</td>
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<tr>
<td>lifestyle circumstances</td>
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<tr>
<td>of antiquity, where</td>
</tr>
<tr>
<td>dangers were always at</td>
</tr>
<tr>
<td>the door, Bronze Age 'capital' / wealth was mainly</td>
</tr>
<tr>
<td>portable, as most</td>
</tr>
<tr>
<td>valuable items could be</td>
</tr>
<tr>
<td>worn, carried or moved</td>
</tr>
<tr>
<td>on wheels.</td>
</tr>
<tr>
<td>- Typical commodities of</td>
</tr>
<tr>
<td>the urban environment</td>
</tr>
<tr>
<td>were metalwork, textiles</td>
</tr>
<tr>
<td>and psychotropic</td>
</tr>
<tr>
<td>consumables such as</td>
</tr>
<tr>
<td>drugs and alcoholic</td>
</tr>
<tr>
<td>drinks. Elites could</td>
</tr>
<tr>
<td>vaunt their wealth by</td>
</tr>
<tr>
<td>wearing expensive</td>
</tr>
<tr>
<td>jewellery and decorating</td>
</tr>
<tr>
<td>their residence or</td>
</tr>
<tr>
<td>tomb with unusual,</td>
</tr>
<tr>
<td>exotic motifs.</td>
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<tr>
<td>- Anything foreign and</td>
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<tr>
<td>exotic became the</td>
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<td>synonym of luxury. All</td>
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<tr>
<td>at once, according to</td>
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<tr>
<td>Andrew Sherratt, the</td>
</tr>
<tr>
<td>rapid development of</td>
</tr>
<tr>
<td>urbanism lead to surplus,</td>
</tr>
<tr>
<td>exchange, an early form</td>
</tr>
<tr>
<td>of 'capitalism', division</td>
</tr>
<tr>
<td>of labour, industrialisation</td>
</tr>
<tr>
<td>and rapid technological</td>
</tr>
<tr>
<td>development (Sherratt A 1994: 340, 341; 2000:</td>
</tr>
<tr>
<td>The Avaris frescoes (chapter Five) manifest the</td>
</tr>
<tr>
<td>consumption of exotica</td>
</tr>
<tr>
<td>by the Avarian palace</td>
</tr>
<tr>
<td>elite.</td>
</tr>
</tbody>
</table>
As such, wealth accumulation became a desirable GT 'payoff'.

[§ wealth accumulation → prestige].

Towards the end of the Bronze Age, motives were quite similar to older economic models but political decentralisation strengthened private enterprise, manifested in the form of piracy or trade. The phenomenon was later accompanied by a technological shift from bronze to iron and went hand in hand with agricultural and settlement reorganisation and craft specialisation. Accumulation of riches was reinforced in the hands of the elite, which, as a result of a variety of entrepreneurship and profit activities in marginal areas, experienced renewed growth and expansion (Sherratt A. 1994: 342-343).

Whereas private trade enterprise (and particularly non-palace associated trade with foreign lands) is not that clear on Crete between 1900 and 1400 BC, the villas may have functioned as centres of production and circulation of certain items (see tables 28, 35).

On the question of whether one should talk about capitalism or not in antiquity, Gills and Frank (1993: 106) suggest that the world system pre-dates the development of modern capitalism, perhaps by several thousand years.

Amin (1993: 247) maintains that capitalism is indeed a relatively new phenomenon in universal history (not earlier than AD 1500): however he sees protocapitalism in anterior societies. According to him, the elements of modern capitalism, as described by the Marxist concept, are totally different to the characteristics of protocapitalism.

Ekholm and Friedman (1993: 60-61) have examined the phenomenon is association with imperialism and exploitation. They describe core-periphery systems as imperialistic insofar as the centre of the system accumulates wealth (i.e. capital) based on the production of a wider area. This capital receives the form of taxation, gift contributions, booty, accumulation of finished products and raw materials, foodstuff, etc.

Ancient Egypt had a class system, collected taxes and developed some form of private enterprise (Kemp 1989: 232-260). Thus, it is difficult to see how this civilisation did not demonstrate elements of protocapitalism.
differences between early capitalism as a whole and the capitalism of today is that the former was based on rent-taking or tax farming, the hiring out of slaves and their sale. However, he claims that researchers should set a high value on the fact that ancient economy was primarily based on self-sufficient households rather than a more integrated market, as happens today.[$imperialism, § capitalism,$protocapitalism,$imperialism,$taxation,$public accumulation].

<table>
<thead>
<tr>
<th><strong>Q</strong></th>
<th><strong>Mixed economy: command, market, reciprocal &amp; revenue schemes</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>• Bronze Age economy operated within a variety of economic parameters. These were command, market, reciprocal and revenue economy. This mixed economic scheme also applied to EM interrelations and was always dependent upon historical and other circumstances.[$mixed economy,$command economy,$market economy,$reciprocal economy,$revenue economy].</td>
</tr>
<tr>
<td></td>
<td>• All these economic parameters are effectively 'game' strategies: the players payoff is a desirable profit.</td>
</tr>
<tr>
<td></td>
<td>• The diplomatic exchange of greeting gifts in chapter Six reflects aspects of reciprocal and revenue economy.</td>
</tr>
</tbody>
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<table>
<thead>
<tr>
<th><strong>R</strong></th>
<th><strong>Reciprocity = the economy of obligation</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>• Reciprocity is one of the key-elements of Bronze Age economy. Reciprocity is the economy of obligation: one gives something to another with the expectation that the receiver will, in the future, return the favour with a favour or with a gift of at least equal value to the first gift / favour offered. This economic scheme is widely noticed in the inter-elite foreign affairs during the Middle and Late Bronze Age EM (Warburton 2000: 72-76).</td>
</tr>
<tr>
<td></td>
<td>• See for example, Moran 1992: EA 35: 10-11: correspondence between the rulers of Cyprus and Egypt.</td>
</tr>
</tbody>
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<tr>
<th><strong>S</strong></th>
<th><strong>Exotica: gift</strong></th>
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<tbody>
<tr>
<td></td>
<td>• Reciprocity also incorporates the act of international gift exchange. Exotic and high-value gifts were exchanged among the Bronze Age elites on the basis of kingship, friendship,</td>
</tr>
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<td></td>
<td>• Texts like the Amarna Letters demonstrate the act of exotic gift-exchange. See, for example, Holmes 1975: 379; Liverani 1990: 216. For the official gift in Ancient Egypt see Bleiberg 1996.</td>
</tr>
</tbody>
</table>
### Exchange versus tax and tribute

Trading and diplomatic correspondence were also linked to the exchange of "greeting gifts" among the Bronze Age EM elites (Sahlins 1972: 214).

- As for the exchange of gifts between elites, Kristiansen (1998: 56) adds that "this represents a universal element in social reproduction, which may however, take on expansionist forms, leading to more competitive strategies, which may finally be conducted in migrations or social movements of people, whether traders or larger groups." (Kristiansen 1998: 56).

- To Hafford (2001: 57), inter-elite high-value gift exchange was essentially a kind of trade conducted among leaders.

- Gift exchange, trade and even taxation can be seen as 'game strategies' for the accomplishment of specific payoffs (which differed from state to state, according to historical circumstances). [§ tribute, § gift exchange, § trade, § market].

### T

**Public and private accumulation**

- The aspects of private and public accumulation indicate how wealth is gathered and handled and how elites managed it. Private and public accumulation are combined and never exist in isolation (Frank & Gills 1993: 97).

### U

**Short and long distance trade**

- Short and long-distance trade correlates with the market and market economy itself. Trade and exchange, i.e. the transfer of goods equals the movement of people. Movement of people enables additional interaction such as the circulation of cultural, technological, mythical, artistic and other ideas, political and other treaties, intermarriages, etc. (i.e. networking) (Burns 2001: 291, 295).

- An example of the market from Egypt: a wall-painting from the tomb of Kenamun and Mutuy (TT 162), mayor of Thebes (eighteenth dynasty) shows the arrival at Thebes of a fleet of sea-going ships from Syria and other lands. The foreigners are first shown unloading the cargo and then presenting their goods to the mayor. What one cannot be sure about is whether these foreigners were commercial agents from officials to officials or worked for...
• The early forms of trade were negatively reciprocal. Domestic trade and exchange and the market itself became social and political processes and turned into an international phenomenon (Hirth 1978: 35-36; Liverani 1987: 66; Ekholm and Friedman 1993: 60; Hafford 2001: 47-50). Luxury goods played a critical role in the trade process. Yet, foreign trade was not always a royal monopoly.

V

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<thead>
<tr>
<th>The role of palaces / institutions</th>
</tr>
</thead>
<tbody>
<tr>
<td>• The elites of the EM were the primary consumers of international prestige goods. These were essentially the 'state' (governments) and they were in constant competition for resources and raw materials.</td>
</tr>
<tr>
<td>• The state would collect taxes, crops, wool and agricultural products and redistribute them in order to 'pay' traders, craftsmen, etc. for their services (tables 28-43). The re-cycling of goods inside and outside the borders of a nation legitimised state rule (Hafford 2001: 65). As such, in GT terms, the consumption and circulation of exotica because a strategy, for the achievement of a very specific payoff: the maintenance of power.</td>
</tr>
<tr>
<td>• The EM state institutions were economic units with political and / or religious backgrounds (e.g. the Minoan and Egyptian palaces, the Egyptian temples).</td>
</tr>
<tr>
<td>• Thus, Warburton (2005: 169, 175) introduces the 'palace-economy systems', run by bureaucrats. According to Warburton, it was the control of agricultural production and the tax acquired by it that allowed the institutions to produce surplus in order to invest in textiles, expensive raw materials and services.</td>
</tr>
</tbody>
</table>

• From

<table>
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<tr>
<th>From</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Other sources of wealth in the Bronze Age EM - all primarily or secondarily controlled by the state - were farming and fishing; the manufacture of goods; mining of metals and raw materials themselves (See Davis N. d. G. 1930; Kemp 1989: 253).</td>
</tr>
</tbody>
</table>

• For an example of foreign trade as a non-royal activity see the famous scene in the tomb of Khnumhetep at Beni Hasan. This scene shows the arrival of a Palestinian group of traders from Moab, bringing aye-paint (msdmt) with them (Kemp 1989: 387). Therefore, one could assume that small trading groups of foreigners operated in Egypt. |

• Many of the exotica presented in the Annex and spreadsheet come from elite and palace contexts.
<table>
<thead>
<tr>
<th>production to consumption, &amp; other sources of wealth</th>
<th>materials; local or international commerce and exchange (including sea trade); muscle power and labour; warfare and other expansionary policies; slavery (with some limitations) and various forms of taxation.</th>
</tr>
</thead>
</table>
| X | • With the development of the market, 'trade specialists' or traders were necessary in order to cover the demand for exotica, the circulation and exchange of which had become a fashion among elite members (Warburton 2005: 172). These individuals were based in areas where the market was developed / developing, such as the gateway communities (Hafford 2001: 48). In the Middle and Late Bronze Age traders worked either as freelance merchants or for the palaces and elites (i.e. for the state). Yet, the term 'freelance traders' is problematic since all freelance traders were somehow state-dependent (taxed).  
• It is also likely that freelance traders (in a similar manner to other professionals) created trader 'guilds' during the Late Bronze Age, if not earlier. Traders accumulated profit for their patrons and themselves. Consequently, some traders who traded exotica entered nobility (Hafford 2001: 53). Moreover, traders played the role of middlemen (Lachmann 1986: 6). Intermediaries operated between cores and peripheries (similar to the gateways and diasporas) or between societies within the core. Middlemen were potent enough to affect the value of commodities and products (Hafford 2001: 49) [§ traders, § trader (and other professional) guilds), § traders' class]. |
| Y | • Gateways and diasporas are exceptional in Bronze Age economy since their communities often play the role of negotiators and intermediaries among the world system zones and in their economic, political and cultural dealings. Gateways and diasporas as sometimes so antagonistic and rival that they |
| Diasporas and gateways | • Warburton 2003: 184; 2004: 184; Hafford 2001: 52-53; Knapp and Cherry (1994: 136) argue that both private (freelance) and public traders operated in Ugarit. In Egypt, even during the fifth and sixth dynasty wall paintings from tombs depict the market and some freelance traders (e.g. tomb of Khnumhotep and Niankh-khnum). |

• A discussion of how an Aegean diaspora in the Delta might operate is provided in chapter Seven.
can even affect the course of distribution and 'value' of goods among the economic world system zones (Hafford 2001: 37-39; Curtin 1984: 2-12; Stein 1999: 47).

- In GT terms, gateways and diasporas operate as 'links' between players, passing information and knowledge from player to player (see chapter Two). [$\textit{§ gateway, § diaspora}$).

<table>
<thead>
<tr>
<th>Treaty trade</th>
</tr>
</thead>
</table>
| - Treaty trade is the inter-elite long-distance trade conducted under specific agreements and alliances between two parts. Treaty trade is an economic, political and diplomatic procedure: it facilitates and accelerates the process of foreign trade and it designates a specific commercial legislation to cover the needs and risks of trade process (Curtin 1984: 30-32; Hafford 2001: 168). Treaty trade is effectively an elite phenomenon; nonetheless, even freelance trade specialists benefit from treaty-trade agreements conducted by rulers (Hafford 2001: 168).
- In GT terms, treaty trade is a form of strategy in co-operative games (chapter Four). [$\textit{§ treaty trade}$].
| **Z** |
| - For how treaty trade might operate for the benefit of the EM market see chapter Two. |
Table 28: Eastern Mediterranean and the Near East: a comparative world system view

<table>
<thead>
<tr>
<th>Eastern Mediterranean world-systemic view</th>
<th>Egypt / The Aegean</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Historical protagonists (Second Millennium, BC)</strong></td>
<td></td>
</tr>
<tr>
<td>The people of the Near East: Syria, Babylon, Mari, Aleppo, Elam, Hittites and Amorites, Hurrians, Kassites, Canaanites, Hebrews, Trojans and Persians), Egypt and the Kushites, the Aegean, Hellenic Mainland and Minoan Civilisations, Cyprus and the Levant</td>
<td></td>
</tr>
<tr>
<td><strong>20th to 18th century BC</strong></td>
<td><strong>19th and 18th centuries BC: Egypt</strong></td>
</tr>
<tr>
<td>• The Eastern Mediterranean World System expands (Frank 1993: 396)</td>
<td>• Thirteenth Dynasty: Beginning of dynasty is peaceful. Capital: Ijitawy; administration similar to the twelfth dynasty (Papyrus Bulaq 18 / Mariette 1972). Egyptian prestige in Nubia and Western Asia (Callender 2003: 156-164). Relations with Cyprus, Nubia, Byblos and other regions in Syro-Palestine and the Near East (Callender 2003: 159-161; Ryholt 1997: 69-84). Asiatic elements: In the reign of Khasekhemre Neferhotep I Xois and Avaris are governed by local rulers. No Egyptian control remaining in the 'pro-invasion' Egyptian Kingdom (Callender 2003: 156-158).</td>
</tr>
<tr>
<td>• Establishment of Assyrian traders in Anatolia (c 1950 BC) and intense commerce in metals by Syro-Cilicia.</td>
<td>• Recession in Syria – Palestine (c 1900) (Frank 1993: 396)</td>
</tr>
<tr>
<td>• Harrapian decline in the Indus valley (c 1800) (Ratnagar 1981: 207)</td>
<td>• Harrapian decline in the Indus valley (c 1800) (Ratnagar 1981: 207)</td>
</tr>
<tr>
<td>• Evolution of trade and inter-polity relations (Frank 1993: 396)</td>
<td>• Evolution of trade and inter-polity relations (Frank 1993: 396)</td>
</tr>
<tr>
<td>• Mesopotamia expands trade routes towards the Persian Gulf (c 1900) (Frank 1993: 396)</td>
<td>• Mesopotamia expands trade routes towards the Persian Gulf (c 1900) (Frank 1993: 396)</td>
</tr>
<tr>
<td>• The Mesopotamian city of Assur flourishes until the 19th century BC and later, it is absorbed in a new political unity under Hammurabi (Frank 1993: 396)</td>
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</tr>
<tr>
<td>• Assyrian leader, Shamshi-Adad dominates Mari sometime c 1870 BC (Kupper 1973: 8-</td>
<td>• Assyrian leader, Shamshi-Adad dominates Mari sometime c 1870 BC (Kupper 1973: 8-</td>
</tr>
</tbody>
</table>

Frank’s phase (1993) not discussed

19th and 18th centuries BC: Crete and the Aegean Islands

• Protopalatial Period: First palaces older than c 1900 BC (Tomkins and Schoep 2010, Schoep 2010: 115). Old definition of 'palace' (i.e. 'court' building which equals the state itself; and thus, the residence of a political, religious and economic authority: production, collection, storage, consumption, distribution) is problematic. Recently term 'court compounds' has replaced 'palaces' and also applies to extra-palatial households (Schoep 2002a; 2010). Revised 'palace compounds': communal ceremonial centres for elite and non-elite (Driessen
Shamsi-Adad's kingdom spreads from the Zagros hills to the Euphrates. Prosperity due to extended trade (Kupper 1973: 8-22).

The city of Mari controls the caravan routes linking the Persian Gulf with Syria and those from Elam to the Mediterranean coast (18th century BC) (Kupper 1973: 1-14; Bardet et al. 1984). Interactions of Mari with Cyprus, Ugarit, Byblos and other Eastern Mediterranean posts (e.g. correspondence: Dalley 2002).

Assur, Mari, Byblos and Ugarit market economies thrive, as access to raw materials was given via neighbouring areas (c 2000-1700 BC).

Special trade and cultural relations between Egypt and Byblos (e.g. Byblos copies Egyptian royal insignia) (Callender 2003: 166-168).

Economic activity is increased in Cilicia and Cyprus and also on Crete; the last, participating in core-periphery relations with Egypt and the Levant (c 2000-1700) (Sherratt A. and S. 1991: 368).

Eshnunna, Qatna and Aleppo compete with Mari’s trade, even though their relations with Mari are mainly friendly. Trade connections (trade of metal and luxury items) of Mari with Cyprus and the Aegean via Allepo (capital: Iamkhad) (Kupper 1973: 14-21).


The Hurrians penetrate northern Mesopotamia and Upper Syria (early Second Millennium) (Gernot 1981).

Hammurabi extends Babylonian control over Mesopotamia and fights the Assyrians. Babylon follows a combined practice of private and palatial extra-state trade under commercial laws (Kupper 1973: 28-36, 38).

The Kassites invade the Babylonian Kingdom (c 1741) (Kupper 1973: 28-36, 38).


Emergence of a powerful elite; urbanisation and social stratification; fresh cultural beliefs and rituals; technological progress; development of a class of specialised workers; new agricultural and farming methods; evolution of sailing; use of writing, seals and new weight units in administration; increase of contact, networking and exchange between Protopalatial Crete and the outside world (Treuil et al 1996: 219-244; Manning 2008: 105-120). Crete has relations with the Greek Mainland and the Peloponnese, via MM II Kythera (Dickinson 1994: 242). Trade with West Cyclades, the Dodecanese, the Anatolian coast, Cyprus, Syria and Mesopotamia (Treuil et al 1996: 233; Dickinson 1994: 243). Kommos: international contacts (Betancourt 1984: 89-92; Shaw, J. 1998).

Interactions: Crete: trade funnel of the Mediterranean, 're-cycling', importing and exporting, products and culture from, and to all directions, especially Anatolia, the Aegean Islands, the Greek Mainland, Cyprus, the Levant and Egypt (Tomkins and Schoep 2010 and particularly Schoep 2010; Knappett 2008; Sherratt A. and S. 1991: 368-369). Minoan stonework and Kamares vessels have been unearthed in various parts of the Mediterranean (Tomkins and Schoep 2010 and particularly Schoep 2010; Knappett 2008: particularly 122-123; Dickinson 1994: 239-243; Sherratt A. and S. 1991: 368-369). The trade network with the Greek Mainland - and especially Attica and the Saronic Gulf - is established via the 'western string' of the Cycladic islands (§ 'western string') (Schofield 1982: 9-25; Cherry and Davis 1982: passim; Davis 2001: 25-32, 50-76, 88; 2008; Barber, L.N. 2010).

Aegean Islands: Middle Cycladic chronology and its links with the Minoan and Helladic chronology problematic (tables 19, 20). Major settlements: Phylakopi 'second city', Hagha Irini of Kea (periods IV and V), MC Akrotiri, Ftellos, Hagios Ioannis Eleemon on Thera, Paroikia on Paros; Kastro / Grotta, Mikre Vigla on Naxos and Plaka on Andros (Barber, N.L. 2010A with further references). Pottery portrays the trade relations of these islands. MM II-III and MH II pottery unearthed in various Cycladic sites; locally produced pottery is also influenced by Crete and the Greek Mainland (Barber L.N. 2010a: 130-133 with further references).

- The expansion of the Hittites and Egyptians creates a new commercial landscape (18th century BC) (Callender 2003: 145-159)
- Emergence of Hattian / Hittite centres in the Anatolian plateau. Economic prosperity.
- Long-distance trade networks between the west and east Mediterranean.
- Crete and Cyprus are involved in the Eastern Mediterranean trade as intermediaries

### 18th to 16th century BC

- Crisis, destabilisation of political and ethnocultural systems, and mass migrations throughout the eastern European steppe and the Eastern Mediterranean: cultures disintegrate and new cultures are formed (1800/1750 and 1600/1500) (Chernykh 1992: 109, 305).
- General economic crisis at the Eastern end of the Mediterranean: urbanisation declined: In Egypt, the number of cities drops between 1800 and 1600 BC (Frank 1993: 396).
- The Hittites and Kassites conquer Anatolia and Mesopotamia and the Hurrians overrun the Levant (18th century BC)
- In Egypt, the beginning of the Thirteenth dynasty initiates the fall of the Middle Kingdom and the Second Intermediate period (Callender 2003: 156-164). The peaceful scenery is soon interrupted by the Hyksos (Hayes 1973: 44; Mellink 1995; Holladay 1997; McGovern 2000; Callender 2003: 159-168).
- (Asiatics) Hyksos invasion: multicultural cooperation of Semitic-speaking people (albeit highly Egyptianised) that brought a general turbulence to the whole of the Near-East. The Asiatics conquer (and control) immense areas with horses and chariots (Bourriau 2003: 174-182; Hayes 1973: 54-64).

### 17th to 15th century BC: Egypt

- **Dawn of Second Intermediate Period**: the Egyptian capital is transferred from Lisht to Thebes (Bourriau 2003: 173 / SIP: c 1650-1550 BC) (This phase covers the second half of the Thirteenth Dynasty). Asatics in the Delta. The Turin Canon mentions names of foreign rulers in Memphis (Ryholt 1997: 69-92). Asatics established in Avaris as early as the beginning of the Thirteenth dynasty (Bourriau 2003: 175). Ruler Nehesy, an Egyptian or Nubian (a name provided by Manetho) must have ruled Avaris for a short time and he is associated with the Fourteenth dynasty, the capital of which was Xois in the Western Delta (Ryholt 1997: 434).
- **Fifteenth dynasty**: Traditionally, only the Fifteenth dynasty rulers are called Hyksos. The Hyksos were supported by Asiatic minorities already living in the Delta, such as the *Aamu*. Fifteenth Egyptian dynasty is peculiarly Egyptianised (Ryholt 1997 and Bourriau 2003). Hyksos rulers in Avaris. Avaris an international crossroads (see e.g. pottery) (Bourriau 2003: 174-182). The Hyksos claim to be the rulers of both Upper and Lower Egypt, but it is known, from the Kamose stelae, that Hermopolis and particularly Cusae mark the southern boundary of their kingdom (Bourriau 2003: 182-183, 190; Rhoylt 1997: 170-180 and Simpson 2003: 345-350 for the Kamose stelae and ibid:

- **Aegean Islands - Interactions**: MC Cyclades develop relations with both the Greek Mainland and Crete and act as intermediaries between the two. Kea, Melos and Thera (the 'western string') has regular exchange with Crete (Davis 2008: 189-198 (Akrotiri, Haghia Irini, Phylakopi). Kea facilitates Minoan exchanges with the Greek Mainland and the Peloponnese (Davis 2008: 193-196). Melos is the 'Minoan bridge' to the rest of the Aegean (Sifnos, Dilos, Tinos, Paros and Naxos) (Dickinson 1994: 242; Davis 2008: 197). MMII connections between the Cyclades, the Greek Mainland and Crete are bidirectional. Kythera is also in contact with Crete (Chania in particular, as seen by EM III / MM IA pottery similarities (Coldstream and Huxley 1972: pl. 18, nos. 7-9, 13-15) and so is Rhodes (Cretan - Rhodes relations become vigorous in the following period (Benzi 1984).
• Instability and uncertainty in Mesopotamia. Two-hundred-year period of transmigration, disintegration of major hegemonies, and inevitable economic disaster, due to decline in trading activities. Collapse of maritime trade and regional social disruption' (18th century BC) (Edens 1992: 132).


• Trianda of Rhodes becomes a standard maritime stop, visited by both Cretan and Canaanite traders (Marketou 2010).

• At the same time, the Greek mainland inaugurates new trade routes to Italy, the Aeolian Islands and Vivara. The Peloponnese participates effectively in long-distance trade activities, and new routes connect the Corinthian Gulf with Argolid and the Aegean to Troy and the Black Sea (Sherratt A. and S. 1991: 370; Voutsaki 2010; Shelton 201).

• Contrary to Egypt, in the Aegean and Asia Minor, urbanisation progresses. New expansive power centres are created on the edge of the system, trying to gain independence to augment their enterprise and control over the core of the system. Areas of political control are extended (Sherratt A and S 1991: 369-370; see also Frank 1993: 396).

• The Hittites are present in north-central Anatolia (Eighteenth century BC) (Gurney 1973: 228-255; Gurney and Blegan 1973: 669-682).

• Mitanni and Kassites expand their borders in Syria and Mesopotamia (Gurney and Blegan 1973: 669-682). The Indus Valley civilisation (Harappa) declines due to extreme weather phenomena and ruinous flooding (Sherratt A and S 1991: 370; Ratnagar 1981: 207).

• Crete: Dawn of Final Palatial (or Monopalatial) period (c 1450): palaces take their final form; a powerful aristocracy. Crete receives influence by the Near East; trade with the Nubian site of Tumus; they befriend the kings of Kush and gain access to the Nubian gold mines (Bourriau 2003: 188). Lower Egypt keeps trading with Nubia via the oasis route (Bourriau 2003: 188).

• Sixteenth dynasty: The centre of power of the Sixteenth dynasty was Upper Egypt (map VIX: left). Sixteenth dynasty kings govern from Thebes, while Egyptian local chiefs also rule in important towns such as Abydos and Edfu. The Seventeenth dynasty Theban rulers are in power at the same time as the Hyksos Fifteenth dynasty, even though the beginning of the Seventeenth dynasty is problematic (tables 14, 17b, c, 18) (Bourriau 2003: 192; Ryholt 1997: 163-181).

• Seventeenth dynasty: Egyptian rule from Thebes. Atmosphere of instability in Upper Egypt. Thebes cease contact with Lower Egypt and Memphis (Bourriau 2003: 193; Ryholt 1997: 167-183). At the same time, Elephantine progresses semi-independently, occasionally even under Nubian control (Bourriau 2003: 194-196). The Kerma people (Nubians) trade with the Thebans and it is known that they fight on the side of Kamose during his campaigns against the Hyksos (Bourriau 2003: 196-203; Bietak 2007a: 19; Ryholt 1997: 172-175, 182-183). Kamose first retakes control of the route to the Nubian gold mines and then moves northwards to attack the Asiatics (Bourriau 2003: 197-206). Ryholt (1997: 172-175) mentions that Kamose's army did not enter the Nile Delta and thus, never attacked Avaris, but Kamose, due to his nationalistic pride, claimed that he did so on the Kamose stele (Ryholt 1997: 172-175).

• Eighteenth dynasty: Ahmose I (capital: Thebes) gradually expels the Hyksos from Avaris, re-unites Upper and Lower Egypt, campaigns in southern Palestine, restores Egyptian control at Buhen and devotes himself to a massive building programme in Memphis, Karnak, Heliopolis, Abydos, Avaris and Buhen (the Kushites had captured the fortress at Buhen but Ahmose I recaptured it in the early Eighteenth dynasty). A Hyksos minority might have remained in Avaris in the early Eighteenth dynasty (Bietak 2011b). Amenhotep I develops ambitious architectural projects and campaigns successfully in Nubia for the purpose of obtaining material rewards, improving the overall economy in Egypt (Bryan 2003: 214-216). The developing administrative organisation is drawn from the palace and the elite during this time (Bryan 2003: 214). Moreover, royal women play an active role in administration, e.g. Ahhotep, Ahmose-Nefertari, Setanum, and later, Hatshepsut (Bryan 2003: 216-220, 228-235). Thutmose I builds more monuments, campaigns in Syria and Nubia and opens new trade routes (Bryan 2003: 220-225). After the brief reign...

• The Palestinians trade with Egypt, Cyprus, Crete, the Aegean and various Near Eastern sites (Middle Bronze Age I period). Key-players in international trade: Jericho, Megiddo, Hazor, the sites of modern-day Tell ed-Duweir, Tell el-Ajjul, Tell el-Far'ah, Tell Beit-Mirsim, Gezer, Nahariyah, etc. (Middle Bronze Age II) (Kenyon 1973: 77-116; Weinstein 1975; Kenyon 1973: 526-556).

• Cyprus: Middle Bronze Age: dominant in the Eastern Mediterranean. Trade with Crete and the Aegean Islands, the Greek mainland (e.g. see Cypriot imports to the Aegean in Cline 1994), Syria-Palestine, Egypt and western Asia.

• Private traders may have operated between the 18th and 16th century, at least to some extent (problematic – see discussion in chapter Two).

of Thutmose II, Hatshepsut acts as regent for Thutmose III (Bryan 2003: 226-229; Dorman 2006: 39-68). She builds and restores temples across Egypt and Nubia and, motivated by an interest in exotic luxury goods, she conducts the trade mission to Punt and strengthens contact with foreign lands (Bryan 2003: 229-234; Hikade 2001). Thutmose III governs alone sometime in the twentieth or twenty first year of Hatshepsut’s reign. Soon after his sole rule has begun, his foreign policy includes a number of campaigns, which allow him to create an empire that stretches from southern Syria through to Nubia. With his victory at Megiddo, he gains control of northern Canaan, and the Syrian princes are forced to send tribute to Egypt. A number of campaigns follow, in which Thutmose III tours Syria and Canaan with his powerful army in order to collect tribute. He later takes Phoenician ports and pillages Kadesh. After having taken control of Syria, he attacks the Mitanni. Then, he returns to Syria for minor campaigns; and very late in his life he attacks Nubia penetrating as far as the Fourth Cataract (Redford 2003: 156-157, 197, 213-226, 229, Gabriel 2009: 81-198; Bryan 2003: 235-241; Cline & O’Connor 2006: passim). Amenhotep II inherits a vast kingdom from his father, which, he maintains by means of military campaigns in Syria and the Levant; he also commissions a number of building projects (Grimal 1992: 218-220; Bryan 2003: 241-246; Bryan 2003: 242-244; Laskowsky 2006: passim; Roehrig 2006: passim). Thutmose IV also constructs monuments but he is better known for his diplomatic relationship with the Mitanni (he receives a Mitannian bride for diplomatic reasons: Amarna letter EA 29; Bryan 2003: 247-252). Lastly, Amenhotep III leads Egypt into an era of artistic splendour and instigates the peak of international power and diplomacy (Bryan 2003: 253-261. For the artistic production during the reign of Thutmose III see Kozloff 2006: passim; Cline 1994: 112-113 [A.24]; Cline and Stannish 2011 - List of Kom el-Hetan).

17th to 15th century BC: Crete

• Neopalatial Period: In Crete, the Hyksos period of Egyptian chronology equals approximately the early to mid Neopalatial period (tables 7, 8, and 25, 9, 10, 14-18, 19, 20) (Phillips 2008: vol. 1: chronological chart: 23). The palace of Knossos is the major palace; there are also ‘palatial compounds’ at Phaistos, Malia, Zakros and Galatas, and a palatial building in Petras (Hallager 2010: 151). A number of manor houses (the 'minor palaces' or 'villas'), which are designed to accommodate high officials and local rulers, mark the beginning of the LM period; these elite households participate actively in production, trade and exchange, administration and culture (Rehak and Younger 2001: 394-402; Treufl et al 1996: 307-312, 324-325). Authority appears less 'decentralised' during this period, compared to Middle Minoan Crete (Dabney and Wright...
In early Neopalatial Crete, urbanism flourishes, the new 'palaces' become larger in size, accommodate more space for storage; and their hinterlands suggest political expansion. The contribution of urbanism to internal and external exchanges is evident (Younger and Rehak 2008: 141-149). However, Crete appears administratively fragmented and the ruler/s the palace of Knossos may not have been the sole ruler/s on the island. Despite Knossos being in charge of central regions, elsewhere, largely independent, elite-controlled settlements are acknowledged (e.g. 'autonomous' Malia and LM I Haghia Triadha) (Younger and Rehak 2008: 150-151; Driessen and MacDonald 1997; Macdonald 2002; Driessen et al. 2002; Driessen: in press; Nakassis et al. 2010: 246; Rehak 2008: 150-152). It is, therefore, not at all certain if Knossos is the island's supra-regional palace; its cultural supremacy may however reflect an economic and political control (Younger and Rehak 2008: 152). Palaces and elite households are the drivers of Minoan economy. They perform, on a wide scale, a variety of services, such as cultural rituals, collection of taxes, production and storage of goods, accounting, trade and export of commodities (Rehak and Younger 2001: 398). Neopalatial period administration is quite extensive; Intense centralised economy. The tools of the early Neopalatial administrative system are the Linear A tablets and seals (Younger and Rehak 2008: 176-177; Tomas 2010 (Linear A tablets); Weingarten 2010 (seals and sealings); Shelmerdine 2008: 11-14).

- **Thera eruption**: The aftermath of the Thera eruption in LM IA Crete must have been astonishing (see chapter One). Still, the island overcomes difficulties and recovers in LM IB, a period in which Cretans strengthen cultural interactions with foreign lands, particularly Cyprus, Egypt and the Levant (see, e.g. the Aegean processional scenes in Thebes (chapter Six). The end of LM IB marks the completion of the prosperous Neopalatial period in a climate of severe destruction in palaces, the causes of which are still open to question (Hallager 2010: 153).

- **'Hypothetical' Mycenaean takeover**: The Mycenaean takeover of Crete may have occurred sometime in the Late Minoan period. Severe destruction by fire in the palaces, towns and villas at the end of LM IB has strengthened the theory that the Mycenaeans were already present on the island. However, in effect, a Mycenaean invasion, internal unrest, natural phenomena, or any combination of the above three may have caused these events (Hallager 2010: 153).

- **The problematic Monopalatial Period**: For some researchers, the Mycenaean period in Crete starts immediately after LM I, with the LM II Mycenaean political dominance of the island. Others argue that, between LM II - early LM
16th to 12th century BC

- The phase between 1600/1500 and 1200 BC is a period of stability and progress, especially in the exploitation and technology of metal (Chernykh 1992: 306). Progress and expansion occur in Eastern, North and Central Europe. At this time, a shift of trade takes place from the Danube and the Black Sea towards the western Mediterranean and Italy (Kristiansen 1991: 30). Nonetheless, towards the end of this phase, the Eastern Mediterranean palaces are constantly at odds with the private trade sector (Sherratt A. and S. 1991: 373).

- The Hurrian culture of Mitanni unites the whole of Northern Mesopotamia, from what is today south-eastern Turkey to northern Syria and northern Iraq (early 15th century BC) (Kupper 1973: 28-36, 38, 176-227). The Hurrians move eastwards to cross the IIIA2, the Mycenaean presence on Crete is uncertain, and that the Mycenaean period on Crete starts after the LM IIIA2 destruction of the palace of Knossos. These researchers have introduced the term ‘Intermediate period’ (tables 10, 19) (Hallager 2010: 153 and chapter One). LM II-early LM IIIA2 represents the so-called Intermediate or Monopalatial period (Hallager 2010: 150. For LM II to LM IIIA1 early see also Preston 2008: 310-315). Nonetheless, the term ‘Monopalatial’ is problematic, since this period is archaeologically documented all over the island; and not only at Knossos. Second, even though contact with the Greek Mainland is archaeologically verified (as seen from warrior tombs, weaponry, etc.), the Mycenaean administration on the island at that time is debatable (Hallager 2010: 154; Preston 2008). Linear A is still used in administration during LM II and LM IIIA1; yet, Linear A tablets dating to this period are limited (Dimopoulou et al 1993; Tomas 2010: 342, 347-250). However, the date of the earliest Linear B tablets on Crete, a script which is strongly associated with Mycenaean culture, remains problematic - the earliest date suggested is LM II or LM IIIA1 period- Linear B tablets from the Room of the Chariot Tablets and the Room of the Fallen Column Vases (Driessen 1999) contra LM II /IIIB / LH IIIA-B (Shelmerdine 2008: 11-12). Sealings and architecture do not provide significant amounts of evidence about the Cretan administration in LM II (Rehak and Younger 2001: 441-442; Weingarten 2010: 322-325; sealings; Popham 1984: ‘Unexplored mansion at Knossos’). Hallager states that the earliest Mycenaean seal in Crete has come from an LM IIIA1 context (Hallager 2010: 154). LM IIIA1 period pottery indicates that Knossos was in political control of the island during this era; and possibly the only existing palace in Crete (Hallager 2010: 154; Hallager, B. 2010: 410-413: Late Minoan pottery). The end of the period is marked with the destruction of the palace at Knossos (an invasion -?-) (Hallager 2010: 154-155). Certainly, the Intermediate period generates more questions than answers.

- Final Palatial Period: In the Final Palatial period (tables 10, 14-16, 19, 20), administratively speaking, both scripts and seals indicate that a Mycenaean elite (a Mycenaean wanax?) was in economic and possibly political control on Crete; nevertheless, the island still maintained some of its indigenous character (Hallager 2010: 155-157, Preston 2008: 316-325; Weingarten 2010: 325; seals; Palaima 2010: scripts). Linear B is inscribed on stirrup jars that date from LM IIIB onwards: see Hallager 2010: 155). The Intermediate period is sometimes incorporated into the Final palatial period (for example, at Rehak and Younger 2001). The Mycenaean presence on Crete is confirmed by the archaeological evidence, e.g. tombs and cemeteries with Mycenaean character, domestic architecture of one-storey buildings made of stone, lustral basins, etc (Hallager and Hallager 2003; Hallager 2010: 155; Preston 2008: 316-318).
Tigris and the Hurrian Kingdom of Mitanni is centred on the steppes of northern Mesopotamia. Between c 1550 and 1400 BC many Syrian cities are still under Hurrian control (See Gurney 1973: 228-255; Drower 425-430, 500-513). The Syrian city of Ugarit acts like a trade funnel, maintaining contact with both Egypt and the Aegean. Being in close contact with Egypt, it is also home to foreigners who trade there (Schniedewind and Hunt 2007).

- During the reign of Thutmose III (1579-1425 BC, dates after Shaw 2000), Egypt becomes one of the most powerful states in the world (Bryan 2003: 207-241).
- Overall, climax of the Aegean palatial trading system; great prosperity in the Aegean, with trade routes from Crete to Rhodes and from Rhodes to the Greek Mainland. Related diplomatic activity to accompany trade (Sherratt A. and S. 1991: 370; 372-73). Due to a series of natural disasters (c 1450 - 1380 BC – problematic / see ‘Monopatial’ period), the Minoan palaces turn into ruins (probably gradually). From then on, the centre of political and trade activity in the Aegean area is no longer in Crete but on Mainland Greece (Voutsaki 2010; Selton 2010; Frank 1993: 397; Gills and Frank 1992: 637).

- Cilicia and Crete have lost power over the trade networks in the Mediterranean, and Cyprus is one of the major international traders. Under all these circumstances which affect the social / networking domain of the world system, Mycenaean trade, gradually but effectively, supplants the Minoans in the Eastern Mediterranean (Driessen and MacDonald 1997: 106-115; Rehak and Younger 2001: 392-458; Hallager 2010; Frank 1993: 397; Gills and Frank 1992: 637). Indeed, with Cyprus being a major copper supplier in the Near East and the Greek Mainland having turned into the core of the Aegean economy (also maintaining contact with Egypt), Crete remains peripheral to this flourishing economic focus (Sherratt A. and S. 1991: 370; Dickinson 1994: 255-256). Nevertheless, after the destruction of the main palatial centres; and even though the island is fragmented into a series of small polities; certain regions, such as the Cretan authority in the sea / trade routes; Cretan colonies and...
Kommos, continue to flourish independently, playing the role of intermediary between west and east, having developed contacts with the Greek Mainland, the Aegean Islands, Cyprus, Italy, Egypt and the Levant (Sherratt A and S 1991: 372; Rehak and Younger 2001: 428, 431).

- The phase between 1400 and 1200 BC differs from the 15th century patterns in the disappearance of Crete and Cilicia as major centres in their own right, while Cyprus carries on playing an important role as a major international agent (Sherratt A. and S. 1991: 372-733). Bulk maritime trade reaches its climax with respect to the Bronze Age. Cyprus, which specialised in the production of finished bronze goods, such as mirrors, tripod stands, copper, etc., continues contact with Mycenaean Greece, Egypt, Ugarit and the Levant. Moreover, the port of Rhodes, under Mycenaean influence, participates in international trade and receives material from the East and West (Greek Mainland, west coasts of Anatolia, Black Sea region and Italy) (Sherratt A. and S. 1991: 372). A major long-distance maritime trade route is marked by port towns and emporia such as Tel abu Hawan, Ugarit, Enkomi, Ialysos, Kommos, and stations like Mersha Matruh (Sherratt A. and S. 1991: 372-733; Frank 1991: 397). Towards the end of this phase instability is caused by piracy (Sherratt A. and S. 1991: 373). Trade is conducted under a climate of insecurity, as seen, for example, in the Amarna Letters, and the battle at Kadesh between the Hittites and the Egyptians, in 1284 BC (Van Dijk 2000: 288-294). The Sea Peoples become a particular threat to the palatial centres (c 1200-1150 BC) (Oren 2000).

- During the late Second Millennium more and more products cross the seas, and the wealth and variety of trade can be seen in the Uluburun wreck (Sherratt A and S 1991: 372; see also the 'shipwreck of Cape Gelydonya': Bass 1967, 1986, 1989, 2010; Lipcsei L, Murray A, Smith R, and Savas M, 2001; Wachsmann and Bass 1999: 303-307; Pulak 2010; for orientalia found in these wrecks: Cline 1994).

- The two centuries from 1200 to 1000 BC are the period of the passage from Bronze Age to Iron Age.

- The destruction of Phylakopi II and Haghia Irini (end of Period V) was due to the dominance of the Minoan palaces over these islands (MacGillivray 1984: 157).

- Thera eruption: The Thera eruption is chronologically seen in the closing of LCI (Barber, L.N. 2010B: 163). 'Minoan thalassocracy' declines at the end of LM IB. Major Late Cycladic II sites are Phylakopi and Haghia Irini, which receive a higher proportion of Mycenaean imports compared to the previous chronological period. Akrotiri no longer exists. Imported LM II / LH IIB is rare in the Cyclades (Barber, L.N. 2010b: 164). Kythera is prosperous in the early Mycenaean period and interacts regularly with the Greek Mainland (Cavanagh 2010: 638; Broodbank et al. 2005). Trianta on Rhodes is Mycenaenised in LH IIB (Markou 2010b: 783, 785-788).
Table 29: Egypt: contact and conflict (with different opinions expressed by researchers)

<table>
<thead>
<tr>
<th>Reign</th>
<th>Economy, trade and treaties</th>
<th>Warfare</th>
</tr>
</thead>
<tbody>
<tr>
<td>Amenemhat II (12th dynasty)</td>
<td>Treaties between Egypt and various individual Levantine cities. Commerce with Egyptianised Byblos. Contact and trade with Ugarit, Cyprus and Crete. Tunip in Northern Syria is a trading partner of Egypt (Callender 2003: 151-152).</td>
<td>Warfare against the Aamu (Asiatic groups). Expedition to Kush (Callender 2003: 151-152).</td>
</tr>
<tr>
<td>1911–1877 BC</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1877-1870 BC</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1870-1831 BC</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Amenemhat III (12th dynasty)</td>
<td>Exploration of quarries in Nubia. Contact and trade with Byblos, Ugarit, Cyprus and Crete. By the end of this dynasty the whole of Lebanon and Palestine are influenced by Egyptian culture (Callender 2003: 156-158).</td>
<td>Peaceful reign (Callender 2003: 156-158).</td>
</tr>
<tr>
<td>1831-1786 BC</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Amenemhat IV and Sobekneferu</td>
<td>Trade with the Levant. Contact and trade with Byblos, Ugarit, Cyprus and Crete (Callender 2003: 158-159). End of 12th dynasty to onset of 13th dynasty: Close relations and trade with Syria-Palestine and especially Byblos (Bietak 1982: 43). A colony of Asiatics from Byblos is established at Tell el-Dab'a, maintaining relations with what is today northern Palestine, and particularly Lebanon and northern Syria (Bietak 2010: 159). The Aamu are slowly unfiltered in Egyptian society at Itjtawy and elsewhere, even though they maintain their foreign identity (Bietak 2010: 146-147). Local archaeology presents a mixture of Egyptian and Palestinian traits. E.g. archaeological material from Avaris suggests connections with Cyprus and Northern Palestine, as seen from the archaeological finds at Tell el-Dab'a. Special contacts with Hazor and Megiddo. Exploitation of Nubian natural resources. Links with Punt. Contact with Syria-Palestine, the Near</td>
<td>Some expeditions to Sinai to control the mines. End of 12th dynasty to onset of 13th dynasty: the atmosphere of stability is replaced with general disturbance and movement of populations. (Callender 2003: 158-159).</td>
</tr>
</tbody>
</table>
| Thirteenth dynasty – Residence: Memphis region | Regionalism and loss of political and cultural unity in Egypt. Onset of the 13th dynasty: Syro-Palestinian traits mixed with Egyptian culture are seen over a wider area of the Delta from west to east, including Tell Fuziya, Tell Geziret el-Faras, Farasha, Tell el-Yahudiya, Tell el-Maskhuta and Tell el-Habua. However, Bourriau (2003: 184) states that these archaeological traits are irregular geographically: In Memphis, Palestinian Middle Bronze Age traits are limited compared to Tell el-Dab’a, from the mid thirteenth dynasty until the end of the Second Intermediate Period. At the same time, Saqqara demonstrates an extremely limited and problematic presence of Asiatics (Bourriau 2003: 184). In Lisht, although Egyptian burials with 'un-Egyptian' pottery (Tell el-Yahudiyah pottery) have been unearthed, there is no evidence that the locals were not Egyptians (Bourriau 2003: 185). At Gurob, burials are Egyptian in character, with some foreign finds (Kerma-ware pottery, etc.) whereas at Maiyana there is evidence for a foreign community unrelated to Avaris (yet, archaeological finds from local burials include some Tell el-Yahudiyah ware and some Cypriot pottery) (Bourriau 2003: 187).

Serious decrease in wealth due to the Asiatics' controlling the Delta. Some of the Egyptian forts in Nubia are still in operation whereas others are abandoned. The domain of this dynasty includes areas such as Saqqara, Lisht, Heliopolis and Bubastis. The oases are administered by the rulers of the Thirteenth dynasty. Expeditions are sent as far as the Red Sea. Quarries are under control of Sobekhotep IV. The treasurer is responsible for foreign affairs and trade. Close relations between the Thirteenth and Fourteenth dynasties (particularly from about the middle of these chronological periods onwards) (Ryholt 1997: 71-93).

The Thirteenth dynasty has contact and trade with Tell el-Ajjull, Lachish, Jericho, Megiddo and a very close relationship with |
| Some conflict between the Thirteenth and Fourteenth dynasty. Peaceful treaty about 25 years after the first Fourteenth dynasty ruler was in power (Ryholt 1997: 71-93).

Note: relations between Khyan and Sobekhotep IV
Khyan is seen as contemporary to the 13th dynasty by Moeller and Marouard 2011. Contact between Upper and Lower Egypt while Khyan was in power is maintained (Moeller and Marouard 2011). |
Egyptianised Byblos (the Bybliot governors saw Byblos as an Egyptian domain even though it was autonomous). Egyptian officials in the Levant and Nubia (Ryholt 1997: 71-93).

Note however that as far as Avaris is concerned, Bietak (1996: 52) sees no trade with Lebanon at the onset of the Thirteenth dynasty. He states that trade with Byblos ceased due to disturbance (decline of Byblos, Mari and Qatna). At the same time, due to this disturbance, Middle Egypt maintains some connections with certain regions in the Levant but no connections with Byblos. Connections with Cyprus and Southern Palestine become more intense. Moreover, Middle Egypt maintains contact with the Delta, Upper Egypt and Kerma in Nubia.

According to Ryholt, (1997: 71-93) no relations are seen between Thirteenth dynasty and Cyprus, nor any links with Crete.

Contact with the (still) operating forts in Nubia (Ryholt 1997: 71-93). Contact between Buhen (in Nubia) and Lower Egypt continues 'unbroken' from the Thirteenth to the beginning of the Hyksos Fifteenth dynasty (Bourriau 2003: 189, 195). Although they maintain relations with Lower Egypt, the Nubian fortresses serve the king of Kush and even carry out local campaigns on his behalf (Bourriau 2003: 195). After the mid Fifteenth dynasty, Buhen imports more pottery from the Theban area than pottery from Lower Egypt (Bourriau 2003: 195). Kamose retakes Buhen during his reign (Bourriau 2003: 197).

Bietak notices (2010: 152) that just before the Hyksos Period Levantine imports in the south of Egypt drop by almost a half. Avaris imports Levantine goods and consumes them without forwarding them to the rest of Egypt.

<table>
<thead>
<tr>
<th>Fourteenth dynasty</th>
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</tr>
</thead>
<tbody>
<tr>
<td>Residence: Avaris</td>
<td>Fourteenth dynasty seals show that trade is controlled by the palaces but private enterprise also operates. Absence of monuments. Recession (Ryholt 1997: 94-117).</td>
<td>Strong relations with Canaan and the domain of the Thirteenth</td>
<td>Some conflict between the Thirteenth and Fourteenth dynasty (Ryholt 1997: 94-117).</td>
</tr>
</tbody>
</table>
dynasty (Saqqara, Lisht, Gurob, Abydos, Thebes, Elephantine, etc.), with which relations are cemented with special agreements. Tell el-Ajjul plays an important role between the Fourteenth Egyptian dynasty and Canaan. Active trade and cultural contact with Nubia and particularly with Kerma (dynastic marriage between King Sheshi and Tati, a Kushite Princess – Kushite alliance). Ryholt (1997: 112) suggests that the Fourteenth dynasty trades the so-called 'Tell el-Yahudiya ware'. Some contact with Cyprus and almost no contact with Crete (Ryholt 1997: 94-117).

| Fifteenth dynasty – Residence: Avaris |
| Tell el-Yahudiya ware is exported to Cyprus (Bietak 2010: 152) but its numbers drop in southern Egypt and Nubia. Trade with Southern Egypt (the Theban dynasties) is frequently disrupted due to warfare between Asiatists and Thebans, but when not in warfare, relations are peaceful and cemented by treaties (Ryholt 1997: 118-145). Active trade and close relations with Canaan. The contact of the Fifteenth dynasty with Nubia is limited compared to the Fourteenth dynasty, probably because the Asiatists are at war with the Thebans. Yet, contact with Nubia, and possibly a Hyksos-Nubian alliance, became more intense when the Hyksos ruled the whole of Egypt – if this ever happened (Ryholt 1997 contra Forster-Müller 2010). Trade between the Hyksos and the Kushites is extensive at times during this period. In Avaris, relations with Cyprus are intensified already from the earlier Hyksos Period (Forstner-Müller 2010: 129). Directions between the Hyksos and Cyprus are direct, whereas connections between the Cypriots and the Nubians are probably via the Hyksos. Most likely, a Hyksos alliance with Cyprus could explain the direct relations and exchange with the island (Weinstein 1992: 345). Connections between Avaris and Cyprus become even closer at the end of the Hyksos Period (Callender 2003: 159-161). In Avaris, trade concentrates with Cyprus during the final decades of the Hyksos Period, while imports from Syria-Palestine are non-existent (Forstner-Müller 2010: 129). There is some contact with the Aegean, since Tell el-Yahudiya ware has been unearthed there. Minoan-Cretan relations are close assuming that the Minoan


Note: relations between Khyan and Sobekhotep IV
Khyan is seen as contemporary to the 13th dynasty by Moeller and Marouard 2011. Contact between Upper and Lower Egypt while Khyan was in power is maintained (Moeller and Marouard 2011)
frescoes from Tell el-Dab'a date to the Hyksos Period (Ryholt 1997: 118-145).

It is also suggested that the Nubian Kushites are allies of the Hyksos during the Hyksos Period (Bourriau 2003: 183, 188-190). Moreover, they are allies with independent states in Syria-Palestine who acknowledge the sovereign of the Hyksos king in Egypt. Kerma people in Avaris are traced from the middle Hyksos Period onwards (Bietak 2006: 76-77; 2010: 156).

Apart from the Hyksos-Theban warfare (particularly in the late Hyksos Period), it is likely that a dynastic marriage occurs between the Hyksos ruler Apophis and Tany, a Theban princess (Van Setters 1966: 168), possibly to cement a peaceful treaty.

| Sixteenth Dynasty – Residence: Thebes | While the Hyksos are in control of Lower Egypt, the Theban rulers maintain a fragile independence in Upper Egypt. Cushae is the border between the Hyksos and the Thebans. Thebes has no contact with Lower Egypt and contact with Memphis is very limited (Bourriau 2003: 193).
| Abydos dynasty Residence: Abydos (Rhyholt's dynasty classification) | Limited relations with the Fifteenth dynasty. Peace with the Sixteenth dynasty (Ryholt 1997: 163-166). | Abydos (after the 20 years of rule by the Abydos dynasty) is later conquered by the Hyksos Fifteenth dynasty (during the Sixteenth dynasty) (Ryholt 1997: 163-166). |
| Seventeenth dynasty – Residence: Thebes | Restoration of monuments. As in the Sixteenth dynasty, Thebes has no contact with Lower Egypt and contact with Memphis is very limited (Bourriau 2003: 193). However, a sporadic peaceful treaty between the Fifteenth and Seventeenth dynasty before the reigns of Seqenenre and Kamose is likely (Ryholt 1997: 167-183, 309-310). | Military conflict of Seqenenra Taa against the Hyksos. Kamose (the last ruler of the 17th Theban dynasty) leads expeditions against Buhen and Avaris but may not have conquered Avaris (see Bourriau 2003: 199-200; Ryholt 1997: 173-174 for the issue). The Theban 17th dynasty aims to retake the forts in Nubia before the latter campaigned against the Hyksos (Bourriau 2003: 196). For that reason Kamose campaigns against Kush in Nubia and goes as far as Buhen (Ryholt 1997: 167-183, 309-310). |
Before Seqenenra Taa, relations of the Theban 17th dynasty and the Hyksos are generally peaceful. The indigenous Egyptian rulers in Thebes control the area as south as Elephantine and rule Middle Egypt as far as Cushae. The wealth of Thebes is coming from Elephantine, the forts of the second Nile cataract and Kerma (Bourriau 2003: 194). The Thebans have to pay tax to the Hyksos rulers at the border of Cusae and to the king of Kush in order to get access to the Nubian forts. Many forts, such as Buhen, Mirgissa and Askut, are occupied by both Egyptians and Nubians until the end of the Second Intermediate Period. Trade flourishes between Thebes and Kerma during the Late Second Intermediate Period (Bourriau 2003: 197).

Some Nubians (the so-called 'Pan-Grave' culture - Metjay) are allies of the Theban Seventeenth Dynasty against the Hyksos Fifteenth dynasty and Nubian mercenaries are involved in Kamose's expeditions. Kerma is also on good terms with Kamose (Ryholt 1997: 167-183, 309-310). Nubians are in contact with both Memphis and Upper Egypt. Deir Rifa is in contact with the Memphis region while the nearby citadel and cemetery of Mostagedda (on the opposite side of the Nile) are associated with Upper Egypt (Bourriau 2003: 190). At the end of the Second Intermediate Period the Thebans control the gold Mines in Nubia. In the late Second Intermediate Period the Kerma People are allies of the Egyptians (for instance, Nubians worked as mercenaries for both Kamose and Ahmose) but in the early Eighteenth dynasty, Kerma becomes the enemy of Egypt (Bourriau 2003: 197). Connections with Crete and Cyprus are indirect at the time.

<table>
<thead>
<tr>
<th>Period</th>
<th>Events and Achievements</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ahmose I (18th</td>
<td>Building projects. Exploitation of Nubia and the conquered regions in Syria-Palestine.</td>
</tr>
<tr>
<td>1550-1525 BC</td>
<td>Control of the mines in Nubia and Sinai. Contact and traffic with central Asia, Byblos,</td>
</tr>
<tr>
<td></td>
<td>Expulsion of the Hyksos from the Delta. Ban of the traffic between Canaan and Avaris.</td>
</tr>
<tr>
<td></td>
<td>Sharuhen (near Gaza) under Egyptian rule. Warfare with Syria and Nubia and regain of</td>
</tr>
<tr>
<td>Amenhotep I (18th</td>
<td>Same as in the reign of Ahmose I (Bryan 2003: 212-216).</td>
</tr>
<tr>
<td>18th dynasty)</td>
<td>Campaigns against Nubia, Kush and the Iamu. Possible campaign in Syria-Palestine</td>
</tr>
<tr>
<td></td>
<td>(problematic). Control of the western desert and oases (also (Bryan 2003: 212).</td>
</tr>
<tr>
<td>Time Period</td>
<td>Ruler</td>
</tr>
<tr>
<td>----------------------</td>
<td>----------------</td>
</tr>
<tr>
<td>1492-1479 BC</td>
<td>Hatshepsut</td>
</tr>
<tr>
<td>1479-1425 BC</td>
<td>Thutmose III</td>
</tr>
<tr>
<td>1400-1390 BC</td>
<td>Thutmose IV</td>
</tr>
</tbody>
</table>
**Table 30: Egypt: An overview of polity and administration over time (with different opinions expressed by researchers)**

<table>
<thead>
<tr>
<th>Reign (after Shaw 2003)</th>
<th>Polity</th>
<th>Other points in administration</th>
</tr>
</thead>
</table>
| | | Thirteenth dynasty – Residence: Memphis region | Limited written records about administration in Upper Egypt compared to Lower Egypt. Pharaonic rule. Late Twelfth dynasty bureaucracy and administration. Centralised government and control of the masses. Some building projects. Xois and Avaris ruled by local non-Egyptian rulers (Callender 2003: 159-161). | }
Crisis on the legitimisation of rulers. Egyptian officials in the Levant and Nubia. The border between the domain of the Thirteenth dynasty and that of the fourteenth dynasty is Athribis. The Thirteenth dynasty does not officially recognise the concurrent Fourteenth dynasty. Decrease in the number of monuments at the end of this dynasty (Ryholt 1997: 71-93, 296-299).

Memphis: Palestinian Middle Bronze Age traits are limited compared to Tell el-Dab'a (Bourria 2003: 184).

Saqqara: extremely limited and problematic presence of Asiatics (Bourria 2003: 184)

Lisht: Egyptian burials with un-Egyptian pottery (Tell el-Yahudiyah pottery). No evidence that the locals are not Egyptians (Bourria 2003: 185).

Gurob: Mainly Egyptian burials in character, with some foreign finds (Kerma-ware pottery, etc.) (Bourria 2003: 185).

Sobkhotep III (who introduced a series of rulers of non-royal descent) changed the patterns of administration. The new officials represented the king and the administrative system operated via seals (Ryholt 1997: 71-93, 296-299).

Note: relations between Khyan and Sobekhotep IV.
Khyan is seen as contemporary to the 13th dynasty by Moeller and Marouard 2011. Contact between Upper and Lower Egypt while Khyan was in power is maintained (Moeller and Marouard 2011)

Fourteenth dynasty – Residence: Avaris

The Fourteenth dynasty is contemporary to the Thirteenth dynasty. Fourteenth dynasty officials are seen in the Thirteenth dynasty domain, in Nubia and in Canaan (Ryholt 1997: 94-117, 299-301).

Nehesy is associated with the Fourteenth dynasty of Asiatics in the Nile Delta. Nehesy, who must have originally served a king in Ijtawy, assumes a royal status in Xois and Avaris (Bourria 2003: 177-178).


NB: Ryholt (2010) dates two more rulers to the Fourteenth dynasty: Sheshi and Yaqubbar. According to Ryholt (2010: 120-121) this dating suggests that the Fourteenth dynasty had arisen much earlier than traditionally assumed.

For details on administration see (table 31).
Limited written records about administration in Upper Egypt compared to Lower Egypt.
Administration and politics generally follow Egyptian models (Bourria 2003: 177-178).
| Fifteenth dynasty – Residence: Avaris | From the Early Hyksos Period onwards, Syro-Palestinian material culture is evident in Avaris, mixed with Egyptian and Near Eastern traits (see e.g. Forstner-Müller 2010: 131 who discusses tombs). However, Avaris was originally settled by the Egyptian crown (Forstner-Müller 2010: 359). There is no unity of the Tell-el-Dab'a material culture with Southern Palestine. The domain of the Hyksos is likely to have included part of Canaan (problematic). Yet, there is no indication of the spread of the Hyksos empire in Palestine at the time (Forster-Müller 2010: 129), although a control over Southern Palestine is theoretically possible, with limitations (Bietak 2010b: 153).

The political system of the Hyksos is based on Palestinian models, even though the Hyksos administration is highly Egyptianised.

The fall of the Thirteenth dynasty creates a power vacuum in middle and southern Egypt, from which the Hyksos benefit. Violent transaction of power from the Fourteenth to the Fifteenth dynasty (Ryholt 1997: 118-145, 302-304, 308-309).

Memphis most likely plays an important role in the very early Fifteenth dynasty (Ryholt 1997: 118-145, 302-304, 308-309).

Expansion of the Fifteenth dynasty to the South of Egypt. Ryholt even mentions (1997: 140, contra Forstner-Müller 2010: 123-125; Bietak 2010b: 151) that for a few years the Hyksos ruled the whole of Egypt, including Thebes, just after the Sixteenth dynasty and before the rise of the Seventeenth dynasty. Apophis gains the throne through a coup d'état and legalises his rule via propaganda (Ryholt 1997: 118-145, 302-304, 308-309).

There is a system of tribute and taxation, and the lands of the Hyksos within the borders of Egypt and in the Levant must have paid tribute to Kamose in Avaris (Redford 1993: 120).

For details on administration see (table 32).

New pattern of administration (mixing Egyptian and Canaanite elements), in which scarab seals continue to be used but the administrative system focuses on the king only, significantly eliminating the role of other rulers. The Hyksos do not control the administration of Canaan or achieve supremacy over Palestine (Forstner-Müller 2010: 135; Bietak 2010b: 151). Traditional royal Egyptian titulary (Ryholt 1997: 118-145, 302-304, 308-309).

The vizier does not appear in the north of Egypt. The many vassals of the Hyksos are responsible for the local administration and politics and are spread as far as south and coastal Palestine. Kabri must have been under Hyksos administration, at least to a certain extent. Some Hyksos vassals are probably situated in Middle Egypt and even Thebes (Bietak 2001: 191). Tell el-Dab'a is a central administrative centre.

Note: relations between Khyan and Sobekhotep IV
Khyan is contemporary to the 13th dynasty according to Moeller and Marouard 2011. Contact between Upper and Lower Egypt while Khyan was in power is maintained (Moeller and Marouard 2011).

| Sixteenth Dynasty – Residence: Thebes | Thebes acts as the political and cultural head of the South. The domain covers the area from Hu in the North to Edfu in the South. Theban rulers (about 15 rulers are recorded), cult, culture and

For details on administration see (table 32).

Egyptian royal titularly. The transition from the Thirteenth to the |
<table>
<thead>
<tr>
<th>Abydos dynasty</th>
<th>A short-lived dynasty, concurrent to the Sixteenth Dynasty in Thebes, which lasts approximately 20 years according to Ryholt (1997: 163). The capital of this dynasty is Abydos or Thinis. Abydos is later conquered by the Hyksos Fifteenth dynasty (during the Sixteenth dynasty) (Ryholt 1997: 163-166, 304).</th>
</tr>
</thead>
<tbody>
<tr>
<td>Residence: Abydos</td>
<td>Obscure administration (Ryholt 1997: 163-166, 304)</td>
</tr>
<tr>
<td>(Ryholt's dynasty</td>
<td>For details on administration see (table 32).</td>
</tr>
<tr>
<td>classification)</td>
<td>The Second Intermediate Period administration in Thebes follows models of the Late Middle Kingdom. (Bourriau 2003: 177-178).</td>
</tr>
<tr>
<td>Seventeenth dynasty</td>
<td>In the beginning of this chronological period and until the reign of Kamose, Abydos is the northern stronghold of this dynasty, based in Thebes. During the reign of Kamose, the Thebans control the area between Elephantine in the North and Cusae in the South. Expansion to the North towards Avaris. Programs of restoration are undertaken at Koptos, Abydos and elsewhere (Ryholt 1997: 167-183, 309-310).</td>
</tr>
<tr>
<td>– Residence: Thebes</td>
<td></td>
</tr>
<tr>
<td>Ahmose I (18th</td>
<td>Expansionary policy: Unification of Egypt, but the 'new' Egyptian society and polity in the New Kingdom is remarkably different to that of the Middle Kingdom. Restoration of Theban rule and control over Nubia and Canaan. Control over the Nubian and Sinai mines and re-establishment of old trade routes. Possible short co-regency with Amenhotep I at the end of his rule (Bourriau 2003: 203-206; Bryan 2003: 207-212).</td>
</tr>
<tr>
<td>Amenhotep I (18th</td>
<td>The objective is the maintenance of control of the regions conquered by Ahmose I. Expansionary policy: campaigns and warfare (Bryan 2003: 212-216).</td>
</tr>
<tr>
<td>dynasty) 1504-1492 BC</td>
<td>Pharaonic rule. Building projects. The Egyptian administrative system expands over the conquered regions in Nubia and elsewhere, through a network of officials, such as the viceroy of Kush and the viceroy of el-Kab (Bryan 2003: 220-226).</td>
</tr>
<tr>
<td></td>
<td>Egypt controls Lower Nubia and the Levant. Perunefer as port of control for the Levant. Mid 15th century BC.</td>
</tr>
<tr>
<td>Pharaoh/Name</td>
<td>Dynasty</td>
</tr>
<tr>
<td>----------------------------------</td>
<td>---------------</td>
</tr>
<tr>
<td>Thutmose II</td>
<td>18th dynasty</td>
</tr>
<tr>
<td>Hatshepsut (Thutmose III)</td>
<td>18th dynasty</td>
</tr>
<tr>
<td>Amenhotep II</td>
<td>18th dynasty</td>
</tr>
</tbody>
</table>
**Table 31: Polity and administration in Egypt during the Middle Kingdom (after Callender 2003: 161-165 and Quirke 2007)**

<table>
<thead>
<tr>
<th>Overview of Late Middle Kingdom administration in Egypt (after Grajetzki 2000, only the most important titles are presented)</th>
<th>Top: ruler, followed by the Vizier.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Administration of commodities: overseer of 'what is sealed' (treasurer), overseer of sealers.</td>
</tr>
<tr>
<td></td>
<td>Administration of labour: Overseer of troops, great estate overseer, overseer of fields, overseer of the enclosure, overseer of marshland men.</td>
</tr>
<tr>
<td></td>
<td>Palace administration: director of the broad court and secretary of documents to the king.</td>
</tr>
<tr>
<td></td>
<td>System of seals. Records are maintained by scribes.</td>
</tr>
<tr>
<td></td>
<td>The king is the top of the Egyptian social pyramid. The government is centralised and the objective is the absolute control of the masses. The palace is divided into residential and business areas and is staffed with several officials and servants. The palace also functions as an educational institution: selected children, Egyptian and non-Egyptian, are educated at the king's expense.</td>
</tr>
</tbody>
</table>

| Elitism | General growth of the bureaucrat system. Governmental officials hold a range of titles. The number of nobles' titles increases, particularly at the end of the Middle Kingdom. The vizier (possibly two at the time of Senusret I) is the chief minister under the king. The overseer of the Seal has wide duties and is a high-rank official. Mayors operate as the local governors. Nomarchs ('Great overlords') are semi-independent and the government attempts to take them completely under its control. They receive pompous titles and among their responsibilities is the direct allegiance to the ruler, the control of land and people, the collection of taxes, the protection of the borders of Egypt and to act as deputies for official receptions of foreigners. Eventually, at the time of Senusret III and Amenemhat III the office of the nomarchs declines. During the reign of Senusret III, two offices are created for the government of the north and south of the country, staffed with a hierarchy of officials. A new bureau of vizier is established, along with the bureaus of 'treasury', 'the organisation of labour', etc. Palace administration follows an explicit model. |

| Taxation (palaces) | The organised fiscal system is operated by a number of officials in the services of the palace. Taxes are paid in kind. Men and women of the Middle and Lower classes 'pay' physical tax, including services in the military; in Egypt and in the campaigns into Palestine and Nubia. |

| Temples | The temples do not pay taxes or pay limited taxes. Temples are self-supporting and receive taxes / income from the public. |

| Trade | Trade is monopolised by the king and his officials. |
### Table 32: Polity and administration in Egypt in the Second Intermediate Period. Hyksos and Thebans.

<table>
<thead>
<tr>
<th>Second Intermediate Period administration in Egypt: Hyksos and Thebans</th>
<th>Indigenous Egyptians (after c 1700 BC) at Itjtawy and Thebes</th>
<th>Hyksos (Avaris)</th>
</tr>
</thead>
<tbody>
<tr>
<td>General impression: fragmented administration with local variations. Political and cultural changes occurred in different speeds from place to place.</td>
<td>Administration of the Late Middle Kingdom continues almost unchanged.</td>
<td>Administration is almost invisible in the records and remains speculative (Quirke 2007: passim). Some imitation of the indigenous Egyptian administration (e.g. the use of the title 'treasurer'). Parallels for foreign political traits are also seen in southern Palestine and especially Byblos (not surprising if one accepts that they originated from Northern Levant: Bietak 2010b). The Hyksos are Egyptianised: Egyptianisation of their official titles. Cusae is an important Hyksos administrative centre; it is also the administrative border between the Hyksos and the Theban ruler (Bourriau 2003: 182). Van Setters (1966: 164) has suggested that the power and rule of the Hyksos expands beyond the borders of Egypt, since the Hyksos ruler at Avaris is in control of vassals in Syria-Palestine. However, according to Forster-Müller (2010: 135), there is no evidence that the Hyksos in Avaris have achieved political supremacy over Palestine or over the rest of Egypt through territorial occupation. Seth is the local god in Avaris, and seals and scarabs are used in administration: both Egyptian and Palestinian traits are seen there (Bourriau 2003: 177, 179).</td>
</tr>
<tr>
<td><strong>Indigenous Egyptians (after c 1700 BC) at Itjtawy and Thebes</strong></td>
<td>Administration of commodities: overseer of 'what is sealed' (treasurer) followed by the overseer of sealers.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Administration of labour: overseer of troops, great estate overseer, overseer of fields, overseer of the enclosure, overseer of marshland men.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Palace administration: director of the broad-court, no secretary of documents of the king mentioned in the sources.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Also: local administration, with officials bearing individual prenomina.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Military, 'unspecific' and religious titles.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>System of seals. Records are maintained by scribes. Wide use of term 'royal sealer' suggests decentralisation of power. From end of 12th dynasty on, separation of temple and state administration (Grajetzki 2010: 309, 310).</td>
<td></td>
</tr>
<tr>
<td><strong>Hyksos (Avaris)</strong></td>
<td>Administrative titles and roles (after Grajetzki 2000):</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Top: Ruler.</td>
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</tr>
<tr>
<td></td>
<td>No vizier. Ruler is followed by 'Son of the King'.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Administration of commodities: overseer of what is sealed (treasurer).</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Administration of labour: no titles.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Palace administration: no titles.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Local administration: local vassals (Egyptians or Asiatic)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>System of seals. Records are maintained by scribes.</td>
<td></td>
</tr>
<tr>
<td>18th dynasty -  before Hatshepsut and Thutmose III</td>
<td>The ruler is the head of the state. The vizier(s) is the ruler's highest official and the highest judicial official(s) of 18th dynasty Thebes. The palace collects, consumes and distributes goods. Elitism is evident: a wide range of governmental officials govern in areas of Egypt and its subordinate foreign lands. Strictly defined social classes. Palaces as collectors, consumers and distributors of goods. The central offices of the Egyptian administrative and bureaucratic system are based in Thebes. Complex system of maintenance of official records for all bureaus. A series of letters are exchanged between officials for bureaucratic reasons. The power of the temples grows steadily through the 18th dynasty (e.g. there is an absence of titles of high priests of Amun in Thutmose I and II but the High Priest is a high-rank official in the reign of Thutmose III). Evolution of the administrative system of the temples means that more officials are involved in the running of temples (e.g. Hem Priests). Politics and religion often merge (Bryan 2006: 70, 96).</td>
<td></td>
</tr>
<tr>
<td>Thutmose III — overview</td>
<td>The number of written records at the time suggests the affluence and burgeoning of bureaucrat system (Bryan 2006: 113-114). All state officials bear official titles and their mission is the maintenance of Maat ('justice').</td>
<td></td>
</tr>
<tr>
<td>Thutmose III — Kingship</td>
<td>Kingship was the centre of Egyptian bureaucracy. The king theoretically owns everything. Bureaucracy is evolved on the basis of the need of collecting and redistributing the produce of Egypt on behalf of the ruler (Bryan 2006: 69).</td>
<td></td>
</tr>
<tr>
<td>Thutmose III — Elitism and the Nobles</td>
<td>The nobles support the monarchy. These individuals bear titles and have their offices awarded to them because of their services to the ruler (e.g. in military campaigns). They have to be proximate to the king in order to maintain their position (Bryan 2006: 70).</td>
<td></td>
</tr>
<tr>
<td>Thutmose III — Multiple duties of officials</td>
<td>The ruler can send his officials to undertake special missions; for example the Royal Messenger Si-montu is appointed head of the Syro-Palestinian expedition by Thutmose III and is ordered to bring back large amounts of turquoise (Bryan 2006: 79). Occasionally officials wander between two or more titles (e.g. 'Overseer of the Seal and overseer of the Granary') (Bryan 2006: 84).</td>
<td></td>
</tr>
<tr>
<td>Thutmose III — Viziers</td>
<td>There are some very powerful officials, the office of whom can be passed from father to son (Bryan 2006: 74). These are judges, administrators and have economic responsibilities (for instance, collecting taxes). Texts inform modern researchers about the administrative system of Thutmose II, e.g. the 'installations of Duties of the Vizier' in the tomb of TT 100 (Rekhmire) (Bryan 2006: 70). The vizier represents the king. He delivers and collects taxes, receives and sends the royal messengers and deals with petitions concerning land (Bryan 2006: 70-71). A magistrate and the 'police' report to the vizier three times a year with respect to land ownership issues. The vizier's bureaucratic role as a chief executive officer of the Royal House is both ceremonial and ritual (Bryan 2006: 70). The vizier is responsible for the collection and redistribution of goods. Anything collected (tax, revenue, loot) has to be reported to the ruler as it belongs to the palace (Bryan 2006: 70-71). The vizier looks after the palace while the ruler is occupied with warfare (Bryan 2006: 72).</td>
<td></td>
</tr>
</tbody>
</table>
When Thutmose III was in power, there were two viziers in power: one for the south and one for the north of Thutmose's vast kingdom.

Two of the southern viziers during the reign of Thutmose III were Useramun and Rekhmire. Useramun for instance is seen (TT 61) receiving the tribute and supplies of the Northern lands (including the Aegean) and the produce of the vineyards in the Delta. The majors and other rulers of the state have to report to the vizier (Bryan 2006: 73).

Rekhmire was responsible for grain deliveries, tax collections, deliveries of supplies from foreign tribute (tax) and the like (TT 100) (Bryan 2006: 74).

Some administrative 'imitations': Other Nobles, and not the vizier Useramun, were responsible for the monuments and temples of Hatshepsut and Thutmose III. However Rekhmire was the overseer of the works in the temple of Amun. The role of the Overseer of Works in Karnak was not subject to the vizier (Bryan 2006: 74).

<table>
<thead>
<tr>
<th>Thutmose III</th>
<th>Overview of other high-rank officials</th>
</tr>
</thead>
<tbody>
<tr>
<td>—</td>
<td>Overseer of the Seal (royal treasurer), Overseer of the Granaries, the High Priest of Amun. The Overseer of the Seal is superior to the Overseers of the Gold and Silver Houses during Thutmose IV (Bryan 2006: 77). One of the 18th dynasty Overseers of the Seal was Senenmut (SAE 71), who later became Steward of Amun. The Overseer of the Granary has the duty to inspect the recording, collection and storage of the granary and then report to the king. Menkheperreseneb (TT86 and TT112) was also an Overseer of the granary' during the reign of Thutmose III and continued to serve in the reign of Amenhotep II. Among his other offices and duties, he was responsible for the collection of grain in the north of the Egyptian kingdom; moreover, he administered the temple of Heliopolis (Bryan 2006: 84-85). These officials maintained their own scribes and built their own monuments (Bryan 2006: 82).</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Thutmose III</th>
<th>Second-tier officers of the state</th>
</tr>
</thead>
<tbody>
<tr>
<td>—</td>
<td>All these officials are subordinate to the vizier and, of course, directly to the ruler.</td>
</tr>
</tbody>
</table>

Overseer of the Seal: This official is responsible for the opening of the Gold House (treasury) together with the vizier, and had to collect taxes and supplies. The overseer/s of the Gold and Silver House is/are also treasurer/s (Bryan 2006: 86).

Overseer of works: the official withdrawing precious materials from the treasury for the making of monuments (Bryan 2006: 86).

Overseer of the Ruyt: Official with judicial and non-judicial duties; also authority over those entering the palace (Bryan 2006: 87).

Royal Scribe: his authority is to record the leader's speech (Bryan 2006: 89).

Royal Herald: his authority is to speak on behalf of the leader in the royal court and during warfare (and often travels in order to do so, within and outside the borders of Egypt). The royal Herald often has to inspect the bringing of taxes and supplies and report from/to the king during this process (as seen from the tomb of Intef TT155). This official also has some participation in the recording of taxes (Bryan 2006: 91-92).
Royal messengers: these individuals are the king's representatives in Egypt and abroad. They are under the command of the Overseer of the Seal. Diplomatic immunity means that the enemy cannot hurt them or make them bow. They often operate as merchants too (Bryan 2006: 93, with examples).

<table>
<thead>
<tr>
<th>Thutmose III</th>
<th>Military administration</th>
</tr>
</thead>
<tbody>
<tr>
<td>Overseer of the Army: Responsible for leading the ruler's armies in and outside Egypt. The Overseer of the army inspects the delivery of revenues conquered lands such as Syria-Palestine (Bryan 2006: 103-106, with examples). Some other military titles: Overseer of Northern Countries, Overseer of Garrison, Overseer of the Scribes of the Army, Overseer of the Stables, Overseer of Foreign countries, Overseer of the desert, Overseer of Hunters (Bryan 2006: 106-107 with examples).</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Thutmose III</th>
<th>Palace administration</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chief Stewart of the king: an official keeping the accounts of the rulers' personal property. Very proximate to the ruler (e.g. Senenmut during Hatshepsut) (Bryan 2006: 94-95 with examples).</td>
<td></td>
</tr>
<tr>
<td>Royal Butlers: Their services takes place inside the palace. They are very proximate to the ruler, accompany their master in their campaigns and occasionally represente the king. They often have civil and military responsibilities (Bryan 2006: 95-96 with examples: one example is Kenamum – who was also a mayor).</td>
<td></td>
</tr>
<tr>
<td>Children of the Kap: responsibilities similar to 'pages'. Children raised in the palace. When they reach adulthood, they receive other offices (Bryan 2006: 95-96 with examples).</td>
<td></td>
</tr>
<tr>
<td>Royal Nurses: Male and female officials for a single royal child or a group of children. They act as tutors too (males) and wet nurses (usually females) (Bryan 2006: 96-99 with examples).</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Thutmose III</th>
<th>Regional administration</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mayors: these officials, under the commands of the vizier, are responsible for the individual nomes (counties) of Egypt, particularly for their economy, collection and transportation of harvest / taxes / supplies. They are also 'Overseers of Fields' (Bryan 2006: 99-101 e.g. Kenamun; mayor in Memphis).</td>
<td></td>
</tr>
<tr>
<td>The King's Son and Overseer of Southern Countries (vicery of Nubia): These officials could be Nubians raised in Egyptian palaces and then sent to the Egyptianised, and under Egyptian rule, Nubia). They have both administrative and military duties and often travel between Egypt and Nubia. Their subordinates are their deputies and military commanders (e.g. commanders of simple units of bowmen) (Bryan 2006: 101-103 with examples).</td>
<td></td>
</tr>
<tr>
<td>Military officers: commanders of units, Overseers of Horses (for the chariots). Scribes are also part of the army, keeping records of supplies and soldiers and keeping warfare logistics (Bryan 2006: 103 with examples).</td>
<td></td>
</tr>
<tr>
<td>Scribes and measurers operate for the recording of tax, granary, supplies and greeting gifts (Bryan 2006: 85).</td>
<td></td>
</tr>
</tbody>
</table>

<p>| Thutmose III | From c 1550 the 'domain of the God of Amun' (the main patron deity of Thebes) becomes the key institution in Thebes and Upper Egypt. |</p>
<table>
<thead>
<tr>
<th>Religious administration</th>
</tr>
</thead>
<tbody>
<tr>
<td>Religious titles are inherited (Bryan 2006: 112).</td>
</tr>
<tr>
<td>High Priests: The High Priests of temples have ritual and various other responsibilities, among them economic duties (Bryan 2006: 96).</td>
</tr>
<tr>
<td><em>Hem</em> Priests: officials operating from the reign of Hatshepsut to the 20th dynasty in Lower and Upper Egypt. They are administrators of the priesthood, property of the temple and are supervised by the High Priest.</td>
</tr>
<tr>
<td>First King's Son of Amun: an official who represents (and substitutes for) the king in the festival of Karnak (Bryan 2006: 110).</td>
</tr>
<tr>
<td>Other titles in religious administration: Lector Priest of Amun, Overseer of the Cattle, Overseer of the Fields of Amun, Mortuary Priests (for mortuary temples), (Royal) Steward, Overseer of the Workshops of Amun, Overseer of the erection of obelisk in Karnak, Overseer of Granaries of Amun, Overseer of the storehouse of Amun, Chief of Serfs of Amun. Also temple functionaries / priests, the personnel of the temple (men, women). Women in religious duties, such as the 'wife of Amun' (Bryan 2006: 109-112).</td>
</tr>
<tr>
<td>Other religious titles for other regions in Egypt (outside Thebes): Greatest of Seers in Heliopolis' (i.e. the high priest of Re), the High priest of Ptah in Memphis, the High Priest of Mut, High Priest of Osiris, High Priest of Thoth, etc. (Bryan 2006: 112).</td>
</tr>
<tr>
<td>There are also scribes who serve in the temples and overseers of religious monuments (Overseers of Works) (Bryan 2006: 112).</td>
</tr>
<tr>
<td>Example of religious official: Puimre, the second Priest of Amun, who served in the command of Hatshepsut and Thutmose III. In his tomb (TT 39) he appears receiving goods, taxes and plunder. He receives goods, tax, and offerings for the temple (Bryan 2006: 109), which suggests that the temples had their own property and practised trade at the time.</td>
</tr>
</tbody>
</table>
Table 34: Cretan contact and trade routes over time

<table>
<thead>
<tr>
<th>Period</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Late Pre-Palatial Crete (from EM IIB onwards) and Protopalatial Crete</td>
<td><strong>EM IIB</strong>: West Crete maintains relations with the Greek Mainland, central Crete with the Cyclades and East Crete with the Near East (Wilson 2008: 99; Betancourt 2008: 211-212, 214). Crete imports copper from Kythnos or, most likely, Laurion (Betancourt 2008: 212). Some (but limited) contact of Crete with Anatolia (Warren 1995: 1-2, 5-6) whereas the Cyclades (Kastri Group) use products with strong Anatolian connections (Betancourt 2008: 213). A very special relationship between Crete and Kythera (Minoan settlement) and the East Aegean (Wilson 2008: 96, 97). Extremely limited contact of Crete with the Western Mediterranean (Betancourt 2008: 213). Foreign influences in the social, political and administrative system.</td>
</tr>
<tr>
<td></td>
<td><strong>MM IA</strong>: First significant contact of Crete with the eastern Mediterranean, Egypt, the Near East and Anatolia (Manning 2008: 110, 113-114) and limited contact with the Aegean, e.g. Rhodes, Melos, Keos, Aegina and Mainland Greece (Manning 2008: 115; Knappett 2008: 129; Betancourt 2008: 213). Trade with the Near East, and particularly with Egypt, is controlled by very few individuals on Crete (Cosmopoulos 1991). Some, but limited contact with the Levant and Cyprus (Betancourt 2008: 214). A sphere of Minoan contact including regions from Kythera in the west, to Rhodes and the coast of Asia Minor in the east and Egypt to the south (Knappett 2008: 128).</td>
</tr>
<tr>
<td></td>
<td><strong>MM IB to II</strong>: Very special contact of Crete with Kastri (Kythera). Some (rather limited) contact between Crete and Thera and some contact with Miletos (Knappett 2008: 128). Cretan trade with the Aegean north is still limited to moderate, whereas trade with the east increases (Betancourt 2008: 214). Special relationship between Crete and Ugarit (Dossin 1970). Copper reaches Crete from Aegean sources but tin arrives from the Near East (Mari) (Dossin 1970; Betancourt 2008: 215). Possible contact of Crete with the regions of modern Afghanistan (Betancourt 2008: 216). Cyprus becomes an important Cretan way-station farther to the East and Crete maintains regular trade with the Near East (Betancourt 2008: 216). Cretan connections with Egypt increase, particularly through the ports on the south coast, whereas connection between the Cyclades and Egypt is almost non-existent at the time (Betancourt 2008: 216).</td>
</tr>
<tr>
<td>Neopalatial Crete</td>
<td><strong>MM III to LM IB</strong>: From MM III, increase of Cretan contact and influence across all of the Aegean, from the coasts of Greece to the coasts of Anatolia (Betancourt 2008: 217). Cretan contact with Mycenae, as seen from the archaeological finds at Grave Circles A and B (Betancourt 2008: 217). By LM IA, contact of Crete with the Cyclades (especially Thera, Keos, Melos), Kythera, Samothrace and the west coast of Anatolia (Miletos, Knidos) (Younger and Rehak 2008: 140). Thera and Kythera in particular receive immense Cretan influences. Some contact with Rhodes is also seen (Betancourt 2008: 217). International trade: Cretan (and Aegean) contact reaches as far as Mesopotamia and the Western Mediterranean. Some contact of Crete with Cyprus (Younger and Rehak 2008: 142). Cypriot pottery is imported to LM I regions on Crete (Gournia, Zakros, Malia, etc.) whereas in Cyprus (Toumba tou Skourou) there is a concentration of Minoan objects, to the point that a Minoan emporium in Cyprus has been suggested.</td>
</tr>
</tbody>
</table>
(Vermeule and Wolsky 1990). Cretan connections with the Levant and the Hittites. From MM III to LM I Cretan relations with Syria-Palestine are moderate and probably involve perishable goods. Contact with Mesopotamia is limited (Betancourt 2008: 218). Cretan contact with Egypt, particularly during LM IB and LM II, becomes very intense (Betancourt 2008: 218-219).

| Post-Palatial Crete (corresponds to Final and End Palatial Crete at Knossos) | **LM II**: regular contact with Egypt (Betancourt 2008: 218). Contact with the Levant, Syria and Cyprus Betancourt 2008: 219). Some contact with the Mainland, possible contact with Laurion. **LM IIIA1**: Special connections with Egypt (list of Kom el-Hetan, Cline and Stannish 2011). Contact with Cyprus and Laurion (import of metals) (Betancourt 2008: 222). **LM IIIA2**: Mainland Greece develops intense contact activity with Egypt, while, at LM IIIA2 early, there is destruction and turbulence on Crete. Nonetheless, in LM IIIA2 early and after the destruction, there is contact of Kommos with Cyprus, Syria-Palestine, Egypt and some contact with Italy and Anatolia. One notices extensive trade and relations of Crete with Cyprus (Cline 1995: 268-270), which, among other raw materials, finished products and commodities, supplies Crete with copper; however, copper is also imported from Laurion (Betancourt 2008: 218, 220-221). Cretan contact with Syria-Palestine is also intense, as seen in Kommos and elsewhere (Cline 1994: 263-267). Increased contact with Italy and the Western Mediterranean, and some relations with the Black Sea (Betancourt 2008: 222). |
**Table 35: An overview of Minoan politics and administration over time**

<table>
<thead>
<tr>
<th>Late Pre-Palatial Crete (from EM IIB onwards) and Protopalatial Crete</th>
<th>EM IIB: Increasing social hierarchy from the factional or kin leaders to the minor chiefs but rather limited evidence to prove a strong political hierarchy in comparison to the Neopalatial Period (Manning 2008: 107-108). Social stratification and existence of an active elite consuming exotica and prestige goods (e.g. elite burials in the cemetery of Phournoi and Mochlos) (Wilson 2008: 95-96, 100). Knossos becomes a key-centre (Manning 2008: 107). Complex social, political and economic landscapes, especially in urban centres (Manning 2008: 108). Geographically irregular urbanisation on Crete (Wilson 2008: 96, 97). Administrative seal usage suggests an emerging administrative system. Non-centralised authority (Manning 2008: 108-109). It is likely that some luxury goods were produced, imitated and circulated by specialist craftsmen (Bevan 2004).</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>MM IB to II: Politically organised society on Crete, with economic and political control. Sophisticated administrative system (sealings, writing). (Manning 2008: 106, 111-112). Old palace compounds at Knossos, Malia, Phaistos, Petras, etc. These palaces are residences of high-class individuals (Manning 2008: 112). Nonetheless, there is not enough evidence to prove the existence of a king; rather a group of leaders with religious and political services are more likely at the time (Manning 2008: 119). Palaces are centres of consumption, bearing a social and religious character, not centres of production and redistribution (Day and Wilson 1998). They are also ideological centres for cultural events (Manning 2008: 114). However, central control remains limited and Minoan states of the Protopalatial Period are still decentralised when compared to the Neopalatial Period (Manning 2008: 117-118).</td>
</tr>
<tr>
<td>Neopalatial Crete</td>
<td>Overview: The Protopalatial 'palaces' are enlarged and expanded and the island is heavily urbanised (Younger and Rehak 2008: 140, 178); nonetheless, the palace compound of Phaistos is diminished in importance by LM IA (Younger and Rehak 2008: 150). 'Villas' are developed along with major and minor palace compounds on the island (Younger and Rehak 2008: 141-142).</td>
</tr>
<tr>
<td></td>
<td>Society is ranked, an elite class is dominant and the operation of numerous administrative officials with economic, political, military and religious duties, especially at the end of this period, is a possibility (see this table 'Final Palatial Crete' and Younger and Rehak 2008: 179-182). Some rival political entities gradually receive more independence and political power (Betancourt 2008: 220). There is a developed administrative system of seals and sealings (Younger and Rehak 2008: 146, 159, 174) and documents / Linear A (Younger and Rehak 2008: 152).</td>
</tr>
<tr>
<td></td>
<td>Administration appears fragmented on the island (Younger and Rehak 2008: 1450-151). A three-tier hierarchical model of sites per major region is suggested by archaeological evidence (Younger and Rehak 2008: 151, 178), i.e. Knossos as the top of the political and</td>
</tr>
</tbody>
</table>
administrative system, followed by secondary level palace compounds (Phaistos, Mallia), which are followed by tertiary regional centres (Galatas, Gournia, Petras). There are minor centres for various geographical subregions of the island (each with its own palace compound) but Knossos seems to operate as a religious, political and economic centre (Younger and Rehak 2008: 151-152, 178). Nonetheless, whether Knossos is the main / sole administrative centre of the island, and whether the Knossos palace compound receive taxes from the other palace compounds and 'villas' on the island (along with the level of autonomy of the other palace compounds), remains problematic (Younger and Rehak 2008: 152). Equally problematic is the system of tax collection and the existence of administrative officials for such a service (Younger and Rehak 2008: 153-174). The centres collect products as tax and redistribute them and, most likely, have a cultural, judicial and military system (Younger and Rehak 2008: 178). More women than men appear in powerful roles (both religious and political) in the frescoes (Younger and Rehak 2008: 180).

LMII onwards: 'Mycenaean Crete'. At least some Cretan rulers speak Mycenaean Greek; and Knossos is controlled by a mainland-derived elite (Preston 2008: 311). Mycenaean Greek is the new administrative language (Linear B script). Knossos dominance over a large area of Crete, with the purpose of political and economic exploitation (Preston 2008: 310, 312-313).

Advanced administrative system, as seen from the seals and sealings and Linear B tablets from Knossos (Younger and Rehak 2008: 175-177). The Linear B tablets suggest that Knossos was the top tier on the site hierarchy, directly administering the regions around it. However, peripheral regions, such as Chania, Phaistos and Amnisos, were politically and economically controlled through second-order centres, i.e. indirectly. Certain officials who belonged to the elite class (mentioned in the texts as 'Collectors', agorā) may have administered these peripheral areas politically and financially (e.g. collecting taxes in kind or overseeing production) on behalf of the Knossos palace, but their role is not clear (Preston 2008: 311-312; Shelmerdine and Bennet 2008: 294).

Other officials (men and women) of the high-class may have maintained duties as overseers of a certain task, military officials or religious officials (Younger and Rehak 2008: 178-180). The Linear B tablets from Knossos also mention a ruler / king (wanax), the exact duties of whom are not clear but could be religious, political, military, judicial (Shelmerdine and Bennet 2008: 293). Also, 'leaders' of some description (lāwāgetās), with possible political, administrative and military duties, keqetai (followers), likely with military and ritual duties and g'asileis, overseers of some description (Shelmerdine and Bennet 2008: 294-295).

The Knossian state recovers after the early LM IIIA2 destruction, until LM IIIB1 or later (controversy over the exact date). Nonetheless, there is turbulence on the island because of rival political entities which have become more independent compared to the Neopalatial Period (Betancourt 2008: 219-220).
<table>
<thead>
<tr>
<th>When</th>
<th>Administration</th>
<th>Communication</th>
</tr>
</thead>
<tbody>
<tr>
<td>Middle Bronze Age</td>
<td>The core of the MH Mycenaean system is the Peloponnese, Attica, Boeotia, Euboea and coastal Thessaly. The periphery includes the Ionian islands, Aetolia-Acarnania, inland Thessaly, Epirus and Macedonia.</td>
<td>From MH I, increase of communication between the eastern coast of Mainland Greece and Aigina, the Aegean islands and Crete. Aigina even maintains some (rather limited) connections with the coasts of Italy and Asia Minor. Thessalia maintains contact with the northeastern Aegean. Certain sites develop more trade activities that others (for instance, Lerna and Argos). Particularly in MMIII – LH I (onwards), Mainland Greece exchanges prestige items with communities in and beyond the Aegean. It receives strong influences from the Aegean (esp. the Cycladic) islands and particularly from the more advanced Minoan palatial societies of Crete. Some (problematic) contact between Mainland Greece and Cyprus (copper imports). There are trade and communication networks between the southern and eastern coast of Mainland Greece / the Peloponnese and regions to the west and north, such as Epirus and Macedonia. There is also some limited communication between Mainland Greece and the Balkans and the Adriatic at the time. Minimal, indirect contact with Egypt.</td>
</tr>
<tr>
<td>(source with extended references: Voutsaki 2010: passim)</td>
<td>Settlement hierarchy by EH III. Appearance of larger and more complex domestic structures in Lerna in MH I and accumulation of wealth. Possible existence of elites as early as MH I-II (this view is supported by Kilian-Dirlmeier 1997). In MM III, population growth, increase in the number of settlements and a three-tier site hierarchy. Some degree of craft specialisation and the existence of 'household industries'. In MH III - LH II, rivalry among the Mycenaean centres and rivalry between competing leaders who have gained political power. Opportunity for diplomatic relationships.</td>
<td>Overview: Some political and administrative continuity from the last phase of the Middle Bronze Age. Elitism and rivalry between elites. Consumption of exotica as an indication of power and wealth. LH I-II: The core of the Mycenaean system is the region between southern and central Greece (Argolid, Messenia, Laconia, Attica, Boeotia, eastern Phocis and coastal Thessaly). Regions develop independently as cities-states with separate administrative and political systems and economic units controlled by powerful elites. The administrative system is centralised. Clear social stratification with the elite on top of the social scale. Some rivalry between elites, communities and competing polities; as a result, some settlements become autonomous. Specialised labour and</td>
</tr>
<tr>
<td>Late Bronze Age</td>
<td>Overview: Some political and administrative continuity from the last phase of the Middle Bronze Age. Elitism and rivalry between elites. Consumption of exotica as an indication of power and wealth. LH I-II: The core of the Mycenaean system is the region between southern and central Greece (Argolid, Messenia, Laconia, Attica, Boeotia, eastern Phocis and coastal Thessaly). Regions develop independently as cities-states with separate administrative and political systems and economic units controlled by powerful elites. The administrative system is centralised. Clear social stratification with the elite on top of the social scale. Some rivalry between elites, communities and competing polities; as a result, some settlements become autonomous. Specialised labour and</td>
<td>Overview: Closer relationship with the central Aegean, the Cyclades and Crete. LH I-II: Pylos and Mycenae in particular, among other regions (such as Corinth, Laconia, Argolid, Attica, etc.) develop close contact with Crete. The Mycenaean also maintain relations with Macedonia, Albania and Italy. Mycenaean pottery arrives in the Cyclades. Aegina, Kythera and Keos are 'Minoan bridges' to the Mycenaean world. Egyptian, Mesopotamian and Levantine commodities and finished items (particularly but not solely luxury ones) reach the Mycenaean world indirectly, via the Minoans. However, there are independent and direct Mycenaean contacts with Anatolia and Europe to the north. LH IIIA-B: Rivalry between Mycenae and Tiryns with respect to trade</td>
</tr>
<tr>
<td>(up to apr. LH IIIA1)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(source with extended references: Shelton 2010: passim and Burns 2010: passim)</td>
<td></td>
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<tr>
<td>LH IIIA-B: Expansion of settlements and population growth. The Mycenaean culture expands north to Mount Olympus, eastward to the Dodecanese and south to Crete. Exclusive elitism: the rivalry of the previous chronological period is followed by centrally focused and administered states, the administration of which is influenced by the Minoan palaces. The Mycenaean palaces are the centres of administration, production and culture. The palatial administration is evident from a complex system of seals/sealings and through the Linear B texts, which both suggest a complicated but effective polity, society and economy. Various Linear B tablets record a <em>wanax</em> (a king at the top of the social pyramid) and various officials with names similar to the titles of officials on Crete (table 35). These tablets also suggest that the land was owned by the palaces and palace officials and that there was craft specialisation. At the same time, the Mycenaean palaces are fully involved in trade within and beyond the Mycenaean borders. As a result of the gradually increasing power and the parallel 'decline' of the Minoan world, in LH IIIA2, the Mycenaean civilisation dominates the Aegean, expanding to the coast of Asia Minor, to Sardinia, to Macedonia, the northern Aegean and beyond, and possibly into the Black Sea.</td>
<td></td>
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</table>

networks and partners. Direct contact of Mainland Greece with eastern polities. Particular trade relationships with Cyprus and Egypt. Old trade partners to the north and west also remain in the profile of Mycenaean relations at the time. Certain Mycenaean centres (e.g. Mycenae) are involved in foreign trade more than others.
Table 37: Cyprus during the Prehistoric Bronze Age (PreBA): Politics and society, economy, trade and international relations (from the chronology point of view, the table corresponds to [table 11]).

<table>
<thead>
<tr>
<th>PreBA period</th>
<th>Overview</th>
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<tbody>
<tr>
<td>PreBA period</td>
<td>Overview</td>
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<tr>
<td>Overview</td>
<td>Cypriot trade from 2,800 to 1500/1450 BC focuses primarily on the Levant. However, other regions are also Cypriot trading partners and Cyprus maintains contemporary relations with the Aegean, Egypt and the Levant (Knapp 2008: 29) as seen from the steadily growing number of Egyptian, Aegean and Levantine exotica at Vounous, Lapithos etc. (Knapp 1994: 281; 2008: 76). Everyday and luxury commodities are exchanged between Cyprus and Crete, the Cyclades, the Levant and Egypt (Knapp 1994: 281; 2008: 116). During PreBA, Cyprus receives influences from its foreign trading partners.</td>
</tr>
</tbody>
</table>

PreBA I and PreBA II | Mid-late third millennium BC: Cyprus expands its trading system with Egypt and the Near East (Knapp 2008: 116). |

PreBA II and PreBA III | The emergence of local elites in Cyprus occurs during the EC-MC (PreBA II-III) periods. It is likely that, at that time, the Cypriot elite had already started controlling the circulation of metals such as copper (Knapp 1990: 158). During this period Cyprus practises active maritime trade with the Near East. Relations with Old Kingdom Egypt are proven by the discovery of faience beads and large alabaster vessels (Knapp 1994: 281). During EC and MC (PreBA II – III), White Painted and Yahudiye juglets were circulated between Cyprus, Egypt and the Levant (Maguire 1995: 55, 63). From the PreBA III onwards, the rulers of Cyprus, the Aegean, Egypt and the Levant, along with their merchants and other independent entrepreneurs, increasingly become involved in the production, exchange and consumption of raw materials, every day items and luxury goods (wine, oil, pharmaceutics, copper, tin, gold, glass, pottery, precious stones, etc.) (Knapp 2008: 132). As in the Aegean, the percentage of Cypriot pottery exported to Egypt from PreBA III onwards demonstrates a steady and gradual increase (Maguire 1995; Bergoffen 2005). |
Table 38a: Cyprus during the Protohistoric Bronze Age (ProBA) Politics and society, economy, trade and international relations
(from the chronology point of view, the table corresponds to (table 11))

**Part 1: Overview of ProBA in Cyprus**

| Polity and politics | Burials, houses and archaeological finds such as luxury goods suggest that a local, royal and extra-palatial elite controls production and circulation of commodities throughout the ProBA (Steel 2010: 806-808). However, the political situation and administration of ProBa Cyprus is clearer in ProBa II, since a number of texts (Egyptian, Levantine, etc.) refer to the elite, the administrative system and the rulers of the island. These texts refer to a 'prince', a 'king', a scribe' and even a 'princess'. The same texts place emphasis on the international, inter-palatial exchange of luxury items for diplomatic reasons and for trade (a complete list of these texts is given in Knapp 2008: 324-325). These texts (e.g. the Egyptian Amarna Letters) demonstrate that the Cypriot elite controls the circulation of metals and high value resources and maintains economical and political power (Moran 1996: 21-25). |
| Society | All social strata are represented and texts mention builders, merchants; even a princess and a king (Knapp 2008: 218-320). The people of ProBA Alasiya (particularly during the end of this period) are a multilingual and polyethnic group judging from the finds and texts of the era (see Knapp 2008: 322-320-323; Knapp and Cherry 1994: 42-47). Local inhabitants consist of Phoenicians, Anatolians, Hurrians, Semites, Anatolians, Egyptians, and native Alasiyans (most likely Alalakh and Ugarit are also multicultural at the time). Mycenaean and Mycenaean-Achaeans from the Peloponnese also dwell on the island from c 1400 onwards (Knapp 2008: 10-11, 173, 197, 216, 223, 236, 238, 249-250; Steel 1998: 291-292 with examples). However, the traditionally suggested Mycenaean-Achaeans / Aegean colonisation of Cyprus (c 12th, 11th century BC is still problematic (Knapp 2008: 250-259). The presence of Egyptians settled on the island is confirmed by the texts (Knapp 2008: 322-323). |
| Economy, trade and international relations | During ProBA, Cyprus maintains trade relations with the Levant (esp. Ugarit), Egypt and the Near East, the Aegean and Anatolia. Cypriot - Levantine relations flourished after c 1550 BC (Yasur-Landau 2010: 836) and the Alasiyan presence in Ugarit as well as commercial and military affairs between the two regions are seen from textual material (Scloen 2001: 322-326; Hoftijzer and Van Soldt 1998: 339). Contact with the Aegean and the Near East is rather intense, particularly from the 15th century BC onwards. At the same time, Syro-Palestine and Egypt are major trade partners of Cyprus, especially with respect to the trade and export of copper (Knapp 2008: 335). During the LBA Cypriot copper ingots reach as far as Sardinia, Sicily and Crete (Gale 1991: 200-201). |
Throughout ProBA but especially between 1650-1050 BC (ProBA I – ProBA III), the Cypriot rulers along with their merchants and other independent entrepreneurs who act as freelancers, increasingly become involved in the production, exchange and consumption of raw materials, every-day items and luxury goods (Knapp 2008: 132). Aegean and Cypriot pottery are found in Egypt at this time (Maguire 1995; Bergoffen 2005).

The ruler/s of Cyprus control/s the production and distribution of copper (Oller 1995). Cypriot palatial and extra palatial elites establish economic alliances with foreign rulers. Occasionally the linguistic analysis of their names reveals their foreign identities (Egyptian, Semitic, Anatolian, etc.) even though they turn to native Alasiyans over time (Knapp 2008: 358, 360).

**Foreign influences**

The elites of ProBA Cyprus imported and adopted foreign (Near Eastern, Egyptian and Levantine) influences to society, culture and art (particularly in ProBA II and III). The consumption of exotica and foreign insignia (e.g. Egyptian, Aegean, Near Eastern) manifest authority and social status. Some of these foreign imports, ideas and insignia are 'Cypriotised' in their new environment and some of the 'mixed-identity artefacts are preferred to the original Cypriot products (Knapp 2008: 161, 169, 270, with examples of artefacts; Flourentzos and Stylianou 1996: 6). Thus there is an economic and ideological relationship between Cyprus and Egypt and the Levant (Knapp 2008: 11).

**Examples of ports practising international seafaring**

Hala Soutlan Tekke Vyzakia is an important port during ProBA and receives imports from the Aegean, Egypt and the Levant (Knapp 2008: 235). Kition and Enkomi and other Cypriot seaside locations were also dealing with Egypt, the Aegean and the Levant (Knapp 2008: 270, 276, 277, 290 with examples of artefacts).
Table 38b: Cyprus during the Protohistoric Bronze Age (ProBA): Politics and society, economy, trade and international relations (from the chronology point of view, the table corresponds to (table 11))

**Part 2: Changes in politics, economics and international relations over time**

<p>| ProBA I trade | Gradual development of trade: during the second millennium BC, and especially from 1650 BC onwards, the Cypriot rulers, merchants associated with these rulers, and other freelancers / independent entrepreneurs practice local and international trade of raw materials, every-day and luxury commodities. The end of PreBA III and the beginning of ProBA I are the 'break-through moment' when Cypriots discover the benefits of trading local copper. The island becomes a full partner in the trade networks of the Eastern Mediterranean (Knapp and Cherry 1994: 43). |
| ProBA I key locations | Some key-locations are Enkomi, Morphou Toumba tou Skourou, Episkopi (Kourion), Hala Soultan Tekke Vyzakia, etc. (Knapp 2008: 136-138). |
| ProBA I relations | From the 16th century BC onwards, Cyprus maintains profound relations with Egypt, the Near East and the Levant and imports foreign ideas and prestige goods from these regions. Relations with the Aegean develop from c. 1500 BC. At the same time friendly relations are particularly maintained with the Canaanites. Imports of Syrian and Old Babylonian exotica (Knapp 1998; 2008: 150-151, 152-160). |
| ProBA I to ProBA II (transition c 1450 BC) | From the early 16th to the mid 14th century BC (when the Amarna Letters confirm a single king for |</p>
<table>
<thead>
<tr>
<th>ProBA II</th>
<th>ProBA II polity and politics</th>
</tr>
</thead>
<tbody>
<tr>
<td>NB: The exact time of this transition is problematic</td>
<td>Cyprus) (i.e. the centuries covering ProBA I, transition to ProBA II and ProBAII) Enkomi maintains persistent trade with Egypt and the Levant and functions as a gateway town towards Ugarit, Byblos, Troy, Kommos, Mycenae, Pyllos, etc. (Peltenburg 1996: 35-36; Knapp 2008: 132, 151). C. 1450 Cyprus and Egypt become involved in intensive political, economic and social interactions and the island maintains an amicable position towards the Pharaohs. Cyprus is well aware of the tremendous power of Egypt and does not wish to oppose the 18th dynasty superpower. Intensive relations with the Hittites are also maintained (Knapp 2008: 329). Cypriot relations with Egypt evolve swiftly from c 1500 BC onwards to reach their peak in the 14th century BC.</td>
</tr>
<tr>
<td>ProBA II international trade and relations as an 'elite' phenomenon</td>
<td>The practice of international trade receives a socio-political and economic meaning (Knapp 2008: 132). The Cypriot elite wear, consume and display Near Eastern, Aegean and Egyptian artistic and iconographic elements. The identity of this elite and the legitimisation of their power is linked to international trade and the 'International Style'; e.g. Rhyta of the international style, exchanged between the Mediterranean and Near Eastern Courts, carry a symbolic significance (Knapp 2008: 173).</td>
</tr>
<tr>
<td>ProBA II The Cypriot relations with Egypt: archaeology</td>
<td>Cyprus is centrally organised (both politically and economically) under a ruling class which constantly receives foreign influences, ideologies and inspiration with respect to its polity. Seals and inscriptions reveal a well organised bureaucratic, political and economic system (Knapp 2008: 380). The texts highlight the nature of the government of the island; see below: (table 38c) for texts demonstrating the polity and international relations of Cyprus.</td>
</tr>
<tr>
<td>ProBA II: The Cypriot relations with Egypt: archaeology</td>
<td>Kalavasos Ayios Dimitrios, Maroni Vournes, Enkomi, Kition, etc. produce copper and maintain direct contact with Egypt (as seen from Egyptian imports discovered there) (Knapp 1998). Cypriot exports to Egypt are very regular (see e.g. Merrillees 1968; 1975; Maguire 1995;2009 for Cypriot pottery and its imitations at Tell el-Dab'a). A Cypriot community lives at Tell el-Dab'a and must have facilitated trade with the island of Cyprus (Bietak 1996: 59). From the study of archaeological finds and texts, one gathers that Cypriot-Egyptian (Cypriot-Hyksos) relations are evolving after c 1850 BC but reach their peak in the 14th century BC. During the Hyksos Period, the Cypriots become major trading partners of the Hyksos, who are also trading intensively with southern Canaan.</td>
</tr>
</tbody>
</table>
| ProBA II: The Cypriot relations with Crete through archaeology | Minoan imports to Cyprus are uncommon (see e.g. the Kamares cup from Karmi, Stewart 1996b: 202, fig. 8, pl. VIII). Moreover, very few finished Cypriot items are sent to Crete at the time, to the point that, according to Manning, these may have been exchanged as greeting gifts on occasional meetings between trading partners (Manning 1999: 117-118, 128, fig. 33). Some 14th century BC
Cypriot pottery has been unearthed at Kommos in Southern Crete (Watrous 1992). In contrast, Mycenaean pottery has been unearthed in large quantities on Cyprus from the 14th century BC on. Popular Mycenaean pots on Cyprus include the stirrup jar and the pictorial crater (Steel 2004, 2010: 813). As a conclusion, one gathers that Cypriot- Aegean relations become intense after 1500/1450 BC.

| ProBA II Cyprus in the eyes of the Egyptians | By the 14th century BC the Egyptian Pharaohs considered Alashiya (= Cyprus, Knapp 1985, 1996: 1-13) as politically equivalent to other Eastern Mediterranean states and Cyprus participates vividly in the international elite transactions of the era (Knapp 2008: 8). The ruler of Cyprus maintains high level relations with Egypt and his relations with the Egyptian palaces are privileged compared to other states, though he does acknowledge the Pharaoh's higher rank (Sürenhagen 2001: 251). During the 14th-13th century BC (ProBA II) Cyprus is well connected to Egypt and the Levant but takes a neutral position when Egyptians and Hittites are at war in order to control the Eastern Mediterranean (Knapp 2008: 24). The Amarna Letters (e.g. EA 34) and other texts of the era show that the King of Cyprus is treated with respect by both his peers and other Eastern Mediterranean societies. |

| ProBA III | In LC IIIA the (debatable) Mycenaean presence on, and special contacts with the island are demonstrated from the fact that Mycenaean and Mycenaean-style pottery oust the indigenous tableware (Knapp 2008: 10-11, 173, 197, 216, 223, 236, 238, 249-250; Steel 1998: 291-292 with examples). In LC III there is a special link between copper production and religion at the time (Knapp 1988). |
Table 38c: Cyprus during the Protohistoric Bronze Age (ProBA). Politics and society, economy, trade and international relations (from the chronology point of view, the table corresponds to [table 11])

**Part 3: Some ProBA II texts demonstrating the international relations and policy of Cyprus with Egypt**

<table>
<thead>
<tr>
<th>Event</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>The Annals of Thutmose III</strong></td>
<td>The Annals of Thutmose III describe the 'supply' from Alasiya to the Egyptian court - and particularly the import ('bringing') of copper - in three separate texts: Year 34, year 38, and year 39. The same texts refer to a 'Prince of Alasiya' (Ockinga in Knapp 1996a: 42, texts 67-69). On the other hand, the Annals of Thutmose III (years 34, 39) verify that the Pharaoh sent generous gifts to Alasiya to reciprocate.</td>
</tr>
<tr>
<td><strong>Naharina List</strong></td>
<td>The Naharina list (Thutmose III) also mentions the name of Cyprus (Jirku 1937: 5-23). Even though this list could in theory suggest that the Cypriots acknowledged some level of Egyptian overlord, it is more likely that Thutmose III viewed Cyprus as a distant transshipment point (Knapp 2008: 326).</td>
</tr>
<tr>
<td><strong>Poetic Stela of Thutmose III</strong></td>
<td>Poetic Stela of Thutmose III (year 39): Alasiya and Crete are presented as subordinates of Egypt in the climate of Egyptian propaganda. However, Alasiya and Crete are not conquered by the Pharaoh – on the contrary, as the archaeological finds suggest, they simply trade with Egypt.</td>
</tr>
<tr>
<td><strong>Tomb of Rekhmire</strong></td>
<td>An inscription companying the 'tribute scenes' in the tomb of Rekhmire (TT 100) refers to copper ingots brought to Egypt from the 'chiefs of Keftiu and the Isles in the midst of the Great Green'. According to Knapp, it is likely that both Cyprus and Crete are implied by these terms (2008; 312).</td>
</tr>
<tr>
<td>EA 36: Shipment of Cypriot copper to Egypt (Moran 1992: 109-110)</td>
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<td>---------------------------------------------------------------</td>
<td></td>
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<tr>
<td>EA 37: Greeting gift of Cypriot copper to Egypt, along with horses, etc. Exchange of messengers between Alasiya and Egypt (Moran 1992: 110-11)</td>
<td></td>
</tr>
<tr>
<td>EA 38: The Cypriot ruler complains that the 'Lukki' frequently attack his country, just as they did in Egypt (Knapp 2008: 316). This complaint suggests proximity to the Egyptian court. Exchange of messengers between Alasiya and Egypt (Moran 1992: 111-112)</td>
<td></td>
</tr>
<tr>
<td>EA 39: Exchange of messengers between Alasiya and Egypt. Messengers were often merchants too (Moran 1992: 112 and particularly EA 39: 10-14)</td>
<td></td>
</tr>
<tr>
<td>EA 40: Shipment of Cypriot copper to Egypt, along with ivory, shipping equipment, etc. Messengers were often merchants too (Moran 1992: 113 and particularly EA 40: 24-28).</td>
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</tr>
</tbody>
</table>

To reciprocate the Egyptian Pharaoh sent to Cyprus a large number of luxury items such as an ebony bed, silver in large quantities, ivory, 'sweet oil', etc. (EA 35, 37, 40).

EA 114: Egyptian messengers travel via Cyprus (Moran 188-190; Moran in Knapp 1996: 24-25).

Conclusions derived from the texts:

In hieroglyphic texts 'Asiya' and 'Alasa' sent notable shipments of copper to Egypt, along with lead, ivory, horses, lapis lazuli, wood and silver (Vercoutter 1956: 179-180).

Various kings of Alasiya controlled trade of copper enjoying an independent political status and exchanging greeting gifts with foreign rulers such as the Egyptian court. From c 1450 onwards and in particular in the 14th century BC, relations between the Cypriot and Egyptian court become very close and a special agreement / alliance between the two regions becomes likely (see EA 34).

The exchange of messengers between Alasiya and Egypt was frequently difficult due to warfare, bandits and piracy. EA 35-39 mentions that an Egyptian messenger stayed in Cyprus for three years. Messengers exchanged between Mediterranean regions needed permission from their hosts to depart or they were trapped in regions due to warfare, piracy etc. (for instance a messenger from Tunip had to remain in Egypt for 20 years before he made his way back home (Ollen 1995: 1470). See also the fictional story of Wen-Amun (Goedicke 1975: 115-129) who was carried by the winds to Alasiya where he talked to the local princess to gain sanctuary.
Table 39: Overview of Levantine - Aegean relations  
(for Levantine chronology see (tables 1,2))

<table>
<thead>
<tr>
<th>The Middle Bronze I</th>
<th>The Middle Bronze II</th>
<th>Late Bronze Age</th>
</tr>
</thead>
<tbody>
<tr>
<td>(ca. 1950-1750)</td>
<td>(ca. 1750-1550 BC)</td>
<td>(ca. 1550-1200 BC)</td>
</tr>
</tbody>
</table>

The Minoans were in need of tin and copper; therefore, they conducted trade with Cyprus and Ugarit. The presence of Minoan merchants in Ugarit and the trade of tin are confirmed by textual evidence (Cline 1994: 126).

Protopalatial MM IIA-B pottery has been found in many north Levantine sites such as Ugarit, Sidon, Byblos and Beirut (Merillees 2003). However, at the same time, the Minoan exports to the Southern Levant (e.g. Ashkelon, Hazor) were not that plentiful (Merillees 2003: 136). Merillees (2003: 139) notices that the MM II pottery in the Levant was not the result of a special diplomatic Levantine-Cretan relationship but rather, the pottery was taken there by Minoan merchants / traders and targeted at middle class clients.

Mari collapsed (sometime between 1750 - 1664 BC, depending on chronological schemes followed) and its diplomatic relationships with Crete ceased. At the same time the Hyksos (of Semitic Levantine-Canaanite identity) were settled in Egypt; and this is when the transition to the Neopalatial period on Crete occurred. As a result, Minoan trade with the Levant was challenged. Concurrently, the Amorites developed trade contacts with the Aegean and Cyprus (Yasur-Landau 2010: 833).

The absence of MM III pottery imports and limited LM IA / LH I pottery imports in the Levant (Betancourt 1998: 6; Hankey and Leonard 1998: 31-32) demonstrate that Minoan trade with the Levant at that time was not that active; on the contrary Crete focused on the trade with Egypt and the Near East.

However, the presence of Aegean-style frescoes at Kabri and Alalakh suggest inter-elite relations and transactions (Niemier and Niemer 2000: 792). Levantine elites demonstrated their wealth and power through the consumption of foreign exotica and insignia. The Aegean-style frescoes in the Levant and the import and consumption of foreign luxury items are the result of the elite cosmopolitan spirit, which was manifested all over the Eastern Mediterranean and the Near East (Feldman 2007).

Apart from the Aegean-style frescoes at Alalakh and Kabri, two inscriptions demonstrate relations with the Aegean: a pithos sherd with Cretan Hieroglyphic (Day et al. 1999) and a stone basin from Lachish with Linear A signs. The latter suggests that (at least) a literate Aegean individual was present there (Finkelberg 1998: 267-69).

Aegean-Levantine relations change significantly during this period. The rise of the Egyptian and the Hittite empires turned the Levant to client rulers and vassals, therefore the Levantine palaces and freelance merchants could not practice independent foreign policy and trade. After several decades of tribute under Egyptian rule, the political and military power of the Canaan city-states was diminished.

While the Canaanites were under Egyptian rule, they had to pay tribute and taxes to the Egyptian rulers and, under circumstances of warfare and foreign authority, they lacked resources to decorate their palaces with Aegean-style Art (Yasur-Landau 2010: 836).

There is written evidence demonstrating the interactions between the Aegean and the Levant in the Late Bronze Age (Helzer 1978: 134; Ugaritic Merchant Sinaranu, ‘when from Crete his ship arrives’). On the other hand, there is no textual material in Linear B to suggest that Levantines and especially Ugaritans were in the Aegean - but this could have been possible (Yasur-Landau 2010: 836).

In general, Aegean - Levantine contact was indirect at the time while Cypriot - Levantine relations flourished (Yasur-Landau 2010: 836; Scloen 2001: 323-326; Hofijzer and Van Soldt 1998: 339).
### Table 40a: Egyptian economy. Mid Second Millennium BC (after Kemp 1989; Warburton 1997)

#### Elements of Egyptian Economy
Mid 2nd Millennium BC

<table>
<thead>
<tr>
<th>Element</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>The Nile</td>
<td>Farming and fishing</td>
</tr>
<tr>
<td>Mining</td>
<td>for metals and high-value raw materials</td>
</tr>
<tr>
<td>Manufacturing</td>
<td>of goods by various craftsmen</td>
</tr>
<tr>
<td>Muscle power and labour</td>
<td></td>
</tr>
<tr>
<td>Trade and exchange</td>
<td>(locally and with abroad) 'Greeting gifts'</td>
</tr>
<tr>
<td>Entrepreneurship</td>
<td>and private enterprise</td>
</tr>
<tr>
<td>Taxation and tribute</td>
<td>(revenues) for warfare, building projects, etc.</td>
</tr>
<tr>
<td>Wealth accumulation in a barter economy</td>
<td></td>
</tr>
<tr>
<td>Wealth re-distribution in a barter economy</td>
<td></td>
</tr>
<tr>
<td>Warfare, booty, expansionary policy, services exchange</td>
<td></td>
</tr>
<tr>
<td>Market in a barter economy</td>
<td>'price' fixing</td>
</tr>
<tr>
<td>Private property</td>
<td></td>
</tr>
<tr>
<td>Slavery (with limitations and restrictions)</td>
<td></td>
</tr>
<tr>
<td>'Palaces' (elite households, temples to some extend)</td>
<td></td>
</tr>
<tr>
<td>'Greeting gifts'</td>
<td></td>
</tr>
<tr>
<td>Private demand</td>
<td></td>
</tr>
<tr>
<td>Consumption</td>
<td></td>
</tr>
<tr>
<td>Conspicuous Consumption</td>
<td></td>
</tr>
<tr>
<td>Market</td>
<td>in a barter economy, 'price' fixing</td>
</tr>
<tr>
<td>Market</td>
<td>in a barter economy, 'price' fixing</td>
</tr>
<tr>
<td>Private property</td>
<td></td>
</tr>
<tr>
<td>Slavery (with limitations and restrictions)</td>
<td></td>
</tr>
</tbody>
</table>
### Table 40b: Egyptian economy: see also (tables 28-33)

<table>
<thead>
<tr>
<th>Function</th>
<th>Examples / evidence</th>
<th>Further references</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Barter and redistribution</strong></td>
<td>• The Egyptians lacked a vocabulary to describe the concepts of buying, selling and money. Inscriptions show that two words, word <em>ini</em>=to bring, to acquire, and <em>rdt</em>=to give were used in Ancient Egypt to express the procedure of barter (for textual examples of the use of <em>ini</em> and <em>rdt</em> see Warburton 1997: 221-237). In Ancient Egypt, exchange of precious metals equalled the concept of 'money'. Silver, in particular, was the 'planetary unit' used in ancient Egypt, as a medium of exchange, a unit and a store of value. Grain would serve a similar purpose (Warbourn 2003: 70, 75; Warburton discusses value and prices in Antiquity in Warburton 2003: 195-224). Ancient Egyptian exchange should be seen as an exchange of goods and not as a buying and selling procedure, as seen by Peet (1932: 124). See for example, the passage from Papyrus British Museum 10052 8: 6-7: 'I gave (the verb <em>rdt</em> is used) some barley to the workman Pnufer and he gave (the word <em>rdt</em> is used again) me two kite of silver'.</td>
<td>• For the Egyptian economy see e.g. Bleiberg 1981, 1988, 1997, 2007; Warburton 1997, 1998, 2005, with examples of texts and archaeological evidence. • For the application of modern economic theories to the Ancient Egyptian economy see Warburton 1998: 146; Polanyi 1977. • For the concept of redistribution in Egyptian economy see also Warburton 1997: 92-96; 2000: 67-68. • For the economic and administrative role of Egyptian palaces and temples see Kemp 1989: 183-197, 219-228, 234-236; Warburton 1997 (palaces and temples, particularly 32-70); Wilkinson R.H. 2000; Kemp 1989: 185-197 (temples). Regarding private trade, even though it dates back to the eighties, the edition of Archi 1984 is very enlightening on the</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Taxation and investment</strong></td>
<td>• The Egyptian state increased employment in Ancient Egypt via taxation and investment (Kemp 1989: 236-238; Warburton 1997 (for the different names and types of taxation); 1998: 149; Bleiberg 1988, etc). Taxes were collected from locals or foreigners (the last in the form of tribute and other revenue) ( Bleiberg 1996; Warburton 1997: 221-281). As the economy was primarily based on farming, institutions</td>
<td>• See the processional scenes of Nobles in chapter Six.</td>
</tr>
</tbody>
</table>

**see also (tables 28-33)**

- The Egyptian economy was barter led, and based on a system of redistribution with all sources moving from periphery to centre. Goods were taken from every individual to the palaces and / or temples and then redistributed to all, on the basis of class and social position (Janssen 1975).
- For the application of modern economic theories to the Ancient Egyptian economy see Warburton 1998: 146; Polanyi 1977.
- For the concept of redistribution in Egyptian economy see also Warburton 1997: 92-96; 2000: 67-68.
- For the economic and administrative role of Egyptian palaces and temples see Kemp 1989: 183-197, 219-228, 234-236; Warburton 1997 (palaces and temples, particularly 32-70); Wilkinson R.H. 2000; Kemp 1989: 185-197 (temples). Regarding private trade, even though it dates back to the eighties, the edition of Archi 1984 is very enlightening on the
would acquire grain in the form of taxation to exchange with silver and other precious raw materials (Warburton 2000; 2005: 179, based on Keynes 1936).

### Warfare

- Warfare was also a typical method of profit accumulation for the state, along with the exchange of greeting gifts between elites (Aldread 1970; Bleiberg 1981; Kemp 1989: 236-237).
- See (table 29).

### Other sources of wealth

- Mining, exchange and management of working hands and production were also mechanisms of wealth accumulation on behalf of the state (Kemp 1989: 232-260, 191, 194). Warburton notices that institutions would even hire boats or pay sailors in order to move state products (Warburton 2005: 180; see also Kemp 1989: 184, 191 for archaeological evidence to support this theory).
- This is particularly noticeable from the eighteenth dynasty onwards. It applies to both New Kingdom palaces and temples. The temple of Seti I at Abydos, for example, had been granted rights at the gold mines of the Eastern desert. It was also given a sea-going ship for foreign trade equipped with 'traders' by Ramesses II (BAR III, p. 113, paragraph 274). See also the report of Wenamun (Goedicke 1975: 4).

### Trade and the state

- In Egypt, one should distinguish the concept of commodity 'trade' and exchange for profit-making, from the commissioned importation of goods through barter. Since no monetary unit was used, ancient Egyptian long-distance trade does not reflect a concept of profit, as there is no price setting involved (Bleiberg 1996: 24). Bleiberg notices (1996: 25, 26) that when expeditions were planned, their motivation for exchange was the proximity to the king and not profit making itself. However, the author of this thesis personally feels that when royal trade and exchange was conducted, there certainly was some indirect profit making for the trader. Not only because the trader served the king who would reward him for his services in titles and kind; but also because state traders often
- Trading expeditions are known from various Ancient Egyptian texts and iconography. Harkhuf, for example, travelled to Nubia, in order to bring back goods ordered by the king. His proximity to the king was his major reward (Vernus and Yoyotte 2003: 74). Similarly, in Wadi Hammanat Inscription No. 129, Mentuhotep IV commanded his official Amenemhat (the future Amenemhat I) to bring him a block of precious 'pure' stone from afar (Callender 2003: 145). It is also known that Hatshepsut organised a full expedition to Punt in order to bring back incense for the temple of Amun (Bryan 2003: 228-235). Her expedition in the search of commodities for the temple of Amun did not involve any risk
Differentiated themselves from the lower social classes with the consumption of luxury goods others could not obtain [§ traders' class]. After all, according to North (1977), when individuals participate in a reciprocity system, they gain economic advantage. His concept is right, as far as Ancient Egypt is concerned. Status, prestige and an easier life in combination with the consumption of luxury goods, the proximity to the king and the gods, were believed to bring economic advancement.

<table>
<thead>
<tr>
<th>Private trade?</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Moreover, if the 'market' and marketplace existed in Egypt from the Old Kingdom onwards, along with private property, then long-distance trade was not the monopoly of the Egyptian state. Some kind of freelance activity took place. Even so, the entrepreneur was indirectly dependent on the state, as he had to pay taxes in order to 'legitimise' his actions [§ traders]. Additionally, with high-quality products unearthed in non-palatial and religious institutions (e.g. cemeteries), in the author's view, it is unrealistic to regard that only the state conducted long-distance 'trade' (Archi 1984).</td>
</tr>
<tr>
<td>• The journeys of Harkhuf, Sabni and Pepinakht and Akhtoy manifest the role of trade and trader. For the story of Harkuf see Lichtheim 1973: 23-27; For Sabni and Pepinakht see Breasted 1906 (vol.1: § 357; §§355-60) even though their translation is very outdated. For Aktoy see Gardiner 1917: passim.</td>
</tr>
<tr>
<td>• Kemp refers to the 'shops' or market (i.e. marketplaces) found in tomb reliefs of the fifth, sixth and eighteenth dynasty (Kemp 1989: 253). Silver (1995) saw freelance 'trade' and market activity from the Old Kingdom onwards. He connected freelance 'trade' with private property and, to prove his concepts, he drew evidence from Ancient Egyptian documents, such as Berlin stela 24032 and Hekanakht's papers. Based on a number of texts, he also argued that there were private traders in Ancient Egypt (such texts included, for example, P. Lansing 4:8-10, Papyrus Sallier II: 'Satire of the Trades', P. Louvre E3226, etc.). However, he has</td>
</tr>
<tr>
<td>• With regard of the economic advancement derived from the proximity to the king: see for example the biographical fresco scenes from tombs of officials such as the tomb of Rekhmire, who served under Thutmose III and Amenhotep II. The last scenes on the eastern wall portray Rekhmire taking a boat journey in order to receive a high decoration from Amenhotep II. One of the most important aspects of serving the king and state was the fact that throughout his services, the official would enter 'afterlife' in luxury and fame.</td>
</tr>
</tbody>
</table>
Types of trade and types of traders

- The versatility of Ancient Egyptian traders is occasionally ignored. Trade specialists did not only act as traders but they also got involved in other activities to make a living. The act of 'trade' (=exchange), either domestic or long-distance, comprised production and labour. Both freelance and state traders were dependent on production and labour, even when dealing with intermediaries. Craftsmen, artists, missionaries, sailors, mercenaries, physicians, farmers and others would occasionally 'trade' their art, production, services and skills in order to get something back in exchange [§ traders' multiple careers] (Holmes 1975; Warburton 2005: 172, 175-176). Depending on the nature of their profession they acted locally or oversea. State traders and other professionals, proxy to their king, might even function as 'ambassadors', delegates and diplomatic messengers of their state in foreign lands. These professionals are a widely EM phenomenon and not only an Egyptian one. They participated in the gift-exchange process [§ gift exchange], which is one of the elements of the revenue and reciprocal Bronze age economy (See (table 27). These state-associated traders and other professionals participated in the gift-exchange process by producing / trading / circulating raw materials or finished items (every day

- EA 39 Moran 1992: 112: 'My brother, let my messengers go promptly and safely so that I may hear my brother's greeting. These men are my traders'

- See also chapter Five, for the theory of travelling artisans, and chapter Six for the Aegean delegates sent to the Egyptian court. See also chapter Seven: 'The protagonists of A-E interactions'.
commodities or luxury items) for the inter-elite gift exchange.

| Multitasking professionals | • Warburton (2005: 172, 180) has attempted to group employment in the Ancient Near East, and particularly in Egypt. Interestingly, he mentions that soldiers and sailors (when in Egypt or oversees) moved between various professions, acting sometimes as traders and farmers. These professionals, he argues, were sometimes hired by governors. They were also free to gather and trade wood while travelling.
  • Moreover, according to Warburton (2005: 175-176), individual craft specialists travelled from region to region in search of work and exchange of their services, even beyond the borders of their political systems. These were additional to the stay-at-home craft specialists who served their local community. Craftsmen in the Bronze Age EM and Near Eastern centres were, like most professions, either dependent on the state and institutions or they worked freelance, but their labour and products were utilised by the state (Warburton 2005: 180). Albeit, the effect of freelance (to some extent) professionals, craftsmen included, should not be ruled out, even though the activity of these entrepreneurs was limited in comparison with state enterprise (Warburton 2003: 182). Craftsmen who worked for the state were given specific raw materials and specific instructions to manufacture given products. In many cases, the finished products were designated in advance to be used in temples, palaces or as diplomatic gifts (Warburton 2005: 181).

| | • Some of these freelance craftsmen are shown trading their products in wall-paintings from tombs such as the tomb of Khnumhotep and Niankh-khnum (Moussa and Altenmüller 1977). |
Table 41a: Cretan economy. Mid Second Mil. BC (after Watrous 2001; Rehak and Younger 2001; Schoep 2010; Hallager 2010; Nakassis et al. 2010)

Elements of Cretan Economy
Mid 2nd Millennium BC

- Farming and fishing
- Metallurgy (limited) and weapons manufacture
- Manufacture of goods by various craftsmen
- Building projects
- Seafaring
- Taxation (details problematic)
- Wealth accumulation in a barter economy
- Wealth re-distribution in a barter economy
- Private enterprise & property
- Trade and exchange (locally and long-distance)
- Manufacture and Production: Palaces, elite households
- Palaces & elite households collection, storage and redistribution of goods
- Textile industry
- 'Palaces', elite households (shrines?)
- Conspicuous consumption. Art and manufacture for the elite class
- Building projects
- Collection, storage and redistribution of goods
Table 41b: The economy of Crete and the Archipelago

<table>
<thead>
<tr>
<th>Function</th>
<th>Examples / evidence</th>
<th>Further references</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Scripts and official documents</strong></td>
<td>• Apart from the two Linear scripts (see examples) occasionally information about Aegean economy comes indirectly, from scripts of other contemporary civilisations. For example, a Mari document of the Voyage of Zimri Lim mentions that silver was given to the interpreter of the chiefs of the Cretans (?), demonstrating a) that payment was done in precious metals; and b) that Minoans (?) - and in particular Minoan trade specialists - were present in Ugarit.</td>
<td>• For the Early Minoan period see also Watrous 2010. For a discussion over trade and gift exchange see Rehak and Younger 2001: 428-431.</td>
</tr>
<tr>
<td></td>
<td>• Linear A tablets may include lists of commodities. Linear A was used mainly on Crete, but some Linear A tablets have been discovered on Thera, Kea and Melos. Linear A might be unscripted but the majority of texts appear to be lists of commodities (?) or dedications to deities. Linear A and Cypro-Minoan remain unsatisfactorily translated, therefore the relevant inscriptions cannot provide any solid indications of economic character (Shelmerdine 2008: 11-14; Thomas 2010: passim). Evans first introduced the idea that the Minoan hieroglyphic script derived from Egyptian hieroglyphs, as there are some similarities between the two scripts (Evans PM1: 271-276). Today, this sounds highly unlikely. The two scripts probably appeared and developed individually (Karetsou et al. 2000a: 76).</td>
<td>• For recent work on Linear A and B see Thomas 2010 and Palaima 2010 respectively. For recent work on Minoan seals see Weingarten 2010; Also, Watrous 2001: 176 for the early Minoan period seals; and Rehak and Younger 2001: 404-406 for possible uses of seals.</td>
</tr>
<tr>
<td></td>
<td>• Linear B tablets, such as KN B 822, B 988, etc manifest aspects of economy and administration. Linear B has been translated, therefore it provides more solid information than Linear A (Ventris and Chandwick 1973). Some Linear B inscriptions come from Knossos, even though these texts are seen as administrative, rather than economic. Some of these texts do however deal with organisation, circulation and production (See for example the JN series dealing with bronze, discussed by Smith 1992/93; Muhly 1986: 59). Two tablets from Knossos (KN B 822, B 988), discussed by Olivier, indicate the procedure of selling one person to another (qi-ri-jà-to : 3rd pers. sing=he bought / do-e-ro: acc. masc.</td>
<td>• Archi 1984 refers to the circulation of goods in non-palatial environments in the Ancient Near East.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• For militarism on Crete see Manning 1986. For Aegean artisans abroad see Chapin 2010: 229.</td>
</tr>
</tbody>
</table>
sing=slave), in a form of a contract of sale, but does not indicate the value of the 'product' (Olivier 1987). For recent work on Linear B see Palaima 2010. See also Rehak and Younger 2001: 451-454.

- The Mari document of the Voyage of Zimri Lim (ARMA 1270= ARMT 23: 556: 28-31 (after Bardet et al. 1984: 528-529) records the dealing of the local elite with tin import from the East; the same text mentions traders, i.e. traders from Crete, i.e. it suggests that Minoan traders (most likely state-associated) acted in Mari and Ugarit, even from the 18th century BC onwards. The ethnonym 'Ka-pta-ru', appearing in Semitic records, is a rather problematic term, and it remains questionable by researchers (it is said to identify Crete or, less likely, Cyprus). It was initially connected to any peoples engaged in trade between the west and east Mediterranean, and it is not linked to Cretans, as it was in the Late Bronze Age (For the correlation of the Semitic name 'Kaptara' with Crete see Vercoutter 1956: 106-113; Strange 1980: 9-15 and Heltzer 1989: 13-14). The same document mentions the payment of an interpreter of the chief of the 'Kaptaru' in Ugarit (Bonnet 1995: 118; Heltzer 1989: 12). It is possible that Cretans worked in the gateway community of Ugarit, with Bonnet even arguing that there was a Cretan colony there (Bonnet 1995: 119).

- On the wreck of Pseira, see Archaeology Volume 63 Number 1, January/February 2010, by Bonn-Muller can be read on http://www.archaeology.org/1001/etc/minoan_shipwreck.html
- For affluent Minoan households and their role in production and trade see Schoep 2010: 114, 116, 117, 122.

| Minoan palaces | • It is traditionally known that Minoan palaces played an administrative role and collected taxes, stored and redistributed goods, got involved in foreign trade and had their own craftsmen to operate and serve the elite. Recent studies, however, suggest that the 'palaces' were largely consumers, rather than producers of goods | • Nakassis et al 2010 highlight the fact that the first palaces had a ritual character, with the political character of the palaces developed during the presence of Mycenaenaeans on Crete (on this see also Driessen 2002: 3). Driessen (2002: 8) also states that Minoan palaces were 'communal, ceremonial centres that were used both by non-elite (outside)
Nevertheless, through the years, palaces maintained religious, economic and political authority (Watrous 2001: 173-215, 203; Rehak and Younger 2001: 393-432; Tomkins and Schoep 2010: 67-71, 114; Weingarten 2010; Hitchcock 2010; Nakassis et al. 2010).

and by elite ?(inside) groups as meeting places for ritual, integrative actions'. The ritual character of the palaces, does not however, diminish their administrative function (Nakassis et al. 2010: 242).

**The foundations of Aegean economy**

- Certain aspects of the traditional palatial economical and administrative model, such as social inequality, long-distance trade, specialised craft production, inter-elite gift-exchange, urbanism, settlement hierarchy and centralisation started in the Early Minoan period well before MM IB (Tomkins and Schoep 2010: 67). From EM I onwards Tomkins and Schoep see an economy built on farming, ceramic production, full time specialists for a large, social, internal market, the production of prestige products, seafaring, metallurgy and the circulation of metals (Tomkins and Schoep 2010: 68-69). Sealings and writings soon became administrative tools (Tomkins and Schoep 2010: 71). Elite households already participated in remote trade (Tomkins and Schoep 2010: 70. See also Watrous 2001: 175).

- Evidence of large numbers of imported exotica is seen in the Protopalatial cemetery at Mochlos (Colburn 2008).

- Examples of exchanged exotica are discussed in the Annex.

<table>
<thead>
<tr>
<th>Palace and non-palace elite</th>
</tr>
</thead>
<tbody>
<tr>
<td>• In the last ten years of research, the role of the Minoan 'palaces', and that of Minoan elite households, has been reconsidered. Middle and Late Bronze Age palatial courts mixed religion and politics but to what extent remains unclear. From the Middle Bronze Age onwards the monopoly of production and circulation of goods did not belong to the palaces (Schoep 2010). It is possible that Kamares ware was not only restricted to the ruling class and it may have been produced outside the Cretan palaces; in fact,</td>
</tr>
<tr>
<td>• The term 'Minoan court buildings' or 'Minoan court courts' has been introduced by Schoep 2002a, 2010, as it isolates these buildings from their old, traditional identity and, in particular, the fact that they were the royal residence of the Minoan ruler. For the reasons why terms 'palatial court / compound / court' are preferred see also Nakassis et al. 2010: 240.</td>
</tr>
<tr>
<td>• The consumption of exotica in non-palatial environments is seen in the case of Quarter Mu. See the publication of Pursat and his colleagues on</td>
</tr>
</tbody>
</table>
Schoep has highlighted the presence of elite households at Malia - Quarter Mu, and elsewhere (Schoep 2006; 2010: 114, 116, 117, 122. See also Watrous 2001: 199). These elite households were involved in the manufacture and circulation of drinking vessels, pottery and textiles, metal, etc., perhaps through affiliated specialists. The discovery of high-quality artefacts in Minoan palaces, affluent households and rural shrines indicates that these all somehow participated in their production and circulation; evidently, it was not only palaces that engaged in elite domestic and long-distance 'trade' (Schoep 2010: 117, 122, Watrous 2001: 212). This is also noticeable at Akrotiri, Thera, where some affluent households had a multiple communal / ritual / industrial character (Tzachili 1989, particularly with regard to textile production, and Barber L.N. 2010b: 160-163). It is likely that the same thing occurred in the emporion of Kastri on Kythera (Hägg and Marinatos 1984). Even on Crete, there is some evidence that production occasionally took place outside the palaces themselves, even though in an elite environment. See for example the discussion of the Malia workshops in Schoel (2010: 122) which indicates that affluent households were involved in the production of elite objects, probably through specialists.

- It is sensible, therefore, to place the elite households at the top of the social scale, along with the Middle Minoan 'palaces' even though the relationship between the two is obscure. The same economic character applies to the Late Minoan period. Linear scripts and seals display, not only the cultural, economic and administrate elements of this era, but also historic changes (Rehak and Younger 2001: 393-397-402, the excavation of Quarter Mu at Malia, and Rehak and Younger 2001: 403, 413.

- Kamares were produced outside the palaces. For the Kamares ware production outside the palaces see Day and Wilson 1998. For Kamares ware distribution to the various social classes see Walberg 2001.

- For Akrotiri and buildings of industrial character see the description of the service quarters, ceremonial rooms and industrial units described in N. Marinatos 1984: 11-21.

- Kastri must have acted as a Minoan colony from EM IIB to LM I or II. In LH IIIA2 it was displaced by the Mycenaeans (see Coldstream and Huxley 1972).
<table>
<thead>
<tr>
<th><strong>Xenomania and economy</strong></th>
<th>• Xenomania is evident from the large amount of goods from afar discovered on Crete and the Islands [§ xenomania]. Prestige goods from afar become a fashion. The workshops of the 'palaces' and affluent households were dependent on raw materials coming from the East, along with foreign technical knowledge (Burns 2010: 296).</th>
<th>• See the finished artefacts from the Aegean in the Annex.</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>The foundations of Aegean economy</strong></td>
<td>• The majority of the population in Bronze Age Aegean towns (owned and / or) worked land, even those who were primarily priests, administrators or craftsmen. In small-scale Bronze Age Aegean societies land exploitation was fundamental to the economy (Dickinson 1994: 45-47). Hand in hand with land exploitation came the exploitation of animals. This involved exploiting animals for their meat, milk and wool; also, exploiting horses as pack animals and to pull chariots, as indicated by both scenes from early Neopalatial and the Linear B tablets (Dickinson 1994: 48-50). As seen in the case of Egypt, anywhere in the Bronze Age world, multiple skills were considered necessary to make a living.</td>
<td>• See the discussion of travelling craftsmen in chapter Five.</td>
</tr>
<tr>
<td><strong>Production, types of trade, and production and trade specialists</strong></td>
<td>• Trade, in the sense of exchange, was conducted by the palaces, affluent households and other individuals as their primary or secondary profession [§ traders]. Freelance trade in the Aegean has been discussed by Cline (1995b, 278-281). One could argue that anyone might conduct</td>
<td>• e.g. the flotilla fresco from Thera dating c 1600 BC, the Pseira seal which dates c 1800-1675 BC or the c 2000 BC seal from Palaikastro. • The discovery of the first Minoan Shipwreck at Pseira (which dates around 1800-1650 BC) sheds new light on the Minoan traders' profession and</td>
</tr>
</tbody>
</table>
'trade', at least on a local scale, from farmers to kings and from fishermen to craftsmen. Minoan individuals who travelled abroad, i.e. soldiers, sailors, artisans, travelling craftsmen, etc., were also likely to conduct long-distance trade (Manning 1986; Chapin 2010: 229. Frescoes and seals depict boats of various types and sizes, hence it is known that Minoans were competent sailors and they vigorously expanded their 'market' abroad. Cretan traders must have been involved in long-distance trade, considering the amount and type of Minoan artefacts discovered abroad.

- Trade should always be linked with production [§ traders' multiple careers]. Where there is production one should expect trade. Minoan craft-workers belonged to three groups [§ crafts-worker]: a) the household craft-workers, b) specialised craft-workers, i.e. individuals with specialised knowledge getting involved in craftwork widely practised, e.g. pottery or metalwork, and c) craft-workers who worked with expensive materials whose work required exceptional skills; these were patronised by persons of high status and were linked to the 'palaces' or affluent households (Dickinson 1994: 95). Craftsmen linked to the state practised their profession full-time, supported directly by their masters. Part-time craft-workers would probably have to cultivate the land as well in order to make a living (Dickinson 1994: 96). Warburton (2005: 175) suggests that Near Eastern institutions would hire craftsmen either as independent entrepreneurs (freelancers) or institute-dependants; the same may often apply on Crete. Craftsmen, and other professionals, were either freelancers or they worked for the state.

demonstrates local trade east and west of the island; along with a coast-hopping activity and short trajectories with specific 'clients'. It is assumed that, due to centralisation, traders were often based in urban environments (Dickinson 1994: 69).

- For the theory of travelling fresco painters in relation to the Avaris frescoes see chapter Five.

- A Linear B text on AP639 mentions a ke-ra-me-ja, a Knossian woman pottery-maker (or, more likely, potter). Dickinson 1994: 97; Rehak and Younger 2010: 414.

- Rehak and Younger 2001: 454-455 provide the Linear B vocabulary for textile makers: e.g. ka-na-pe-we = fullers, ne-ki-ri-de = workers, ko-u-ra = cloth, a-zel-ke-ti-ri-ja= female decorator of cloth. A recent source on Aegean textiles is Burke 2010. See, in particular, Burke 2010: 431 for the textile 'trade'. For the textile industry at Thera, Kea, and Rhodes see Tzachili 1997: 183-193 and Davis 1984 respectively. Also, for the textile industry in the Islands see Burke 2010: 433-434.
Nevertheless, freelance labour / trade was restricted by the state, since all freelancers were strongly or loosely 'state'-associated (for example, they had to pay taxes, protection fees and contributions to the state, i.e. the palaces, temples and other institutions). Metalsmiths and jewellery makers, together with other categories of Minoan craftsmen and the sources of their materials are discussed by numerous researchers (e.g. Rehak and Younger 2001; Evely 2010).

- Women played an important role in production. Pottery making, including fine wares, was in continuous demand in the Bronze Age Aegean, and it is likely that women were involved in it (Rehak and Younger 2010: 414). Additionally, according to texts of the Final palace phase at Knossos, women were probably employed to produce textiles, not only for domestic needs of Cretan society, but also for export (Dickinson 1994: 76; Rehak and Younger 2001: 454-455). Warburton (2005: 173) adds that the manufacture and sale of textiles was a fundamental industry across the Near East, from the Aegean to Iraq, the monopoly of which belonged either to the palaces or other agents.
Table 42: Egyptian administration; circa Mid Second Millennium BC (after Kemp 1989; Warburton 1997)

<table>
<thead>
<tr>
<th>Elements of Egyptian administration c. mid 2nd Millennium BC</th>
</tr>
</thead>
</table>

- **The Pharaoh (Divine monarchy)**
  - All decision making by the Pharaoh
  - Pharaoh administering 'state' officials and ruling the masses.
  - Institutions keeping records of people, property, etc.
  - Foreign relations: Warfare and expansionary policy, including diplomacy and services exchange
  - Secretarial duties: royal correspondence (Hieroglyphs)
    - Palaces controlling manufacture and trade
    - Palaces managing labour
  - Institutions manipulating sources of wealth
    - Palaces accumulating and redistributing wealth (via revenues, looting, etc.)
    - Palaces conducting rationing
  - Pharaoh's building projects (towns, cemeteries, temples, palaces, tombs, forts, etc.)
  - Temples accumulating wealth and working in a symbiotic relationship with the palace (esp. from New Kingdom onwards)
    - Institutions exchanging surplus produce
    - Religious and other festivals and jubilees
    - Royal succession
  - To 'secure' afterlife for the king and his officials
    - Creating 'history' and 'propaganda'. Advertising power
    - Technological and cultural exchange (not limited to the elites)
Table 43: Cretan administration. Circa mid Second Millennium BC (after Schoep 2010; Hallager 2010; Nakassis et al. 2010)

Elements of Cretan administration c. mid 2\textsuperscript{nd} Millennium BC

<table>
<thead>
<tr>
<th>Element</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Social and economic ranking</td>
<td></td>
</tr>
<tr>
<td>Palaces, 'villas', temples</td>
<td></td>
</tr>
<tr>
<td>Sophisticated literate bureaucracy within the palaces</td>
<td></td>
</tr>
<tr>
<td>Aspects of internal administration and foreign affairs</td>
<td></td>
</tr>
<tr>
<td>Cult and culture Ceremonial and ritual activity</td>
<td></td>
</tr>
<tr>
<td>Centralisation</td>
<td>Reception, storage, (re-)distribution and Inventory of goods</td>
</tr>
<tr>
<td>Colonisation (?) - contact with gateways / diasporas</td>
<td>Conspicuous consumption and 'art' for the elite</td>
</tr>
<tr>
<td>Management of goods coming from outlying areas</td>
<td>Technological and cultural exchange</td>
</tr>
<tr>
<td>Management of goods coming from outlying areas</td>
<td>Archiving of everything: from goods to people</td>
</tr>
<tr>
<td>Management of goods coming from outlying areas</td>
<td>Taxation</td>
</tr>
<tr>
<td>Management of goods coming from outlying areas</td>
<td>Linear A – Linear B</td>
</tr>
</tbody>
</table>

King /s (?)
The elite

Management of goods coming from outlying areas

Technological and cultural exchange

Archiving of everything: from goods to people

Taxation

Linear A – Linear B
**Table 44a: Aegean-Egyptian interactions in the Third Millennium BC: general observations**

<table>
<thead>
<tr>
<th>Time Period</th>
<th>Context</th>
<th>Observations</th>
</tr>
</thead>
</table>
| 3rd Mil.              | Crete establishes relations with the Cyclades, Greek Mainland, Egypt, Near East, Anatolia, Mesopotamia, Sicily and Malta | The Aegean is connected to Egypt c. 2600 if not earlier (Warren 1995: 12)  
Crete receives artistic cultural, and technological influences from Egypt (Phillips 2008a, b)  
3rd Millennium: Aegean - Egyptian relations are indirect, via intermediaries  
Subsequent evidence for Egyptian contact with Crete is uncertain until MMIA (Phillips 2008a, b, 2010)  
Crete: full-time specialists for a large local market production of prestige goods  
(Tomkins & Schoep 2010: 68)                                                                 |
|                      | **A 'special' connection is developed between Crete and the Cyclades and especially Kythera** (Watrous 2001: 173) | Cretan elite imports exotic and produces foreign imitations (Tomkins & Schoep 2010: 70)  
Aegean - Egyptian relations appear almost unidirectional: from Egypt to the Aegean (Phillips 2008)  
Proto-urban Knossos plays a key role in foreign trade (Tomkins & Schoep 2010) |
|                      | **An increase in Cycladic imports on Crete** (Tomkins & Schoep 2010: 70)                           | Local chiefs at Knossos 'trade' with foreign lands (Watrous 2001: 175)  
Some similarities between Early Minoan Tholos tombs and some North African tombs (Cosmopoulos 1991: 163)  
Personal gifts-greeting gifts.  
All Aegytiaca found on Crete have a personal character (Phillips 2008a, b)  
No Aegean items dating to the 3rd Millennium have been unearthed in Egypt (Karetsou et al. 2000a)  
Crete exchanges ideas and goods with foreign lands (Cosmopoulos 1991: 162) |
|                      | **ERA: Cyclades**  
Campos Group  
Crotta-Pelos culture  
Keros-Syros culture  
Kastri Group, Pylos culture (Renfrew 2010) | Minoan architecture and technology is influenced by the Near East (Watrous 2001: 196-198)  
Exotica reach the Aegean elites: Frendship trade based on reciprocity (Cosmopoulos 1991: 162, 165, 166)  
EM: Cretan workshops produce Egyptianising stone vessels (Warren and Hankey 1989: 125; Warren 1995: 2)  
Initiation of symbolic influences between Minoans - Egyptians e.g. seals (Arzu 2004)  
Messara, Mochlos, Palaikastro and other locales function as moorings in the trade routes to Egypt  
(Karetsou et al. 2000a: 25)  
Cretan workshops produce Egyptianising Scarabs (Warren 1995: 2; Karetsou et al. 2000a: 25)  
Crete: long-distance trade, specialised craft production starts at EM and well before MM IA (Tomkins & Schoep 2010: 67)  
Aegean - Egyptian relations tend to become more direct |
|                      | **Egypt: Old Kingdom**  
c. 3200 to 2686 BC  
and  
F. I. P. (c. 2160 to 2055 BC)  
(Bard 2003: 56-82;  
Malek 2003: 83-107;  
During the 3rd millennium BC Crete appears to be the margin of the Near East  
EM III: Cretan workshops produce Egyptianising Scarabs (Warren 1995: 2; Karetsou et al. 2000a: 25)  
Crete: long-distance trade, specialised craft production starts at EM and well before MM IB (Tomkins & Schoep 2010: 67)  
Aegean - Egyptian relations tend to become more direct |
**Table 44b: Aegean - Egyptian interactions in the Third Millennium BC: some exchanged items**

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Egyptian / Egyptianising vessels on Crete (Karetsou et al. 2000a: 27-45, 38-45, 41-46 with figures)</td>
<td>Beads of faience, Disk-shaped, globular and spherical, were imported to southern Crete and Mochlos from Egypt (Warren 1995: 2)</td>
<td>Predynastic stone vessels discovered at Knossos come from problematic, likely later, contexts (Bevan 2004: 110-111)</td>
<td>Hippopotamus ivory, semi-precious stones and faience technology may have arrived to Crete from Egypt (Warren 1995: 12)</td>
<td>No Aegean items dating to the 3rd Millennium are unearthed in Egypt (Karetsou et al. 2000a)</td>
<td>Exotica in Crete have a personal and elite character (e.g. exotica from Mochlos)</td>
</tr>
<tr>
<td>Heart-shaped spiraliform design in the tomb of Hepzefa at Assiut (reign of Sesostris I) is Minoan (Shaw 1970; Barber 1991: fig. 15-23)</td>
<td>Embroidered or woven patterned textiles must have travelled from Crete to Egypt (Shaw 1970: 28)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Table 45: A very elementary table presenting Aegean - Egyptian association of images, themes, cults and practices (after Marinatos, N. 1993; 2007a; 2007b; 2010a; Banou 2008; Watrous 1992; Phillips 2008; Karetsou et al. 2000)

<table>
<thead>
<tr>
<th>Crete / the Aegean</th>
<th>Egypt</th>
<th>Crete / the Aegean</th>
<th>Egypt</th>
</tr>
</thead>
<tbody>
<tr>
<td>Minoan 'Genius'</td>
<td>Standing hippopotamus deity (Taweret / Ipy / Ret / Ashaheru / Debiher and partly Amnut)</td>
<td>Nature imagery: Lilies, ivies, lotus flowers, palm trees, rosettes, papyrus (?)</td>
<td>Sacred plants and emblems for the Egyptians</td>
</tr>
<tr>
<td>Monkeys / apes / baboons</td>
<td>Thoth (moon/ writing / knowledge)</td>
<td>Minoan horns of concentration / peak sanctuaries</td>
<td>Solar cult and they Egyptian symbol of horizon – djew</td>
</tr>
<tr>
<td>Cat image</td>
<td>Cat &lt; Atum / Ra (and later, Bast)</td>
<td>Divine sacred marriage and dual deities</td>
<td>Divine sacred marriage and dual deities</td>
</tr>
<tr>
<td>Minoan scarabs/ oids</td>
<td>Egyptian scarabs &gt; Kheper scarab beetle (Khepri) and solar cult</td>
<td>Emphasis on fertility / sexuality / maternity</td>
<td>Emphasis on fertility / sexuality / maternity</td>
</tr>
<tr>
<td>Crocodile image</td>
<td>Amnut / Sobek (and partly Taweret)</td>
<td>Funerary cult, death and rebirth</td>
<td>Afterlife</td>
</tr>
<tr>
<td>Minoan griffin Sphinx</td>
<td>Egyptian griffin / sphinx (solar cult, power, afterlife)</td>
<td>Fly image</td>
<td>Fly amulets / apotropaic / bravery</td>
</tr>
<tr>
<td>Bull / cattle image</td>
<td>Hathor / Isis / Nut / Bat / Min (Apis and Mnevis Bull)</td>
<td>Claw image (amulet)</td>
<td>Apotropaic power / amulet</td>
</tr>
<tr>
<td>Image (e.g.)</td>
<td>Associated Deities</td>
<td>Attributes</td>
<td>Additional Information</td>
</tr>
<tr>
<td>-------------</td>
<td>--------------------</td>
<td>------------</td>
<td>------------------------</td>
</tr>
<tr>
<td>Snake image (e.g. snake goddess) and cobra</td>
<td>Cobra Wadjet / Buto / Renenet / Meretseger / Apep / Naunet, Amaunet, Hauhetand Kauket</td>
<td>Sistrum</td>
<td>Sistra are associated with Hathor in Egypt. Sackred knot associated with 'ankh' and 'Isis knot'.</td>
</tr>
<tr>
<td>Falcon / Hawk image</td>
<td>Horus's ba / Montu / Sokar / Hathor / Qebehsenuef</td>
<td>Bee</td>
<td>Bit (emblem of Lower Egypt) / Neith</td>
</tr>
<tr>
<td>Frog image</td>
<td>Heket / Nun, Amen, Heh and Kek (fertility)</td>
<td>Ox foreleg / hoof</td>
<td>Khepresh, symbol of royal and divine strength</td>
</tr>
<tr>
<td>Goose image</td>
<td>Geb / Isis</td>
<td>Sacred knot (e.g. fresco: la Parisienne)</td>
<td>Sacred knot associated with 'ankh' and 'Isis knot' / life, creation, fertility (see e.g. Andrews 1994: pl. 64: five bottom amulets and pl. 68)</td>
</tr>
<tr>
<td>Lion image</td>
<td>Solar cult / Aker ('double lion–solar cult') / Shu / Tefnut / Sekhmet / Hathor / Mut / Nefertem / Apedemak / Bes and Min (partly)</td>
<td>Sacred trees / poles - posts / pillars</td>
<td>djed column of Osiris creation / power / creation</td>
</tr>
<tr>
<td>Ostrich (eggshells)</td>
<td>Ma'at wearing an ostrich feather / fertility / healing</td>
<td>Body parts, e.g. phallus, foot (mainly amulets).</td>
<td>Amulets / apotropaic / healing / sexuality / fertility. Foot =</td>
</tr>
<tr>
<td>Scorpion image</td>
<td>Serqet / Shed / Tabitjet / Isis</td>
<td>Hunt and controlling the beasts</td>
<td>amulet for strength (amulets of body parts are used in mummification). See Andrews 1994: pl. 67)</td>
</tr>
<tr>
<td>----------------</td>
<td>-------------------------------</td>
<td>--------------------------------</td>
<td>----------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Ram image</td>
<td>Banebdjedet / Khnum</td>
<td>Springs and earth (i.e. earth deities)</td>
<td>Water (creation / fertility, etc.)</td>
</tr>
<tr>
<td>Minoan solar (and stellar) cult</td>
<td>Egyptian solar (and stellar) cult</td>
<td>Household cult and magic</td>
<td>Household cult and magic</td>
</tr>
<tr>
<td>Mortuary customs (grave goods, figurines, etc.)</td>
<td>Mortuary customs (grave goods, figurines, etc.)</td>
<td>Anthropomorphic vessels of pregnant women / plastic figures of pregnant women</td>
<td>Pregnancy / fertility / healing Gravidenflasche and muttermilchkrüglein</td>
</tr>
<tr>
<td>Divine king (?)</td>
<td>Divine king</td>
<td>Clay models of two-floored buildings</td>
<td>Soul house</td>
</tr>
<tr>
<td>Palaces = temples</td>
<td>Palaces and Temples</td>
<td>Triton</td>
<td>Apotropaic / amuletic / fertility / good luck</td>
</tr>
<tr>
<td>Processions / sacrifices / libations</td>
<td>Processions / sacrifices / libations</td>
<td>Dwarf or baby figures (problematic)</td>
<td>Bes/et (?) / fertility</td>
</tr>
</tbody>
</table>
Table 46a: Development of scarabs / scaraboids in Egypt (after Phillips 2008: vol.1: 108-139)

<table>
<thead>
<tr>
<th>Date</th>
<th>Features</th>
<th>Further references</th>
</tr>
</thead>
<tbody>
<tr>
<td>Late Eleventh dynasty</td>
<td>Scarab seals spread into much of the Nile valley. They were elaborately presented, with figurative designs carved on the face, and occasionally with hieroglyphic signs. Type <em>nb-ty</em>: An individual hieroglyph or a plant flanked by bent lotus stems in a <em>nb</em> basket (V 30 sign in Gardiner) or two. Sometimes the basket is excluded. This type demonstrates seven variations. The previously popular linear designs, appearing on the face of the First Intermediate Period scarabs and scaraboids declined.</td>
<td>See Ben-Tor 2007: 16 for <em>nb-ty</em> typology. Also, Phillips 2008: vol. 1: 116-117 for a brief overview of Eleventh dynasty scarabs.</td>
</tr>
<tr>
<td>Early Twelfth dynasty</td>
<td><em>nb-ty</em> scarabs slowly declined. They were replaced by scarabs with elaborate backs and sides and faces with characteristic spiral and scroll patterns and complex designs. Some scarabs demonstrated hieroglyphic signs on the face, often of amuletic nature, or, even, anthropomorphic / zoomorphic figures. The 'name scarab' was introduced. 'Name scarabs' were developed in the mid Twelfth dynasty, when the funerary use of these items became very popular, to the point that they were inscribed with <em>m3-³hrw</em> (= justified) on the face, plus the name of the deceased.</td>
<td>See Ward 1978: 32-36 for examples and Phillips 2008: vol. 1: 117 for an overview of the Twelfth dynasty scarabs. The earliest example of 'name scarab' is the one of the Wah scarab (reign of Amenemhat I). For private 'name-scarabs' see Ward 2007: 36-38.</td>
</tr>
<tr>
<td>Late Thirteenth Dynasty and Hyksos Period</td>
<td>In the late Thirteenth Dynasty Canaanite scarabs appeared, and their tradition continued throughout the Hyksos Period. Scarabs in Middle Egypt and the Delta were simplified, their backs and sides less elaborate (Sides without T-lines, heads mainly trapezoid, unembellished back, smaller size). On the face, scroll motifs declined, anthropomorphic / zoomorphic figures appeared in sunk relief, names of individuals (with plentiful royal examples) continued and sometimes the face was divided into three parts: border-text-border.</td>
<td>See Phillips 2008: vol. 1: 119-121 for a discussion of Canaanite scarabs and further references. See Phillips 2008: vol. 1: 116; Martin 1971: pl. 72, 74 (pictorial examples); Andrews 1994: 54. An excellent source of information on the Canaanite type of Scarabs is Ben-Tor 2007, who provides the most up-to-date typological</td>
</tr>
</tbody>
</table>
Early Eighteenth dynasty | In the dawn of the Eighteenth Dynasty, the early Middle Kingdom scarab style revived. Scarabs were generally small in size, with naturalistic backs and sides. Their faces demonstrated not only names / epithets of individuals, but also short amuletic texts. Zoomorphic and anthropomorphic figures also continued; or even sympathetic deities for protection. | See Phillips 2008: vol. 1: 116-117; O'Connor 1985: 9, 33; Andrews 1994: 54-55.

Mid Eighteenth dynasty | Scarabs were still naturalistic in presentation. Royal and divine name scarabs were very common; private name scarabs became rare. Faces were inscribed with decorative hieroglyphic signs, anthropomorphic / zoomorphic figures and some spiral motifs. Text became very popular from the mid Eighteenth dynasty onwards. | Phillips 2008: vol. 1: 117 (overview).
Table 46b: Scarabs, scaraboids and ovoids on Crete. Local and imported (after Phillips 2008: vol.1: 108-139)

<table>
<thead>
<tr>
<th>Period</th>
<th>Features</th>
<th>References</th>
</tr>
</thead>
<tbody>
<tr>
<td>Prepalatial</td>
<td>During this period, on Crete, scarabs and ovoids are found in tombs (property / offering). In MM IA 'white-piece' (enstatite) material scarabs appear. Local manufacture of scarabs and ovoid seals is initiated in MM IA. Typically Minoan or atypically Egyptian face designs. In Minoan examples, border lines are diagonally cut from the outer edges, contra the Egyptian prototypes. Also, the T-lines on the back of Minoan examples are very deep and wide, contra the Egyptian examples. Many Minoan examples have 'open type' head, rare in contemporary Egypt. Face has decorative motifs, no names or individuals or text. Egyptian imports on Crete date the late Prepalatial.</td>
<td>Phillips 2008: vol. 1: 122-125 with examples and further references. See also ibid: distribution map 15.</td>
</tr>
<tr>
<td>Protopalatial</td>
<td>Egyptian Scarab seals are imported to MM IB, MM IIA Crete and some locally produced items, clearly Minoanised and in typical Minoan aesthetics. Scarabs are not only seen in funerary contexts in this period. 'White-piece' material no longer employed. Styles 1 and 2 (Minoan typology for locally-made scarabs). Hornless stone figurines / horned clay figurines and appliqués and style 1 are seen in northern Crete.</td>
<td>Phillips 2008: vol. 1: 125-128 with examples and further references. See also ibid: distribution map 16.</td>
</tr>
<tr>
<td>Neopalatial</td>
<td>Egyptian scarabs are imported and other scarabs and ovoids are locally produced with soft stones and even from imported raw materials. Local Style 2 is evolved.</td>
<td>Phillips 2008: vol. 1: 128-129 with examples and further references. See also ibid: distribution map 17.</td>
</tr>
<tr>
<td>Final palatial</td>
<td>Very limited number of scarabs, scaraboids and ovoids come from Final palatial Crete. Some local heirloom scaraboids bear names of Amenhotep III and his wife, Ty; these are copies and not administrative, but rather, amuletic, since their prototypes are plentiful in Egypt.</td>
<td>Phillips 2008: vol. 1: 129 with examples and further references. See also ibid: distribution map 18.</td>
</tr>
</tbody>
</table>
Table 47: Terminology used in scarab-type artefacts
<table>
<thead>
<tr>
<th>Site / context</th>
<th>Pottery</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kahun / settlement</td>
<td>17 imported Kamares sherds; 9 sherds locally produced, with Minoanising decoration</td>
</tr>
<tr>
<td>El-Harageh cemetery / dump</td>
<td>MM IIA Kamares sherds (up to 20 pieces)</td>
</tr>
<tr>
<td>El-Harageh cemetery / tomb 326</td>
<td>2 locally produced Minoanising bowls with crinkled rims</td>
</tr>
<tr>
<td>El-Lisht, fill west of Amenemhat's I pyramid / context unclear (cemetery? / settlement?)</td>
<td>MM IB II Kamares sherds (4-6 in number, among them, 2 possible imitations)</td>
</tr>
<tr>
<td>El-Lisht / tomb 879</td>
<td>Locally produced jug with MM III and Syro-Palestinian stylistic influences</td>
</tr>
<tr>
<td>Gurob / tomb of the late 18th dynasty (245)</td>
<td><strong>LM IIIA2 conical rhyton (Mycenaean rather than Minoan)</strong></td>
</tr>
<tr>
<td>Abydos / tomb 816</td>
<td>MM II bridge-spouted Kamares jug</td>
</tr>
<tr>
<td>Abydos / tomb 328</td>
<td><strong>Rim of a LM IB spouted bowl (Minoan and Mycenaean features)</strong></td>
</tr>
<tr>
<td>Abydos / tomb ? / context unknown</td>
<td><strong>LM sherds of bridge-spouted jug?</strong></td>
</tr>
<tr>
<td>Qubbet el-Hawa / tomb 88</td>
<td>Genuine Kamares or imitation? Floral appliqués.</td>
</tr>
<tr>
<td>Buhen / tomb</td>
<td>MM Vase with Minoanising paint decoration</td>
</tr>
<tr>
<td>Tell el-Dab'a / 13th dynasty gardens</td>
<td>MM IIB Kamares sherds (cup)</td>
</tr>
<tr>
<td>Tell el-Dab'a / context unknown</td>
<td>MM IIIA/B Post-Kamares sherd</td>
</tr>
<tr>
<td>Tell el-Dab'a / Thutmoside waste deposit</td>
<td><strong>Imitations LM IA (fragments of) rhyta</strong></td>
</tr>
<tr>
<td>Tell el-Dab'a / 18th dynasty palace magazine</td>
<td><strong>LM IA complete rhyton</strong></td>
</tr>
<tr>
<td>Tell el-Dab'a / Tuthmoside waste deposit associated with the palace</td>
<td><strong>Levantine amphoriskos with a few LM IA features</strong></td>
</tr>
<tr>
<td>Location / Context</td>
<td>Pottery Description</td>
</tr>
<tr>
<td>--------------------------------------------------------</td>
<td>-------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>'Ezbet Rushdi / domestic context (reign Amenemhat II)</td>
<td>MM IIIA 'open-mouth' amphorae</td>
</tr>
<tr>
<td>Wadi Gawasis / mid 12th / early 13th dynasty (red sea port deposit)</td>
<td>Sherd of Kamares ware (?) Awaiting full publication.</td>
</tr>
<tr>
<td>Sidmant / cemetery A, tomb 137</td>
<td>LM IB hole-mouthed pot</td>
</tr>
<tr>
<td>Sidmant? / context unknown and origin uncertain</td>
<td>LM IB bridge-spouted jug-handle</td>
</tr>
<tr>
<td>Armina / 18th dynasty tomb</td>
<td>Imitation LM rhyton</td>
</tr>
<tr>
<td>Kom Rabia'a / mud-brick debris from the settlement</td>
<td>LM sherd (bridge-spouted jar, baggy alabastron or conical rhyton)</td>
</tr>
<tr>
<td>Deir el-Medina ? / unclear context and origin</td>
<td>Imitation LM IA rhyton</td>
</tr>
<tr>
<td>Egypt / unknown context</td>
<td>LM IB 'Abbott Jar' / two LM IB cups</td>
</tr>
<tr>
<td>Nubia: provenance unknown</td>
<td>Imitation LM IA rhyton with red painted rim</td>
</tr>
</tbody>
</table>

*The table is based on the overview of Barrett 2009. For further references about pottery presented in this table see the extended bibliography in Barrett 2009 and in particular, tables 2 and 3. Late Minoan pottery is presented in bold.*
Table 49a: From production to archaeological context: 'direct transportation'

Transported Egyptian items and time (possibility 1: direct transportation)

Case 1: less likely
- Contemporary transport: item's date and context contemporary
  - Manufactured in time V
  - Transported in time V
  - Used in time V
  - 'Buried' in time V

Case 2: likely, with limitations
- Non-contemporary transport: item 'antique' in its context
  - Manufactured in time V
  - Used / modified in time W
  - Transported in time X
  - Used / modified in time Y
  - 'Buried' in time Z

KEY
- Time V: a particular point in time
- Time W: long after time V
- Time X: long after time W
- Time Y: long after time X
- Time Z: long after time Y
- step not necessary

Egypt

Crete
Table 49b: From production to archaeological context: 'indirect transportation'

Transported Egyptian items and time (possibility 2: indirect transportation)
Table 49c: from production to archaeological context: 'made in the Levant'

Egyptianising items and time (possibility 3: made in the Levant)
Table 49d: from production to archaeological context: made on Crete

Egyptianising items and time (possibility 4: made on Crete)
Table 50: Brief diagram of the development of Tell el-Dab'a over time

<table>
<thead>
<tr>
<th>Period</th>
<th>Events</th>
</tr>
</thead>
<tbody>
<tr>
<td>Heracleopolitan</td>
<td>First traces of city in the Heracleopolitan period (estate of a king Khety with the name Hw.t R3w3.ty Hty)</td>
</tr>
<tr>
<td>12th Dynasty</td>
<td>Planned settlement under Amenemhet I. Temple in honour of Amenemhet I built by Senwosret III. Settlement of Asiatics from late 12th dynasty onwards. These Asiatics were employed by the Egyptian crown.</td>
</tr>
<tr>
<td>15th Dynasty</td>
<td>Beginning of the Hyksos Period (str. E/2-1) Immense growth of the city under the Egyptianised Hyksos. Contact with Cyprus is manifested by the plentiful Cypriot pottery discovered in Avaris.</td>
</tr>
<tr>
<td>18th Dynasty</td>
<td>Ahmose's invasion: major destruction after the fall of Avaris to the Egyptians. Camps, silos and soldiers' graves. New palace compound constructed (3 palaces) Minoan frescoes. The palace compound (dates to Thutmose III to Amenhoptep II), together with the town in the south and the bay at the river in the north, can (in Bietak's mind) be identified with Peru-nefer, the major Egyptian naval and military stronghold. Kerma pottery – Kerma soldiers in the area.</td>
</tr>
<tr>
<td>Very end of 18th Dynasty</td>
<td>Fortress of Horemheb against the Hittites.</td>
</tr>
<tr>
<td>19th Dynasty</td>
<td>Ramesses I reoccupies the city of Avaris, renamed as Piramesse.</td>
</tr>
<tr>
<td>21st, 22nd Dynasties</td>
<td>Establishment of Tanis west of Piramesse, with the second city deteriorated.</td>
</tr>
</tbody>
</table>
Table 51: Various dates suggested for the Avaris frescoes

<table>
<thead>
<tr>
<th>Researcher</th>
<th>Date of Avaris frescoes</th>
<th>Correlation with Aegean chronology</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Niemeier and Niemeier 1998</td>
<td>Hyksos period</td>
<td>LMIA</td>
<td>Problematic, but yet worthy to consider. Manning 2010b brought back into consideration the late Hyksos date.</td>
</tr>
<tr>
<td>Bietak 1995</td>
<td>Late Hyksos Period and maybe, very early 18th dynasty</td>
<td>Contemporary with LM IA</td>
<td>Revised</td>
</tr>
<tr>
<td>Bietak 2005</td>
<td>Sometime during the reigns of Thutmose I and II or maybe as late as the reigns of Hatshepsut and Thutmose III</td>
<td>Reign of Thutmose III</td>
<td>In this case Prof. Bietak follows a low chronology scheme as seen in Bietak et al. 2007a: 16</td>
</tr>
<tr>
<td>Bietak 2007</td>
<td>Period of Thutmose I to Thutmose III (i.e. 150 years time span)</td>
<td>Ranging from LM IB to early LM II</td>
<td>The scholar follows Manning's 1999 dendrochronology (17th Dynasty contemporary with LM IB), therefore, if the frescoes dated Thutmose III they would be contemporary with LM II</td>
</tr>
<tr>
<td>Brysbaert 2007</td>
<td>Early Thutmose period or during the reigns of Thutmose III and Hatshepsut</td>
<td>Either LM IA (corresponding to Thutmose I) or LM IB (corresponding to Thutmose II or Thutmose III and Hatshepsut)</td>
<td>According to this researcher, the latest possible date for the frescoes is the beginning of the reign of Thutmose III / Hatshepsut in LM IB.</td>
</tr>
<tr>
<td>Morgan 2004</td>
<td>Early 18th Dynasty</td>
<td>The two scholars support that the Tell el-Dab'a toreador fresco matches more closely Knossian toreador iconography of the LM II / III</td>
<td>The two researchers take into consideration the Mycenaean takeover on Crete since LM II / IIIA seems to be the time that the Mycenaean first imported bull-leaping scenes to the Greek Mainland.</td>
</tr>
<tr>
<td>Shaw / Younger 2009</td>
<td></td>
<td>The scholar links the Avaris wall paintings with the LM I art schools and the pre-eruption art of the LM IA period.</td>
<td>The scholar's observations are based on the comparison of ornamental scenes from Tell el-Dab'a to contemporary Aegean and Egyptian patterns.</td>
</tr>
<tr>
<td>Aslanidou 2007</td>
<td></td>
<td>Sceptical about date</td>
<td></td>
</tr>
</tbody>
</table>
### Table 52: Technique of the Tell el-Dab'a paintings

<table>
<thead>
<tr>
<th>Category</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Plaster</strong></td>
<td>Lime plaster containing calcite and small quantities of dolomite. Some samples demonstrate a single layer of plaster and paint whereas others demonstrate multiple layers of both materials. Crashed Murex shell, effectively calcium carbonate, was added to the plaster. Plaster was applied on the wall, and while still wet, it was floated, flattened and polished. In certain cases, a layer of clay plaster, 1-2 cm thick, mixed with straw, was applied to the wall with bear hands before the final lime plastering (Brysbaert 2007: 155). The plaster used in Tell el-Daba has a similar consistency to the plaster used at Knossos, Mycenae and Akrotiri. Dolomite has also been found in the plaster used at Palaikastro, Thebes, Monastiraki and Phylakopi (Brysbaert 2007: 153).</td>
</tr>
<tr>
<td><strong>Pigments</strong></td>
<td>Red, yellow, black, white, greens and blues. Some pigments were made of mixed ochres (results as noticed by Brysbaert 2007: 155). Red, yellow, orange ochres → hematite, goethite, limonite, with combinations of them for lighter versions. Black → carbon White → lime white Greek → Mixed Egyptian blue and yellow grains Blue → cuprorivaite (Egyptian blue), sometimes containing tin or arsenic dark blue → blue over black or black over blue</td>
</tr>
<tr>
<td><strong>Thickness of plaster and paint layers</strong></td>
<td>variable</td>
</tr>
<tr>
<td><strong>Technological elements</strong></td>
<td><em>Al fresco</em> was probably used in all Aegean Tell el-Dab'a paintings, even those considered earlier of mixing <em>al fresco</em> and <em>al secco</em> (Brysbaert 2007: 157 contra Bietak 2005: 78-79; Bietak 2007b: 68). This, according to Brysbaert, is indicated by the pigment penetration of Egyptian blue in the plaster which demonstrates the plaster was wet when pigments were applied (i.e. the technique called <em>al fresco</em>). Red or yellow under-drawings (<em>sinopie</em>) were used but were not obvious in the final result (Brysbaert 2007: 155-156).</td>
</tr>
<tr>
<td><strong>Grid</strong></td>
<td>No Egyptian grid was used for the life-size figures (Aslanidou 2005).</td>
</tr>
<tr>
<td><strong>Working hands</strong></td>
<td>Various working hands can be distinguished. It is almost certain that some artists were more experienced than others e.g. masters were more experienced than pupils (Bietak and Marinatos 1995: 60).</td>
</tr>
<tr>
<td>Tomb</td>
<td>Suggested date</td>
</tr>
<tr>
<td>-------------------</td>
<td>-------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Senenmut (TT 71) at Sheikh Abd el-Qurna</td>
<td>Hatshepsut (prior to her year 16, c. 1487)</td>
</tr>
<tr>
<td>Puimre (TT 39) at Asasif</td>
<td>Early Thutmose III according to Wachsmann or Hatshepsut-Early Thutmose III according to Panagiotopoulos</td>
</tr>
<tr>
<td>Intef (TT 155) at Dra' Abu el Negga'</td>
<td>Early Thutmose III</td>
</tr>
<tr>
<td>Amenusser / Useramun (TT 131) at Sheikh Abd el-Qurna</td>
<td>Early Thutmose III (before his 28th regnal year, but after his co-regency with Hatshepsut has ended, i.e. c. 1482-1476?) Note that Bietak (2007a: 39) believes that this scene dates to the joint reign of Hatshepsut and Thutmose III.</td>
</tr>
<tr>
<td>Mencheperreseneb (TT 86) at Sheikh Abd el-Qurna</td>
<td>Late Thutmose III and prior to the accession of Amenhotep II</td>
</tr>
<tr>
<td>Rekhmire (TT 100) at Sheikh Abd el-Qurna</td>
<td>Late Thutmose III and very early Amenhotep II (tomb completed after the accession of Amenhotep II)</td>
</tr>
<tr>
<td>Amenemhab (TT 85) at Sheikh Abd el-Qurna</td>
<td>Thutmose III-Amenhotep II</td>
</tr>
<tr>
<td>Amenmose (TT 89) at Sheikh Abd el-Qurna</td>
<td>Amenhotep III</td>
</tr>
</tbody>
</table>
**Table 54: Aegean processional scenes in the Theban tombs of Nobles: Brief description (after Wachsmann 1987; Panagiotopoulos 2001; 2006; Pinch-Brock 2000)**

<table>
<thead>
<tr>
<th>Tomb</th>
<th>Brief description of the Aegean processional scenes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Senenmut (TT 71) at Sheikh Abd el-Qurna</td>
<td>The Aegeans carry metal vases of typical Aegean manufacture and an unsheathed sword. Aegean porters carry, among other prestige items, two vapheio cups. Garments: breechcloth with codpiece and backflap supported by a broad belt.</td>
</tr>
<tr>
<td>Puimre (TT 39) at Asasif</td>
<td>Annual (?) contributions to the temple of Amun. A depicted man has Aegean facial features and wears an undecorated kilt with coloured borders.</td>
</tr>
<tr>
<td>Intef (TT 155) at Dra' Abu el Negga'</td>
<td>Very badly preserved scenes. The upper register depicts Aegeans bearing diplomatic gifts. The only trace of Aegeans survived nowadays is a pair of feet with typical Aegean footwear.</td>
</tr>
<tr>
<td>Useramun (TT 131) at Sheikh Abd el-Qurna</td>
<td>Aegeans in the upper register (the Isles in the Midsts of the Great Green included) offer gifts to the deceased who receives the donations on behalf of his ruler. The Aegeans carry precious metal vases and theriomorphic rhyta or statuettes. Garments: breechcloth with codpiece and backflap supported by a broad belt.</td>
</tr>
<tr>
<td>Mencheperreseneb (TT 86) at Sheikh Abd el-Qurna</td>
<td>Aegeans in the upper register are shown carrying valuables. The ceremonial event depicted is the New Year's festival. One of the chiefs in the head of the procession is identified as 'Keftiu'. Other figures combine Aegean and Syro-Palestinian elements in their physique, garments and items. Women and children appear in the end of this procession. Garments: richly embroidered kilt wrapped around the waist.</td>
</tr>
<tr>
<td>Rekhmire (TT 100) at Sheikh Abd el-Qurna</td>
<td>Keftiu and people from the 'Isles in the Midst of the Great Green' are portrayed in the two upper registers. The Aegeans carry metal vessels, jewellery and minerals. Garments: Phase One: breechcloth with codpiece and backflap supported by a broad belt. Phase Two: richly embroidered kilt wrapped around the waist.</td>
</tr>
<tr>
<td>Amenemhab (TT 85) at Sheikh Abd el-Qurna</td>
<td>The text attached to the procession mentions the chiefs of the Keftiu but the porters are of Syro-Palestinian physiognomy. Garments: kilts.</td>
</tr>
<tr>
<td>Amenmose (TT 42) at Sheikh Abd el-Qurna</td>
<td>Apart from porters bearing prestige items, horses and chariots are depicted. Porters bear a mixed Aegean and Syrian character. Garments: The Aegean hybrid figures wear blue kilts and may hold a sword or a knife.</td>
</tr>
</tbody>
</table>
Table 55: Diagram of artefacts unearthed in Egypt
Table 56: Diagram of artefacts unearthed in the Aegean
### Table 57: Mechanisms of transference of goods and commodities between the Aegean and Egypt

<table>
<thead>
<tr>
<th>Mechanisms</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Common means of commercial freight transport.</strong> Via water, i.e. ships, via beasts of burden, on wheels or on foot</td>
<td>As the production of foreigners in foreign lands (effectively these goods are not taken to foreign lands, but produced there. However, the producers of these products may have moved there)</td>
</tr>
<tr>
<td><strong>Market / trade and exchange of mercantile nature (undertaken by the 'state' or freelancers)</strong></td>
<td>Exchange of goods passing from place to place without particular purpose or design</td>
</tr>
<tr>
<td><strong>Bulk goods exchange, staple goods, raw materials (undertaken by the 'state' or freelancers)</strong></td>
<td>Via travelling professionals (mariners, soldiers, craftsmen, merchants, entrepreneurs, physicians, interpreters, fortune-seekers and fortune hunters, explorers, political / diplomatic / trade missions, royal correspondents, constantly travelling minorities, etc.)</td>
</tr>
<tr>
<td><strong>Prestige goods exchange (undertaken by the 'state' or freelancers)</strong></td>
<td>Establishment of Aegeans in Egypt or vice versa (?)</td>
</tr>
<tr>
<td><strong>Trade of products of high profitability and prestige (undertaken by the 'state' or freelancers)</strong></td>
<td>Aegeans visiting Egypt and vice versa</td>
</tr>
<tr>
<td><strong>Hand-to-hand (directly) or via intermediaries (indirectly) (undertaken by the 'state' or freelancers)</strong></td>
<td>Via robbers and theft / via piracy</td>
</tr>
<tr>
<td><strong>As tax, contribution, tribute and exchanged wealth ('state' related)</strong></td>
<td>Via administration (goods serving administrative purposes such as seals)</td>
</tr>
<tr>
<td><strong>Diplomatic gifts / greeting gifts / reciprocal exchange</strong></td>
<td>As souvenirs</td>
</tr>
<tr>
<td><strong>Via warfare / booty / expeditions</strong></td>
<td>Exchange of commodities as 'currency' / barter</td>
</tr>
<tr>
<td><strong>Via migration</strong></td>
<td>As containers of products / 'labels' of products (vessels, seals, etc.)</td>
</tr>
<tr>
<td><strong>Via colonialism</strong></td>
<td>As trophies and awards</td>
</tr>
<tr>
<td><strong>Via working hands / employees travelling abroad</strong></td>
<td>To secure alliances and agreements / as treaty trade</td>
</tr>
<tr>
<td><strong>Via diplomatic and transcultural marriages / as dowry</strong></td>
<td>As pledges and deposits</td>
</tr>
<tr>
<td><strong>As wages / payment for services to one's state or 'employee'</strong></td>
<td>As items associated with particular symbolism and use, which accompany the transference of culture (e.g. Keftiu beans)</td>
</tr>
</tbody>
</table>
Table 58: Mechanisms of transference of culture, knowledge, technology and ideas between the Aegean and Egypt

<table>
<thead>
<tr>
<th>Transference of culture, knowledge, technology and ideas between the Aegean and Egypt (and how trends spread)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Culture, knowledge, technology and ideas accompanying imported/exported items (e.g. textiles, pottery, seals, etc. / see previous table for how goods move)</td>
</tr>
<tr>
<td>Via war / expeditions / conquest of foreign lands</td>
</tr>
<tr>
<td>Via migration / colonialism / travelling communities / settlement of foreigners in a community (Aegeans in Egypt and vice versa?)</td>
</tr>
<tr>
<td>Via diplomatic marriages</td>
</tr>
<tr>
<td>Via networking / social relationship</td>
</tr>
<tr>
<td>Via specific events that take place in foreign lands (e.g. religious festivals, athletic events, etc.)</td>
</tr>
<tr>
<td>Via political / diplomatic relations, alliances and brotherhoods</td>
</tr>
<tr>
<td>Via travelling professionals (mariners, soldiers, craftsmen, merchants, entrepreneurs, physicians, interpreters, fortune-seekers and fortune hunters, robbers, pirates, explorers, political / diplomatic / trade missions, royal correspondents, constantly travelling minorities, slaves, foreign wives, etc.)</td>
</tr>
<tr>
<td>Via 'travelling' music, dance, other forms of entertainment</td>
</tr>
<tr>
<td>Via royal / diplomatic correspondence</td>
</tr>
<tr>
<td>Via travelling myths, folk stories, oral tradition, quack remedies and native intelligence, superstitions, prejudice, agnosticism.</td>
</tr>
<tr>
<td>Via trade / market / trends of the market</td>
</tr>
</tbody>
</table>
Table 59: Aegean - Egyptian world systemic roles: c. 2000-1800 BC

<table>
<thead>
<tr>
<th>Region</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Crete</td>
<td>Core within the Aegean. Marginal to Egypt.</td>
</tr>
<tr>
<td>Aegean Islands</td>
<td>Marginal to Crete (but Kastri was peripheral to Crete). Marginal to Egypt</td>
</tr>
<tr>
<td>Greek Mainland</td>
<td>Marginal to Crete. Marginal to Egypt.</td>
</tr>
<tr>
<td>Cyprus</td>
<td>Initially marginal but towards the end of this period (semi-)peripheral to Crete.</td>
</tr>
<tr>
<td></td>
<td>(Semi)peripheral to Egypt.</td>
</tr>
<tr>
<td>The Levant</td>
<td>Marginal to (semi-)peripheral to Crete and (semi-)peripheral to Egypt (depending on time and location).</td>
</tr>
<tr>
<td>Egypt</td>
<td>Core within the EM world system.</td>
</tr>
<tr>
<td>C- E and A-E relations</td>
<td>Indirect</td>
</tr>
</tbody>
</table>
### Table 60: Aegean - Egyptian world systemic roles: c. 1800-1600 BC

<table>
<thead>
<tr>
<th>Region</th>
<th>Role Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Crete</td>
<td>Core within the Aegean. Marginal to peripheral to Lower Egypt and mostly marginal to Upper Egypt. Marginal to Abydos.</td>
</tr>
<tr>
<td>Aegean Islands</td>
<td>Initially peripheral and later, some islands (e.g. Thera, Keos) semi-peripheral to Crete. Peripheral to the Mainland. Mostly marginal to Egypt. Some islands (e.g. Thera, Rhodes) were in contact with Egypt via Crete.</td>
</tr>
<tr>
<td>Greek Mainland</td>
<td>Peripheral to Crete. Mostly marginal to Egypt.</td>
</tr>
<tr>
<td>Cyprus</td>
<td>Peripheral to Crete. Semi-peripheral to Lower Egypt. Marginal to peripheral to Upper Egypt.</td>
</tr>
<tr>
<td>The Levant</td>
<td>Peripheral to semi-peripheral to Crete. and peripheral to semi-peripheral to Egypt (depending on time and location)</td>
</tr>
<tr>
<td>Egypt</td>
<td>Core within the EM world system.</td>
</tr>
<tr>
<td>C- E and A-E relations</td>
<td>Indirect</td>
</tr>
<tr>
<td>Who was who: 1600-1500 BC</td>
<td></td>
</tr>
<tr>
<td>---------------------------</td>
<td></td>
</tr>
<tr>
<td><strong>Crete</strong></td>
<td></td>
</tr>
<tr>
<td>Core within the Aegean</td>
<td></td>
</tr>
<tr>
<td>Peripheral with a tendency to become semi-peripheral to primarily Lower and secondarily Upper Egypt.</td>
<td></td>
</tr>
<tr>
<td><strong>Aegean Islands</strong></td>
<td></td>
</tr>
<tr>
<td>Peripheral to semi-peripheral to Crete and the Mainland</td>
<td></td>
</tr>
<tr>
<td>Peripheral to Egypt, via Crete and the Mainland</td>
<td></td>
</tr>
<tr>
<td><strong>Greek Mainland</strong></td>
<td></td>
</tr>
<tr>
<td>Peripheral to semi-peripheral to Crete</td>
<td></td>
</tr>
<tr>
<td>Peripheral to Egypt</td>
<td></td>
</tr>
<tr>
<td><strong>Cyprus</strong></td>
<td></td>
</tr>
<tr>
<td>Peripheral to Crete</td>
<td></td>
</tr>
<tr>
<td>Semi-peripheral to Lower Egypt</td>
<td></td>
</tr>
<tr>
<td>Peripheral to Upper Egypt</td>
<td></td>
</tr>
<tr>
<td><strong>The Levant</strong></td>
<td></td>
</tr>
<tr>
<td>Peripheral to Crete</td>
<td></td>
</tr>
<tr>
<td>Semi-peripheral to Egypt</td>
<td></td>
</tr>
<tr>
<td><strong>Egypt</strong></td>
<td></td>
</tr>
<tr>
<td>Core within the EM world system</td>
<td></td>
</tr>
<tr>
<td><strong>C- E and A-E relations</strong></td>
<td></td>
</tr>
<tr>
<td>(Direct and) indirect</td>
<td></td>
</tr>
</tbody>
</table>
**Table 61b:** Aegean - Egyptian world systemic roles: c. 1500-1400 BC

<table>
<thead>
<tr>
<th>Who was who:1500-1400 BC</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Crete</strong></td>
</tr>
<tr>
<td>Core within the Aegean</td>
</tr>
<tr>
<td>Semi-peripheral to Egypt</td>
</tr>
<tr>
<td><strong>Aegean Islands</strong></td>
</tr>
<tr>
<td>Semi-peripheral to Crete</td>
</tr>
<tr>
<td>Peripheral to Egypt</td>
</tr>
<tr>
<td><strong>Greek Mainland</strong></td>
</tr>
<tr>
<td>Semi-peripheral to Crete, with a tendency to become the new core within the Aegean</td>
</tr>
<tr>
<td>Peripheral to Egypt, with a tendency to become semi-peripheral to Egypt</td>
</tr>
<tr>
<td><strong>Cyprus</strong></td>
</tr>
<tr>
<td>Peripheral to Crete</td>
</tr>
<tr>
<td>Semi-peripheral to Egypt</td>
</tr>
<tr>
<td><strong>The Levant</strong></td>
</tr>
<tr>
<td>Peripheral to Crete</td>
</tr>
<tr>
<td>Semi-peripheral to Egypt</td>
</tr>
<tr>
<td><strong>Egypt</strong></td>
</tr>
<tr>
<td>Core / hegemony within the EM world system</td>
</tr>
<tr>
<td><strong>C- E and A-E relations</strong></td>
</tr>
<tr>
<td>Direct and indirect</td>
</tr>
</tbody>
</table>
Table 62: Possible definitions of the term Keftiu (and its variations)

<table>
<thead>
<tr>
<th>Ethnic identity: possible scenarios to define the ethnonym 'Keftiu'</th>
</tr>
</thead>
<tbody>
<tr>
<td>- Individuals who inhabit the land named 'Keftiu', and whose ancestors also inhabited the same land (i.e. native Keftiuans).</td>
</tr>
<tr>
<td>- Invaders settled in the 'Keftiu' land (i.e. invaders Keftiu / Keftiuans by naturalisation).</td>
</tr>
<tr>
<td>- Foreign Individuals settled peacefully in the 'Keftiu' land (i.e. Keftiu immigrants / Keftiuans by naturalisation).</td>
</tr>
<tr>
<td>- Native or naturalised Keftiuans who have departed from the 'Keftiu' land in order to settle in a foreign land may still be called 'Keftiu' in their new environment (Keftiu emigrants).</td>
</tr>
<tr>
<td>- 'Keftiu' may be the name of a settlement established by native or naturalised Keftiuans in a foreign land, with the purpose of acknowledging their country of origin. In other words, there may be more than one 'Keftiu' lands, the inhabitants of which are all called 'Keftiu' / Keftiuans.</td>
</tr>
<tr>
<td>- A product / idea originating from the 'Keftiu' land or simulating the Keftiu style (determinative will specify this).</td>
</tr>
<tr>
<td>- The 'Keftiu' language (determinative will specify this).</td>
</tr>
<tr>
<td>- The 'Keftiu' ships, anchoring in the land of the Keftiu (and not necessarily originating from the Keftiu land) (determinative will specify this).</td>
</tr>
<tr>
<td>- Foreigners associated with the Keftiu (e.g. conducting trade with the Keftiu, visiting a foreign region on behalf of the Keftiu, speakers / interpreters / scribes of the language of the Keftiu (determinative may specify this).</td>
</tr>
<tr>
<td>- An individual bearing Keftiu characteristics or dressed in the Keftiu fashion.</td>
</tr>
<tr>
<td>- Anyone who follows the Keftiu cult, culture and tradition.</td>
</tr>
<tr>
<td>- Anyone departed from the Keftiu land, who visits a foreign land, may be called 'Keftiu', regardless of his / her ethnic background, origin, itinerary.</td>
</tr>
<tr>
<td>- Keftiu may define a lifestyle (similarly to the 'Gypsies' &lt; Egyptians, regardless their nationality).</td>
</tr>
<tr>
<td>- Any member of a Keftiu alliance; any ally of the Keftiu, when the Keftiu play a key role in this alliance.</td>
</tr>
</tbody>
</table>
**Table 63:** Suggested date for the frescoes at Tell el-Daba, Kabri, Qatna and Alalakh

<table>
<thead>
<tr>
<th>Region</th>
<th>Date</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tell el-Dab'a</td>
<td>Early reign of Thutmose III (Bietak et al. 2007)</td>
<td>Date moved from the Late Hyksos to the Thutmoside Period ~ problematic</td>
</tr>
<tr>
<td>Qatna</td>
<td>Sometime from the sixteenth to the fourteenth century BC (Niemeier and Niemeier 2002)</td>
<td>Date depends on the preferred chronological scheme (high / low)</td>
</tr>
<tr>
<td>Alalakh</td>
<td>Reign of Yarim-Lim (c 1710-1650 BC) (Yasur-Landau and Cline 2009)</td>
<td>A <em>terminus post quem</em> between 1628 BC (middle chronology) and 1564 BC (low chronology)</td>
</tr>
<tr>
<td>Kabri</td>
<td>Late Seventeenth century BC (Cline et al. 2011)</td>
<td>Roughly contemporary to the Alalakh frescoes</td>
</tr>
</tbody>
</table>
MAPS

NB: The captions are placed above each map
Map Ib: Map of the Bronze Age Eastern Mediterranean and the Near East (B)
Map II: Map of Bronze Age Central and Eastern Mediterranean

(Drawn by the author after http://www.swartzentrover.com/cotor/Bible/Bible/Bible%20Atlas/018.jpg -last accessed 01 June 2011- and Shaw 2003 (ed)). For practical reasons the map includes locations that flourished later in time, such as Naucratis)
Map III: Map of Bronze Age Greece (Crete is excluded; Map drawn by the author after Hood 1978)
Map IV: Map of Bronze Age Crete (Map drawn by the author after Phillips 2008)
Map V: Map of the island of Thera, after-eruption (drawn by the author after http://www.lib.utexas.edu/maps/historical/santorin_island_1848.jpg, last accessed 01 June 2011)
Map VII: Akrotiri, Thera (drawn by the author after http://www.santorini-culture.gr/content/map_of_Akrotiri.GIF, last accessed: June 2011)
Map VIII: Aegean ↔ Egyptian trade and contact routes, with wind directions (map source as in map II, wind directions by http://www.weatheronline.co.uk, last accessed 01 June 2011)
Map VIX (two-parted): Maps of Upper (right) and Lower (left) Egypt (after Shaw 2003 (ed.))
**Map X:** Minoan / Aegean(-ising) frescoes outside the Aegean, and the depicted Aegeans in Thebes (source: see map II)
Map XI (three pages: map and key): General map of Tell el-Dab'a (drawn by the author after Irene Fostner-Müller 2009: map in page 16 / the original map was produced by Michael Weiss with graphic adaptation by Nicola Math. The brief notes for this key are from http://www.auaris.at/html/index_en.html: the official Tell el-Dab'a website)
Key of map XI, including further remarks

1) Triangles in black squares identify the major archaeological features.
2) The area in the large square is discussed in the main corpus of the thesis – this is the area associated with the Minoan frescoes.
3) Anchors identify the ports

Area H (Ezbet Helmi) (this area is thoroughly discussed in this thesis and only the basic information is provided here)
(Late Hyksos Period to Amenophis II)

• The Late Hyksos Period, Ph. D/2 (Str. c/2-f)
• The Beginning of the New Kingdom, ph. D/1 (str. c/1)
• The Palace District of the Thutmoside Period, Ph. C3-2 (Str. D-c)
• The Minoan Wall-Paintings
• A hiatus, the fortress of Horemheb and Ramesside cemeteries

Area FI
• The orthogonal planned settlement of the early Middle Kingdom (F/I, stratum e / Amenemhat I, founder of the 12th Dynasty); Palace of the early 13th Dynasty; two phases of houses. Only partly excavated.
• The Cemeteries of F/I, Strata d/2 (H) and d/1 (G/4), late 12th Dynasty and early 13th Dynasty (two cemeteries). Cemetery of stratum d/2 is of typical Egyptian funerary architecture. Stratum d/1 includes a palatial structure, of Egyptian architecture, the garden of which was used as a cemetery. Burials of donkeys, goats and sheep. The tombs mostly belonged to men of high-social class. Minoan Kamara ware was found in the area of the palace gardens. The famous Tell el-Dab'a pendant of dogs or lions comes from tomb p/17-Nr. 14 in the south of the cemetery. The grave goods of stratum D/1 are of both Egyptian and Levantine character.
• The settlement and tombs of the strata c–a/1 of area F/I – stratum c. Large building of the late 12th dynasty. Palace area and cemetery of the early 13th dynasty. Early tombs of the Totenhäuser type, final phase of the cemetery contains pit burials (=epidemic?).
• The settlement and tombs of the strata c–a/1 of area F/I – stratum b. Middle 13th dynasty. MB II culture.
• The settlement and the tombs of the strata c–a/1 of area F/I – stratum a. Very early Hyksos period. Temple and offering pits. Shaft graves of a later period.

Area FII
• A large palatial complex (8000 sqm) of the middle Hyksos Period (Stratum D/3) containing an offering deposit, numerous rooms and courtyards, gardens, etc. Older phases of this complex also contained a bathroom and bread ovens. The Hyksos complex was abandoned in the 15th dynasty. It is nowadays identified as the palace district of king Khyan, due to several seal impressions discovered in the compound. Excavation in area FII took place between 2006 and 2008.
Area A/IV (for an overview of this area see Philip 2006: 26-27)

- Domestic area of the late 12th (str. H, I) and 13th Dynasty (str. G, F)
- 13th Dynasty cemetery (Str. F – E/1), Syro-Palestinian influenced
- basin (sacred lake) (dates from Early Hyksos to Late Period)
- A cylinder seal of Amenemhat III

Area A/II (for an overview of this area see Philip 2006: 26-27)

- Buildings and cemeteries, including a major temple. Pairs of donkeys were found in front of the temple. A second temple (II), a "Breithaustempel" of old Near Eastern tradition was situated western of the first temple. This area covers chronologically the late 12th Dynasty until the end of the Second Intermediate Period (str. H to early D/2).

Area A/V (for an overview of this area see Philip 2006: 26-27)

The area covers from str. E/2 to B
- Domestic area with limited tombs. Mature Hyksos period (str. E/1-D/2)
- Settlement structures of the Ramesside Period, including gardens (str. B).

Area R/I ('Ezbet Rushdi')

The area is likely to date from the Heracleopolitan Foundation to at least str. D/2.
- temple and settlement of the Middle Kingdom (R/I, str. a – f). The temple was dedicated to the 'ka' of Amenemhet I (12th Dynasty). The date of the establishment of the settlement is problematic, but it is possible that this happened before the second half of the reign of Senwosret I. From the mid 13th Dynasty stratum came the only evidence of the name of Avaris from the site.

Southern Suburban quarters (latest geophysical results)

- June 2011: according to the Supreme Council of Antiquities news reports (EEF forum news items 20,21 June 2010), this area seems to include the following: urban planning with streets, houses, buildings that might be palaces, cemeteries, temples, a port, one of the Nile river tributaries that passed through the city, as well as two islands. Neighbourhoods and living quarters are also seen. Pits can also be distinguished, but their function is not yet clear. For updates and preliminary reports for seasons from 2011 onwards (e.g. R/III, 'Palace of Khyan', Peru-nefer port, etc.) see chapter Six.
Map XII: Map of Avaris (Tell el-Dab'a): some important archaeological features for the study of the frescoes (drawn by the author after Bietak 2007a: 20-22: fig. 12, 13, 15)