

**THE ORYX NOME:
AN EGYPTIAN CULTURAL LANDSCAPE OF THE MIDDLE KINGDOM**

by

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ABSTRACT

This thesis aims to provide a methodology for approaching and interpreting ancient Egyptian cultural landscapes using the Oryx Nome as its case study. By bringing together textual, archaeological and geoarchaeological evidence a more holistic impression of the region during the Middle Kingdom is suggested. Considerations of how natural forms and processes within the environment contribute towards the formation of cultural landscapes as well as how the local inhabitants continued to redevelop their surroundings, create a sense of geographic identity and enculture their landscapes are also discussed. Ultimately, this thesis proposes that with a greater knowledge of an area's ecological past archaeologists are better equipped to prioritise physical investigation of broad areas of the Egyptian floodplain in order to unlock the stories of those that once inhabited it.

To Moira
without whom I would never have started

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No thesis really begins during the scheduled period of study, rather it is a seed planted there by some unwitting individual some time – perhaps years – earlier than the student even begins the research. In my case, this person was Moira Nolan, a lady to whom I owe much gratitude. My study of Ancient Egypt began, not at university, but years prior to this at local courses run by Moira in my home town of Withernsea, East Yorkshire. These evening classes gave me the grounding and inspiration I needed to consider taking an undergraduate degree in Ancient History in 2006. The seeds that Moira planted have since blossomed into an orchard of degrees and life experiences – and I would never have achieved so much without this early encouragement. Needless to say, though I will anyway, my family have always been there for me and have pushed me (often uphill) all the way here since an even earlier time. My little sister, Emma, deserves special mention. She is one of the most courageous people I know, who tackles life's challenges every day and constantly motivates me to do my best in anything I turn my mind to – thank you Emma.

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DEFINITIONS

Though the core of the thesis presented here focuses on the history of Ancient Egypt, undoubtedly some terms will be utilised from different disciplines, namely geography and geoarchaeology. In order to assist readers, the following definitions may be helpful. These are often taken from associated dictionaries or reference works, though occasionally have been amended for use in this study.

Abrasion: A form of erosion caused by, in this case, the scraping of particles transported by water on the river bank. This caused the river to abrade its banks and contributes to the steady migration of the channel.

Aeolian: Relating to the action of wind. More specifically, Aeolian processes refer to formations and processes created by wind, such as the transport of sediment (known as loess) or the action of wind erosion.

Aggradation: The deposition of sediment by a river or water channel. This includes the depositing of fertile silts during the inundation period.

Anabranching/anastamosing: The branching of a water channel creating multiple courses. A river with multiple channels can also be described as ‘braided’.

Avulsion: The term ‘avulsion’ is used in analyses of river variability to describe a process of river channel change that can be of relatively short-duration, in some instances this could be over the course of just one inundation in which one channel of a river will be abandoned (Brown 1997: 28). The flow of water will naturally choose the deepest, fastest or most accessible route and if two or more channels are aggrading and eroding simultaneously one channel may become more suitable causing the river to rapidly migrate to the single channel (Morozova 2005: 407). As the waters recede following the flood period the waters may erode the faster channel whilst depositing silt in the slower flowing channel; this process influences which channel is maintained during the low water period. Subsequent deposition, vegetation or human construction can cause the dry channel to become seasonal, until eventually it becomes perennially dry (Graham 2010: 126).¹

Cultural landscape: ‘a cultural landscape is the successive conversion over time of the material habitat of a sedentary human society responding with growing strength and variety to the challenges of nature, the society’s own needs and desires, and the historical circumstances of different regions in different times’ (Conzen 2001: 3086).

Ecology: The relationship between humans and their surroundings, including other animals within this vicinity.

Ecumene: Inhabited land that is utilised by humans with daily frequency (Descola 2013: 33).

¹ Graham refers to avulsions as river ‘jumps’ whereby a shallower channel can silt up causing the river to move to the deeper channel (2010: 126).

El Niño-Southern Oscillation (ENSO): An irregular change in the regular heating of the equatorial Pacific Ocean affecting other tropical regions such as the Indian Ocean. Changes in heat (El Niño and La Niña) cause differing surface pressure over the Pacific which in turn forces air to cool and fall over the Ethiopian Highlands and Indian Ocean. This cool air subsequently reduces rainfall over the basins of the Blue Nile and Atbara causing lower Nile floods in Egypt further downstream (Eltahir and Wang 1996: 489; Camberlin 2009: 322).

Environment: The natural world that is inhabited by flora and fauna, including mankind.

Exotic river: An exotic river is one that flows through desert areas and can only survive from upstream supplies of water. The Nile flows for almost 2700km through the Sahara desert without any major input from tributaries (Woodward et al. 2007: 261, 273). Other examples of exotic rivers include the Indus and the Colorado Rivers.

Hinterland: 'The sphere of influence of any settlement (or of an establishment within a settlement): it is the area for which the settlement is the trading nexus.' (Johnston 2000: 337). See also definitions proposed by Van Cleef (1941) and Jones (1955: 44).

Hod: A defined area of fields in the floodplain with boundaries marked by drains, ditches, paths or other semi-permanent features. The arrangement of hod-boundaries or minor field markers can reveal ancient water channels and levees (Lutley and Bunbury 2008: 3-4).

Intertropical Convergence Zone (ITCZ): The ITCZ is the name given to the area where the northeast and southeast trade winds meet around the equator creating an area of low pressure causing heavy precipitation. The zone is situated in the south during the northern hemisphere's winter period, but moves north during summer to rest across the central Nile basin. The precipitation caused by this relocation causes the Ethiopian monsoon season and contributes to the annual inundation downstream in Egypt (Camberlin 2009: 308).

Kom: Also known as 'tells', these are mounds made up of previous settlement remains and domestic waste. They are often around 1-3m higher than the surrounding floodplain in Egypt (Hillier et al 2006: 3). This height makes them suitable locations for modern habitation or construction of cemeteries and industrial areas.

Landscape: 'a composition of man-made or man-modified spaces to serve as infrastructure or background for our collective existence' (Lefkowitz Horowitz 1997: 305). See section 2.1.1.

Nummilitic: The term given to a limestone rock-type that is made up of numerous fossil nummulites (Klemm and Klemm 2008: 68-85).

Tell: See kom above.

ABBREVIATIONS USED IN THE TEXT

BH I –	Newberry, P. E. 1893a. <i>Beni Hasan: Part I</i> . London.
BH II –	Newberry, P. E. 1893b. <i>Beni Hasan: Part II</i> . London.
[BH 12] –	Beni Hasan, rock-cut tomb 12 (and other numbers)
<i>El Bersheh</i> I –	Newberry, P. E. 1895. <i>El Bersheh: Part I. The Tomb of Tehuti-Hetep</i> . London.
<i>El Bersheh</i> II –	Griffith, F. L. and Newberry, P.E. 1896. <i>El Bersheh: Part II</i> . London.
LD –	Lepsius, K. R. 1849-59. <i>Denkmäler aus Aegypten und Aethiopien</i> . Leipzig.
<i>Meir</i> I –	Blackman, A. M. 1914. <i>The Rock Tombs of Meir: Part I</i> . London.
<i>Meir</i> II –	Blackman, A. M. 1915. <i>The Rock Tombs of Meir: Part II</i> . London.
<i>Meir</i> III –	Blackman, A. M. 1915. <i>The Rock Tombs of Meir: Part III</i> . London.
<i>Meir</i> IV –	Blackman, A. M. 1924. <i>The Rock Tombs of Meir: Part IV</i> . London.
<i>Meir</i> V –	Blackman, A. M., and Apted, M. R. 1953. <i>The Rock Tombs of Meir: Part V</i> . London.
<i>Meir</i> VI –	Blackman, A. M., and Apted, M. R. 1953. <i>The Rock Tombs of Meir: Part VI</i> . London.
PM IV –	Porter, B. and Moss, R. L. B. 1934. <i>Topographical Bibliography of Ancient Egyptian Hieroglyphic Texts, Reliefs, and Paintings IV. Lower and Middle Egypt</i> . Oxford.
UE16 –	Upper Egyptian nome 16 (and other numbers)
WB –	Erman, A. and Grapow, H., 1926-1961 <i>Wörterbuch der ägyptischen Sprache</i> , 5 vols. Berlin.

CHAPTER 1

INTRODUCTION

For thousands of years the land of Egypt has captivated and awed visitors and travellers, but it is only in more recent decades that relationships between inhabitants and the environment have been fully taken into consideration. The Egyptian Nile Valley and surrounding deserts comprise one of the most unique environments on the globe and natural processes continue to play a significant role in the daily lives of those living within it. This ecological relationship is what this thesis seeks to explore, in order to understand how ancient Egyptians and their natural environment affected one another's development, and the subsequent culmination in a distinctive cultural landscape.

Much previous Egyptological research has focussed on the temporal context of sites in Egypt and how various components conform within chronological frameworks.¹ Whilst there is no doubt that this approach is essential for understanding the development of areas over time, it has resulted in a lack of attention on their spatial relationships. A study investigating elements of time and space in order to explore the ways in which ancient Egyptians interacted with their local environment, their ecumene, and each other can provide a more holistic view of one cultural landscape during a particular period of history.²

Approaches toward the study of landscape in the discipline of Egyptology have changed over recent years. This is exemplified by a growing literature focusing

¹ The site of Beni Hasan and its chronological development, for example, has formed the focus of many studies such as: Brunner 1936; Schenkel 1962; Spanel 1984; Willems 1988; Seidlmayer 1990; Hölzl 1992; Orel 1993; Shedid 1994; Kamrin 1999; Rabehl 2006; Brovarski 2010; Kanawati 2010; and Bommas 2012a. See section 3.4.3 for an in-depth discussion.

² Previous attempts at studying ancient Egyptian society have largely focused on elite sources and history (Trigger et al. 1983; Richards 2005; Baines 2013). By incorporating analyses of space and environment within social studies a better appreciation of the everyday concerns of ancient Egyptian communities can be more accurately reflected, thus contributing toward a 'bottom-up' approach.

on the natural environment and cultural development of Ancient Egypt within its geographical context. Surveys of Delta areas such as those by Wilson and Grigoropoulos (2009), Trampier (2014) and Spencer (2016) have now been complemented with similar considerations for the valley and oases. However, many of these studies focus on known archaeological sites and the connections with their hinterlands, only occasionally having the scope to also discuss the daily lives of those inhabiting such areas as evinced through textual/visual evidence and material culture. In effect, this creates an artificial dichotomy between archaeology and other domains of Egyptology such as philology and art history. A combination of all the fields can provide a clearer and more accurate understanding of the ecological relationship between ancient Egyptians and their surroundings. Approaches utilising more than just archaeology or philology have already been demonstrated by Bunbury and Jeffreys (2011) which successfully constructed a more holistic impression of the landscape around Memphis during the Middle Kingdom.³

The above suggestion, to combine various types of evidence relating to the ancient Egyptian construction of cultural landscapes, is the approach utilised in this thesis. By taking the Oryx Nome (c. 2100-1700 BC), a region defined in ancient Egyptian sources (see section 3.3), it is hoped that the results from comparative research can be combined to provide some further considerations regarding ancient Egyptian social interaction with, and within, their cultural landscape. From the outset this thesis aims to complement similar methodologies that have been utilised in Egyptology so as to provoke further research, criticism of approach and results, and ultimately to provide a better appreciation of the ecological relationship between the Nile Valley and its ancient inhabitants.

³ A similar method was also employed by Bunbury and Malouta in the area of Hermopolis and Antinoopolis (2012).

1.1 The current situation

Since beginning this thesis in 2011 the political landscape of Egypt has changed immeasurably, due to the January 25th 2011 revolution, resulting in rapid changes in the physical (both natural and cultural) landscape too. Encroachment of urban areas into archaeological sites has increased, with places like Heliopolis threatened by housing developments and rubbish dumps (Ashmawy and Raue 2015).⁴ Simultaneously, looting has damaged many sites as well as objects, both intrinsically and contextually, for example at the Middle Egypt site of El-Hibeh (Redmount 2014).⁵ However, many of these concerns are not new phenomena. Similar destruction of archaeological sites has occurred across Egypt for millennia – from the royal tomb robberies of the late New Kingdom (Peet 1930) to the damage caused by mass tourism in the late-nineteenth and twentieth centuries (Edwards 1877: 353; Helmy and Cooper 2002: 516-518). In fact the landscape of Egypt, as a medium in which action and events take place, has continually developed over at least the last six millennia of human occupation becoming a palimpsest of previous natural and human activity. Many sites in the Egyptian Nile Valley already display tell-tale signs of urban or agricultural encroachment or continued habitation since the Pharaonic Period. A satellite image survey highlights more than 50 koms (settlement mounds) in the region for study of this thesis (see chapter 3) most of which exhibit modern occupation or use covering more ancient remains. Many areas of exposed archaeological remains also show evidence of more recent looting, although again it is

⁴ Encroachment on urban areas across the floodplain has actually been increasing substantially since the construction of the Aswan High Dam. Parcak has recorded a 10-200% increase in urban areas over the last 30 years alone (2008: 65). Despite this ongoing expansion, Parcak also estimates that only 1% of floodplain sites have been located by archaeologists (2008: 65).

⁵ Similar stories in international news can be read about other sites, such as El-Bersha where tombs were vandalised in 2015 (<http://www.dayralbarsha.com/node/268>: 25th March 2016). Museums have also been threatened and looted, such as the Mallawi Museum in 2013 (<http://www.unesco.org/new/en/culture/themes/illicit-traffic-of-cultural-property/emergency-actions/egypt/warning-looting-of-the-malawi-national-museum/>: 25th March 2016).

clear that this is not a purely recent phenomenon as Kessler noted already in his study of the region between Samalut and Mallawi when he discovered evidence of monumental remains known only to the local villagers (Kessler 1981: 180). Likewise, destruction by *sebakhin* diggers throughout recent centuries had already caused immeasurable damage to archaeological sites. The aim here is not to point fingers at those responsible, but rather to consider that the Nile Valley does not exist solely to promote the study of Egyptology but should be viewed as a living environment in which activities and events occur and the continuous (re)development of culture prevails. This development is influenced by political, economic, and historical motivations (among others) and more recent events can be viewed as a part of this ongoing development and the history exhibited by Egypt's landscape – and will continue to display to future generations.

The question of how to analyse sites that are inaccessible for physical examination, often located deep beneath modern urbanism and cemeteries, should be addressed in order for broader areas to be better understood. The vast majority of ancient sites in the floodplain remain occupied and thus do not permit traditional archaeological excavation (Baines 2013: 22; 100% of the koms highlighted in Appendix A are covered in some form of modern construction). Those sites that have been recorded archaeologically permit a comparative approach to settlement and hinterland study and a brief overview of some previous studies will suffice here.

The objective and scientific study of the Egyptian Nile Valley has been a prominent aspect of the discipline of Egyptology since the turn of the nineteenth century following the Napoleonic campaign to document Egypt's monuments. Today the *Description de l'Égypte* still provides an unparalleled cartographical resource for understanding Egypt's landscape prior to dam construction around Aswan during the

twentieth century. Similarly useful, historical writers have described Egypt and its society, including Herodotus (*The Histories*), Strabo (*Geography*), and Al-Maqrizi (*Mawaiz wa al-'itibar bi dhikr al-khitat wa al-'athar, Topographic and Historical Description of Egypt*), all of whom have contributed to modern impressions of Ancient Egypt.

Since the decipherment of hieroglyphs by Champollion in 1822-1824, textual evidence has been used to reconstruct the geography of Ancient Egypt. Utilising Egyptian texts, as well as the classical and medieval writers above, Egyptologists have created a theoretical map of settlements in the Nile Valley. Dictionaries by scholars such as Brugsch (1879) and Gauthier (1925-31), as well as general historical reference works (such as Gardner Wilkinson 1878) have succeeded in constructing an idea of Egypt's rural and urban landscapes that is only now being challenged. Lists of geographical toponyms preserved in Egyptian texts can only betray so much about their function, location, size, and significance. On the other hand, archaeology cannot always give an indication of the narrative history of a site without texts to elucidate names, chronological periods or historical events. Of course, highly focused approaches in specific geographic localities are essential for understanding individual elements within the wider environment, for example the work of Hamza, Habachi and Bietak at Tell el-Daba (ancient Avaris) in locating ancient Pi-Ramesses at Qantir and not at San el-Hagar (Hamza 1930: 66; Habachi (1955) 2001: 117-119; Bietak 1981: 283).

Urbanism has naturally formed the focus for landscape analysis in Egyptology, particularly following Wilson's infamous statement in 1960 that Egypt was 'a civilization without cities' (1960: 124).⁶ Urban landscapes in general are better

⁶ For a discussion regarding Wilson's remarks see Redford (1997: 210-211) or Snape (2014: 20).

represented in Egyptian art and also feature in numerous texts, particularly from the New Kingdom (Ragazzoli 2008). However, what does or does not constitute a ‘city’ bears little relevance if it is not possible to understand the ways in which the ancient Egyptians interacted with their urban environment.⁷ Goelet, among others, has demonstrated that the ancient Egyptians distinguished settlements by function rather than size (1999: 75). The urban elements of the Oryx Nome, constituting the settlements mentioned in texts from the tombs of Beni Hasan and other sources, provide substantial evidence for reconstructing the cultural landscape of the region during the Middle Kingdom and are discussed in chapter 5. However, by focusing on urban localities alone, the wider hinterland and spatial relationships can again be overlooked.

Butzer’s study of the ecology of the Nile Valley remains one of the most in-depth analyses of the topic (1976). His contribution of geographic and ecological data has greatly influenced much of this thesis. Hassan, building on the work of Butzer, utilised studies of urbanism in the early development of the Nile Valley to better understand population distribution and its relationship to natural phenomena (1981; 1993; 1997). Many archaeologists since Butzer have recognized the significant role that the natural environment played in the daily lives of those inhabiting the Nile floodplain. This is clearly demonstrated by recent survey work in the valley, particularly by the Theban Harbours and Waterscapes Survey (Bunbury et al. 2008; Graham et al. 2012), the Survey of Memphis (Bunbury and Jeffreys 2011), and in Nubia (Macklin and Woodward 1998; Spencer et al. 2014).

It is unfortunate that many studies retain a focus on urban landscapes, reinforcing the city’s status at the peak of civilizational development, without

⁷ Bietak has previously considered the ‘town problem’ from an archaeological perspective and remains a valuable source of information (1979).

encouraging a more in-depth analysis of settlement plus hinterland as an urban unit. Two recent studies of this kind are Snape's *Complete Cities of Ancient Egypt* (2014) and Moeller's *The Archaeology of Urbanism in Ancient Egypt: From the Predynastic Period to the End of the Middle Kingdom* (2016).⁸ The scale adopted for these studies is at the highest level – taking in the entire Nile Valley to provide an introduction to urban sites and their function or significance within their respective regions. This is similar in many ways to the *Cultural Atlas of Ancient Egypt* (2000) by Baines and Malek where an equally high scale of study was utilised to provide an overview of the monuments and sites of Egypt and Nubia. Scales of analysis provide different lenses in which to tackle the enormous topic of landscape development. Those working at the macro-level (such as Snape, Moeller, and Baines and Malek) are able to consider the wider relationships occurring throughout the regions of Egypt, while those working at the meso-level may reduce their analysis to understanding just one region of Egypt and how interactions occurred within this area; though broader national and political influences may be considered, the interest is concentrated on the regional level. Finally at the lowest level, the micro-level, considerations of a single building may be emphasised, and how the building was used, navigated, or inhabited will form the focus of study in this instance (Butzer 1984: 924-933; Müller 2015). These scales, briefly introduced here, pervade almost all aspects of space analysis – either explicitly or implicitly – and are quite interchangeable in their use, see table 1.1.

Macro	Meso	Micro
World	Nation	Region
Nation	Region	Settlement
Region	Settlement	Building
Settlement	Building	Room

Table 1.1: *Interchangeable scales for studying space*

⁸ The latter of these studies is much more in-depth than the first, though it was published too late to be used in constructing the methodology for this thesis.

Endruweit's work on private elite houses at Amarna and the use of rooms or features within them focused on a micro-level of analysis (1988). Subsequent work by Spence considered the relationship between rooms within the homes and the control evidenced by their construction and design (2010). For this approach Spence moved between meso (the building) and micro (the room) levels in her analysis thus enriching the understanding of how the different spaces influenced interactions within them. In Kemp's study of the historical development of the Egyptian state he demonstrated all levels of analysis focusing on specific case studies in order to reveal a historical narrative spanning all of Pharaonic history (2006). By utilising different evidence, including textual, archaeological, material, and geographic, Kemp succeeded in constructing an impression of Egypt as a dynamic and changing environment with various agents at work experiencing the events occurring throughout political history.

A more recent study by Baines takes this focus on experience even further. In *High Culture and Experience in Ancient Egypt* (2013) Baines explicitly states the complications of understanding 'landscapes' in the Nile Valley and as such he chooses not to define the term (2013: 22).⁹ By doing this the study is difficult to compare with more traditional approaches to landscape in Egyptology, but Baines' focus on experience within environment brings in evidence which contributes more helpfully to a phenomenological approach which will be discussed in chapter 2. His emphasis on the experience of higher classes of Egyptian society excludes a large element of what this thesis hopes to contribute – but will possibly become a complementary analysis of social study.

⁹ Baines' use of the term 'landscape' may not be appropriate for this study, though a definition is provided in section 2.1.

It is clear from previous studies of landscape, urbanism and society in Ancient Egypt that the topic is not small. It encompasses the entire canvas for studying all of the ancient culture preserved in the northern reaches of the Nile Valley and its surrounding hinterland. Thus any attempt to analyse it from a macro-level is understandably superficial and therefore restrictive for in-depth research. This thesis will utilise the earlier studies and the different scales discussed above in order to address the three considerations outlined for the Oryx Nome during the Middle Kingdom.

1.2 The ancient Egyptian mind-set

It would be futile to attempt any form of landscape analysis without first considering the ways that the ancient Egyptians understood the world around them and account for some limitations based on these observations. Complications for this kind of study arise quickly, not least because the ancient Egyptians had no preserved word that can be directly translated as ‘landscape’ in the sense that this study uses it (Richards 1999: 88; see also section 2.1.1). Instead they preferred to differentiate areas of land in relation to others – such as floodplain/desert, Egypt/foreign-land, Upper Egypt/Lower Egypt. Hannig and Vomberg provide a useful range of terms used in Egyptian sources to describe landscape and the features within it (1998: 279-288). Many of these terms have common determinatives indicating the type of feature or location within the environment. A further study of these terms in relation to a broad definition for landscape, such as that proposed in section 2.1.1, would be useful for understanding the ancient Egyptian approaches to their surroundings and would help studies move beyond the wider term of landscape when approaching the Nile Valley.

A number of ancient Egyptian administrative lists have been preserved in the archaeological record. These often relate to taxes or temple holdings and personnel, though many preserve toponyms existing within the Nile Valley, or those officials and workers responsible for performing certain tasks.¹⁰ However, these documents should never be seen as recording the entirety of those elements that they seem to list. Weeks (1979) and Goelet (1999) have both demonstrated the ways in which the Egyptians selected items, without aiming for completeness but instead being very selective in recording what was only relevant to their records. For example, the list of temples given in Papyrus Harris in no way reflects the only temples in these areas but instead just those that were relevant to the list of personnel sent there (Grandet 1994-99). However, the Onomasticon of Amenemope expressly states to list ‘all things that exist’ and therefore it may be assumed that each of its categories reflect the full extent of those groups. This includes a list of settlements along the River Nile as well as lists of natural elements (sky, earth, and water), titles, occupations, buildings, cereals, drinks, and cuts of meat (Gardiner 1947: 37; Nims 1950). The text is introduced with the following statement (Gardiner 1947: Ch.II, 2):

‘Beginning of the teaching for clearing the mind, for instruction of the ignorant and for learning all things that exist: What Ptah created, what Thoth copied down, heaven with its affairs, earth and what is in it, what the mountains belch forth, what is watered by the flood, all things upon which Re has shone, all that is grown on the back of earth, recorded by the scribe of the sacred books in the House of Life, Amenemope, Son of Amenemope.’

Although this text dates to the 20th to 22nd Dynasty it is probable that those settlements recorded were founded earlier and thus can inform studies of previous


¹⁰ The Wilbour Papyrus is an example of a text recording land and field workers. In this case, as an official document, the purpose was not to record all land, but just that land relevant to the document in questions (Antoine 2011).

periods.¹¹ The Onomasticon refers to the settlements as a list of *dmi.t*, a word often translated as village or port (WB V: 456). Both Goelet and Redford's analyses of the different terms used in Egyptian for settlements have shown that this term more likely refers to ports or quays located along the banks of the River Nile that in some instances were connected (via roadways or canals) to accompanying *niw.t* (Redford 1997; Goelet 1999; see also Hannig and Vomberg 1998: 287 for a list of terms). Garcia on the other hand has proposed that the term *dmi.t* developed over time and by the New Kingdom came to simply mean village (2011). This, he argues, was due to the quays becoming centres of economic and trading importance through the Middle Kingdom (Garcia 2011: 3). However, understanding both *dmi.t* and *niw.t* to mean 'town' or 'village' would make it impossible to distinguish between them and the different functions that they may have controlled. Recognizing the distinguishing functional and geographic character of the *dmi.t* allows for a detailed analysis of the physical environment around the urban centres and a reconstruction of their changes (or perception) over time, as well as assisting in locating those named in the Onomasticon. Though a thorough reanalysis of ancient terms for urban areas cannot be included in this thesis, this topic is in need of further investigation in order to clarify the functions of these settlements and how the Egyptians categorized the world in which they inhabited.

1.3 The parameters of this study

As introduced above, the parameters of this study are defined by ancient evidence and boundaries rather than modern geographical distinctions. The 16th nome of Upper

¹¹ Gardiner notes that few examples of the name Amenemope predate the reign of Ramesses III. Based on this, and various linguistic characteristics he dated the text to the late 20th to 22nd Dynasty (1947: 24).

Egypt has been chosen as the case study for this thesis. The term ‘nome’ comes from the Greek ‘nomos’ but corresponds roughly to the ancient Egyptian *sp3.t* () which were districts dividing the Nile Valley (Snape 2014: 61).¹² Their borders and numbers changed frequently through dynastic history and so this thesis will focus specifically on the Middle Kingdom. This covers the main period of use of the necropolis of Beni Hasan which is the most well-known archaeological site in the region of study. The conspicuous lack of urban remains in this region dated to the Middle Kingdom, yet the breadth of scholarship that has been written about the area, have prompted the selection of the 16th nome of Upper Egypt for this study. The archaeological and textual evidence from mortuary contexts provides a starting point from which to address the three points outlined for this thesis and directs a theoretical approach. By developing a methodology (chapter 2) for exploring human interaction with their environment and the subsequent (re)development of cultural landscapes, it is possible that a better understanding of the Oryx Nome during the Middle Kingdom will become apparent and areas can be highlighted for future investigation.

The chronological development of the Oryx Nome has formed the focus of many studies, many of which have concentrated on the burials of officials at Beni Hasan. Following this scholarship, this thesis therefore covers the late 11th Dynasty through to the early 13th Dynasty (c. 2050- 1800 BC). Although chronology is not the focus for this study, some remarks will be made in chapter 3 in order to assist with the geographical analysis of the region and its monuments. A methodological approach is outlined in chapter 2, drawing primarily on ideas proposed by US geographers

¹² The Egyptian word *sepat* can occasionally be replaced by just its determinative, Gardiner sign-list N24. See section 3.1 for a broader discussion regarding Egyptian nomes and their development through time.

relating to the development of cultural landscapes,¹³ as well as some more experiential theories suggested with relation to space and place,¹⁴ and also phenomenology.¹⁵ This also draws on the author's personal experience of geography and the impact that nature can have over the development of sedentary populations.¹⁶

While a general introduction to the region of study has already been given above, chapter 3 will give an in-depth account of the region and previous scholarship focusing on its various monuments. This serves as a general background for understanding how to approach the natural and cultural development of the area. This chapter will adopt the same restrictions discussed above, elucidating the Egyptian perception of this region and further clarifying its boundaries. What will become evident is that many previous studies have concentrated on the chronological development of the Beni Hasan necropolis while not always taking notice of its regional context or related hinterland.¹⁷ Those studies that have focused on the physical development of the necropolis have rarely considered the broader environment that this activity occurred within. The multi-disciplinary approach suggested for this thesis will bring these studies into greater focus and permit a

¹³ Most notably, this study has utilised the works of Carl Sauer (Leighly 1963) and John Brinkerhoff Jackson (Lefkowitz 1997).

¹⁴ In exploring the relationship between people, space and place, the work of Yi-Fu Tuan has been instrumental (1977).

¹⁵ Christopher Tilley has led the discussion of phenomenological approaches towards Neolithic sites in Britain (1994; 2004; 2010). Subsequent discussion, and development of a phenomenological methodology has been promoted by Morter and Robb (1998), and Hamilton and Whitehouse (2006).

¹⁶ My own experience of growing up on a rapidly eroding coastline in the east of England, witnessing the impact that forces of nature had on the local population, inspired my educational training in geography and geology at college. This interest and curiosity for how people adapt to those situations and how they influence their lives continued into my Egyptological training, and as such my research has always focused on understanding the daily lives of the 'everyday' ancient Egyptians, their concerns and constraints – a topic that much of this thesis now focuses on.

¹⁷ Dr Scott Bucking of DePaul University is currently exploring evidence of Coptic habitation in the tombs of Beni Hasan and the surrounding area. Traces of *dipinti* can be found in the Upper Necropolis tombs, as well as around the Wadi Batn el-Baqara and Speos Artemidos. The aim of this research was presented at the 66th Annual Meeting of the American Research Center in Egypt, Houston, Texas, USA – 24th April 2015. Bucking and his team aim to reconstruct a regional perspective of activity around Beni Hasan during the early Coptic Period – similar in its approach to the aims of this thesis.

contextualisation of them within the regional framework and historical development of the Oryx Nome during the Middle Kingdom.

It is not until chapter 4 that considerations of the landscape can be addressed, when the methodology suggested in chapter 2 will be enacted. This section will build the natural background or canvas of the cultural landscape prior to the subsequent utilisation of it by the ancient Egyptians themselves. It will be demonstrated that the Egyptian Nile Valley is a complex and dynamic environment to which the inhabitants of the floodplain had to adapt, and in many ways achieve some control over. However, the continuing impact of natural processes over Egyptian culture cannot be underestimated. This chapter introduces some of those processes and the changes that may have occurred within the natural environment of the Oryx Nome over the past four millennia.

As mentioned above (section 1.1), urban remains form the focus for much archaeological work in Egypt today, a fortunate change from the initial emphasis given to temples and tombs (criticism of which can already be found in Butzer 1976: 58 and Bietak 1979: 97). Unfortunately, though understandably, this thesis is restricted to those sites that are accessible to archaeologists and still retains a certain predilection for temples within settlements or those areas/sites that are more spectacular, uncommon or recognizable.¹⁸ Thus the dwellings of the majority of ancient Egyptians still remain largely unexplored and unknown. This is because many of them lived within the rural hinterland around urban centres where they had ease of

¹⁸ Well-explored areas include the sites such as El-Amarna, Deir el-Medina, Memphis, Tell el-Dab'a, and the Nubian fortresses. However, these should not be seen as 'typical' urban areas, and in many ways cannot be representative of the majority of the ancient Egyptian population's habitat. Remote sensing methods provide coverage of larger areas of the modern landscape, revealing elements hidden beneath cultivation and desert sands. In the case of settlement mounds in the Egyptian Nile Valley, this method is restricted by the urban areas still located there, thus reducing visibility of buried features. These mounds are recognisable within satellite images and so this thesis has not utilised multi-spectral imaging techniques as promoted by Parcak (2009).

access to resources and livelihoods. Many modern towns and buildings are undoubtedly located atop the mounds of these ancient sites as these locations have remained suitable points for habitation in the Nile floodplain until the modern era.¹⁹ Chapter 5 introduces four settlements mentioned in the tombs of Beni Hasan in greater detail, providing a selected catalogue of texts that assist in locating them during the Middle Kingdom. Previous attempts to locate these settlements will also be analysed and their validity considered alongside the evidence presented.

With a reconstruction of the natural and built environment of the Oryx Nome provided through chapters 4 and 5, the next task is to introduce the agents of culture – the population. Building on work by Kamrin (1999), Rabehl (2006), and Seidlmayer (2007), this chapter takes the scenes preserved in the tombs of Beni Hasan and considers their role within the reconstructed landscape. Some of these tombs contain repeating motifs – some of which mirror those at other necropolises in the region – which may indicate regional styles or interaction among the builders. A reanalysis of some of the most well-known scenes permits a reinterpretation of their significance within the decorative programme.

To conclude a topic as ambitious as that proposed in this thesis is difficult, particularly when the subjective interpretation of landscapes is unavoidable. Any theory proposed in this study would require testing in the field to confirm its validity (as recommended by Parcak for all remote sensing activities, 2009: 5). Tentative concluding remarks are offered in chapter 7 to summarise the main arguments presented throughout the study and to consider again the three points outlined above. Some recommendations for future investigation will also be suggested. It will be demonstrated that through a reanalysis of previous scholarship and the archaeological

¹⁹ As mentioned previously, following the construction of the Aswan High Dam urbanism has spread into lower areas of the floodplain, changing the dynamics of human activity within the Nile Valley (Parcak 2008: 65).

evidence alongside a reappraisal of geoarchaeological information further exploration within the Nile Valley can be better equipped in order to investigate the region and the complexities of its cultural landscape.

1.3.1 Limitations

Of course, the methodology proposed in chapter 2 of this thesis will not be suitable for all areas of Egypt, nor for every time period or community. As outlined above, this study will focus on one particular region of Middle Egypt during the Middle Kingdom and thus, while aspects of it may be relevant or comparative to others environments, a critical approach should be used when appropriating it outside of these parameters.

Complex landscapes such as the Nile Delta²⁰ or the western desert oases²¹ will require different methodologies that reflect the nature of their development, maintenance, and subsequent cultural history. Some areas of the Nile Valley floodplain may also require alternative approaches – such as areas with known numerous Nile branches such as Memphis at the apex of the Nile Delta.²² More arid and less fertile stretches of the Nile south of the first cataract into Nubia would also require substantial reanalysis based on their differing environment and alternative political history.²³

As this thesis relies primarily on evidence visible prior to the construction of the Aswan High Dam, during a time when occupation of the Nile floodplain was more

²⁰ Substantial work on understanding the development of the Nile Delta in relation to the substantial tell sites preserved there has been conducted by the Egypt Exploration Society's Delta Survey (www.deltasurvey.ees.ac.uk). Similarly, work by the Austrian Archaeological Institute in Cairo under Irene Forstner-Müller is still uncovering the lost waterways around Tell el-Dab'a (2014).

²¹ Current work by Bunbury and Ikram in the Kharga Oasis is beginning to highlight a period of lake formation during the Pharaonic and Greco-Roman Periods (2014).

²² Jeffreys' comments regarding the implications of Nile movement in the area of the Delta apex gives some indication of the significance of recent discoveries in Nile Valley geoarchaeology (2008).

²³ Work by Macklin and Woodward in the area around Kawa in the Northern Dongola Reach indicates that substantial changes in the cultivation have occurred over the past 4 millennia impacting directly on choices of settlement location (Macklin and Woodward 1998).

similar to that of the Pharaonic Period than can be seen today, in the field analysis has limited use. Therefore much of this study utilises satellite imagery, maps, textual, and artistic evidence recorded since the Napoleonic survey of Egypt. Any conclusions made from this analysis clearly require fieldwork in order to corroborate the findings before they can be confirmed. In many ways this study constitutes preliminary research prior to a physical investigation and is able to assist in guiding the scale and direction of the work that should be undertaken.²⁴

1.4 Thesis statement

The aim of this thesis is to present a holistic approach towards the study of a cultural landscape in Ancient Egypt. This differs from traditional studies which frequently consider places purely within chronological frameworks, often disconnected from their physical setting.

In order to achieve this, the following will be demonstrated:

1. How natural features (forms and processes) contribute to the formation and subsequent (re)development of a cultural landscape.
2. How the inhabitants of a cultural landscape continue to (re)interpret their surroundings based on personal ideologies and history.
3. How knowledge of the natural and cultural features (forms and processes) of an area can inform future archaeological survey and excavation.

²⁴ During the writing of this thesis further excavation and survey work at Zawiet Sultan now aims to answer some of those questions, such as understanding the relationship between the extant monuments at the site and the urban community living there during the early Middle Kingdom. This work is being undertaken by Dr Richard Bussmann of University College London and began work during autumn 2015. It is hoped that further survey work around this area of Middle Egypt will help to reconstruct a more detailed picture of the natural and cultural landscape during the Middle Kingdom.

CHAPTER 2 METHODOLOGY

Landscape as a topic is frequently discussed in Egyptology, whether through the exploration of urban sites (for examples see Kemp 2006, and Bietak 1979), or the investigation of artistic representations in tomb scenes (such as Weeks 1972; Kessler 1987a/b; A. Baines 1995; Kamrin 1999 and Kanawati 2001). However, a systematic methodology for approaching landscapes has not yet been presented. This has so far resulted in autonomous studies that rarely take account of wider environmental considerations. Experiencing landscape in a modern sense does not automatically instil an appreciation of movement through space or conscious interaction with natural and cultural forms and so to understand how the ancient Egyptians lived within the Nile Valley a cohesive methodology should be employed. The methodology outlined here takes account of some approaches in landscape studies and attempts to bridge the gap between analyses of natural environments and man-made constructions visible in the archaeology of Egypt.

2.1 What is 'landscape'?

‘In part because the concept of landscape is both relatively modern and much contested, I abstain from defining it’, J. Baines 2013: 22.

The concept of ‘landscape’ can easily be misunderstood or oversimplified until it no longer becomes a medium of formative study. The reason for this is the popularity and flexibility of the word across many disciplines.¹ However, this often results in meanings being taken across subjects even when inapplicable within the topic of

¹ An analysis of the use of the term ‘landscape’ in different disciplines is provided by Förster et al. (2012) including geography, history, archaeology, ecology and art.

study. It is this complication, and the modernity of the term ‘landscape’ that prompted Baines to omit a definition of landscape in his analysis (2013: 22). Although the omitting of a definition in his study causes some issues when attempting to compare approaches in the topic, it is understandable. As discussed above, the ancient Egyptians themselves had no word that directly translates as ‘landscape’, and thus any attempt to consider their approaches to it must first take account of this issue (Richards 1999: 88). The brief overview offered here aims to address the various meanings of ‘landscape’ and present a definition utilised in this study. The discussion will also include some approaches to ‘landscape’ studies that prove useful when reconstructing cultural landscapes in Ancient Egypt. It will also outline the landscape types that will be considered in this study and how these relate to each other in order to give a more coherent reconstruction of life in Ancient Egypt’s Nilotic setting.

2.1.1 Definition and approach

The ‘landscape’ that forms the focus for this thesis is used in its noun form and in definitions can be taken to include and mean very different and specific things.² The word ‘landscape’ was introduced into the English language from Germanic speaking groups from such words as ‘*landschap*’ (Dutch) or ‘*Landschaft*’ (German), and was first used as a technical term for painters and artists (Förster et al. 2012: 169). In its etymology it is limited to discussions regarding inland areas, as opposed to the term ‘seascape’, which is limited to areas over water, although it is possible to include rivers and water features within a ‘landscape’ (Förster et al. 2012: 169). Therefore a ‘landscape’ can be a picture portraying this inland area or form the background of a

² ‘Landscape’ can also be used as a verb to describe the alteration of the physical environment, usually for aesthetic reasons. Whilst the ancient Egyptians certainly altered aspects of their surroundings it is often difficult to pinpoint changes made for aesthetic reasons, particularly in the region of study here. For this reason ‘landscaping’ will not feature within this study.

portrait. The ‘landscape’ is therefore the product of one artist’s impression or experience of their vista, and in some cases could be entirely fictional. These scenes are often concerned with aesthetic design within the work of art and are not always a realistic representation of the view itself (Meinig 1979: 46; Lefkowitz Horowitz 1997: 300; for a discussion of landscape in art history see Descola 2013: 57-63). Different cultural groups consider aesthetics within landscape subjectively and it is therefore difficult to study ancient landscapes empirically by focusing on simply the visual artistic evidence of them. Discussion of geographically disparate groups and their relationships with natural environments has been discussed by Descola (2013) and other French anthropologists, ethnographers and geographers, such as Berque (2013). Contributions by Descola have aided the definition of ‘landscape’ and in-particular highlighted the superficial and modern distinction between nature and culture (2013: xviii). Though this thesis focuses on theories suggested by US-based scholars, and thus separates nature and culture, consideration of Descola’s theories is clear in the methodology proposed below.

The Oxford English Dictionary clarifies that a ‘landscape’ can be a scene taken ‘at a glance from one point of view’. Thus, implicitly, the choice of depiction can only be restricted to one moment in time and could be assumed therefore to be a snapshot of an environment and its accompanying features and characteristics.³ One particular notion entails that ‘landscape’ is ‘the object of one’s gaze’ or ‘a stretch of country as seen from a single point’ (Meinig 1979: 33; Förster et al. 2012: 169). In this sense the environment is an unchangeable object, but also requires the interaction of an observer to interpret the ‘landscape’ in order to construct it - in this way

³ Although a landscape could be seen as a ‘snapshot’, it should not be taken in the same sense as a photograph. A digital image is a more accurate recording of the scene it portrays – providing that the photographer has not staged the shot. However, the photographer may specifically choose to capture a particular scene for aesthetic reasons and thus it cannot be used as an accurate reflection of an entire environment – though it is a constructed ‘landscape’ nonetheless.

‘landscape’ cannot exist without human involvement (Bender 1993: 1; Whyte 2002: 7-9; Stewart and Strathern 2003: 1). Brinckerhoff Jackson’s study of the etymology of ‘landscape’ breaks the word down into its two separate components; ‘land’ and ‘scape’ (Lefkowitz Horowitz 1997: 302-303). He concluded that ‘land’ had always correlated to a ‘defined space, one with boundaries, though not necessarily one with fences or walls’ (Lefkowitz Horowitz 1997: 303). ‘Scape’ on the other hand corresponds to a ‘composition of similar objects’. In this way Brinckerhoff Jackson determined that ‘landscape’ was:

‘a composition of man-made or man-modified spaces⁴ to serve as infrastructure or background for our collective existence’ (Lefkowitz Horowitz 1997: 305).

Therefore ‘landscape’ is made up of many components, and these varying layers require organised ‘reading’ in order to understand the makeup and significance of the vista they represent (Whyte 2002: 13). Brinckerhoff Jackson’s overview of ‘landscape’ and his ecological focus on human interaction with a natural space will be used throughout this thesis and in constructing the methodological approach promoted below. From here, the term ‘landscape’ will be utilised with the broad definition provided.

Meinig suggested that each landscape was open to a number of interpretations by different observers, due to the inherent interests within the mind of the individual – what he termed ‘the beholding eye’ (Meinig 1979: 33). This principal underlies the understanding that no landscape can exist without human perception and after generations of change no natural environment remains either, as noted by Baines: ‘For millennia, the physical environment of Egypt has been so altered by human activity that no ‘natural’ world exists there’ (2013: 43). This is of course true, as even the

⁴ ‘Space’ is also a contentious term that requires consideration in its usage – an analysis of ‘space’ and its relation to ‘place’ is covered in section 2.3 below.

natural world requires human perception, and so Meinig outlined ten ways in which a person may ‘behold’ the landscape, and these observations are as applicable to ancient landscapes as they are to modern ones. Table 1 outlines the ten layers proposed by Meinig.

Layer: The observer views landscape as...	The observer...
...aesthetic	...focuses on what they consider to be ‘aesthetic’ in their vista, i.e. ‘scenery’.
...nature	...focuses on the natural elements of the landscape and is ‘tempted in his mind’s eye to remove man from the scene’.
...habitat	...views the earth as the ‘Home of Man’, and in this considers ‘the harmony between man and nature’.
...artefact	...sees man as ‘ecologically dominant’, and would find it difficult to consider anywhere as ‘pristine nature’. The landscape has therefore become an ‘artefact’ of man’s making.
...system	...views the landscape as a series of interrelated and interdependent processes, such as the water cycle.
...problem	...focuses on concerns in the landscape such as erosion, flooding, deforestation, rapid urbanisation.
...wealth	...only sees the economic value of the landscape and its features. Such as the economic value of richer neighbourhoods, or proximity to amenities. ⁵
...ideology	...is concerned with how the landscape ‘represents a translation of philosophy into tangible features’ and would believe that for any change in the landscape to occur the ideas that created it must first be dealt with.
...history	...views landscape as a process of accumulating historical data. ⁶
...place	...sees landscape as ‘locality’ and focuses efforts on understanding the individual within that setting.

*Table 2.1: Meinig’s layers of viewing landscape: ‘the beholding eye’.
Adapted from Meinig 1979: 34-47.*

⁵ Richards states, ‘As archaeologists studying the rise of the state or social organization, we more commonly assess the location and construction of these landscapes through the lens of political or economic motivation, giving limited consideration to the inherent qualities of the natural setting.’ (1999: 84). It is the other layers of Meinig’s proposal that can help to address this failing in Egyptological scholarship and to assist in understanding how the ancient Egyptians interacted with and perceived their surroundings.

⁶ Meinig’s historical lens may be better termed ‘political’ and refer more specifically to how the state influences perception of landscape. However, in Ancient Egypt there would have been considerable overlap between the layers of history and ideology as much of the natural world related to a world view placing the Pharaoh and divinities within the tangible landscape (see the discussion of *Dwt Hr* in section 7.2.1 below).

While these layers provide an outline of how landscapes could be approached they are certainly not exhaustive and it is also possible, and in fact beneficial, to overlap or combine the layers to provide a more holistic view of the area of study. Many of these layers will be utilised throughout this thesis in an effort to understand the environment from the perspective of the ancient Egyptians rather than from a modern perception, though it is almost impossible to speculate which layers were more relevant to Egypt's early inhabitants. Therefore, rather than taking each layer in turn, it is more efficient to understand them as views of a scene comprised of primarily two main components: nature and culture.

2.2 Natural environments

The natural environment forms the stage on which all of the physical expression of culture can exist. It thus also forms the backdrop for human interaction and experience that develops the landscape over time imbuing it with cultural meaning. The environment is not static after its creation but includes those processes and systems that continue regardless of human involvement, such as flooding, sunrise/sunset, wind, flora, fauna, and climate (Leighly 1963: 337; Meinig 1979: 34-35, 37-39). While human activity can influence and impact on these elements, many processes will continue despite these measures. Though human settlement does not feature prominently in the 'nature' layer of Meinig (1979: 34-35), it is important to note that any kind of human interpretation of nature also relies on the perception of the viewer and is therefore not divorced from the definition of 'landscape' used in this thesis. A variety of geographical, geological and geoarchaeological data is used in chapter 4 of this study to reconstruct the dynamic natural environment of the Nile Valley during the early Middle Kingdom. This serves to introduce the cultural forms

presented in chapters 5 and 6 and provides new considerations regarding the daily concerns of those inhabiting the region during this period.

2.3 *Cultural Landscapes*

For the purposes of this thesis ‘culture’ is flexibly defined as ‘way of life’ (Winchester et al. 2003: 3)⁷ and the land that this culture inhabits ultimately becomes a relic of its symbiotic, ecological relationship with the natural environment. As culture is considered a ‘group phenomenon’ it cannot act without human influence as a medium through which to act, and therefore cultural landscapes must be constructed by human beings; landscapes are subsequently a ‘shared reality’ (Lefkowitz Horowitz 1997: 302; Winchester et al 2003: 3).

This system has previously been seen as having two possible agents; the first being nature, and the second being culture itself (Winchester et al. 2003: 11-22). Earlier scholarship and travel writing promoted that natural processes influenced the development of culture and subsequently the landscape that accommodates it. In this way ‘humans were conditioned by their environment’ and often some elements of veneration of natural features can be found (Winchester et al. 2003: 11).⁸ The cultural landscape would then be a record of the culture coping with natural pressures. In reference to the position of agent that nature is given in this definition, this theory is known as ‘environmental determinism’. An example of how this concept can be expressed is in *The Histories* by Herodotus. He wrote of the lands south of Egypt that ‘it is so hot there that the people are black’ (Book II, 22) thus intending that the natural environment determined the culture, lifestyles, and skin colour of those that

⁷ This definition is also used by Winchester et al. (2003) when discussing ‘cultural landscapes’ as it provides the flexibility that is necessary for understanding any culture’s landscape, rather than one in particular.

⁸ Veneration of natural features is certainly a feature of Egyptian culture, for example it is possible to find textual references to tree groves, mountains and lakes with religious importance.

inhabited the area.⁹ Lewthwaite, in attempting to elucidate the complex definitions of environmental determinism (and its derivatives) summarized this approach as ‘the concept that the environment controls the course of human action’ (1966: 3). This notion was particularly popular within colonialist regimes that sought to justify racial differences and subjugation due to differing climatic conditions (Livingstone 2000: 213).

During the twentieth century Carl Sauer of the Berkeley School of Cultural Geography formulated new ways of viewing landscape development that denounced the previously popular concept of environmental determinism (Duncan 2000: 45). Sauer believed that the role of individual agency should be given a greater prominence in the construction and development of landscapes. He therefore promoted culture as the dominant factor giving it the ability to change natural processes to its benefit and in time superimposing human elements over the environment (Leighly 1963: 343). This process has since been termed ‘cultural determinism’ (Winchester et al. 2003: 19). In this scenario the natural environment is simply a canvas for cultural expression as cultures are ‘deposited’ onto it (Winchester et al. 2003: 15). However, criticism of this theory has focused on the ‘superorganic conception of culture’, where culture exists above the views and agency of the individual (Winchester et al. 2003: 19) – in essence allowing all cultures to be simplified into one same human machine or system removing the role of society, and also the individual.

Returning to Lewthwaite’s study of definitions relating to natural and cultural interaction in landscapes, it is possible to compromise between the two theories of environmental determinism and cultural determinism. This has been termed

⁹ A similar tradition of environmental conditioning of peoples is presented by Al-Maqrizi (Bouriant 1895: 35).

‘environmental possibilism’, restoring the role of agent to society and individuals (Lewthwaite 1966: 23; Winchester et al. 2003: 15). Lewthwaite describes this as: ‘The concept that the physical environment is passive, and that man is the active agent at liberty to choose between a wide range of environmental possibilities’ (1966: 23).

Throughout these three approaches nature and culture are positioned as conceptual opposites (Cosgrove 2000b: 143). However, they should more correctly be viewed as co-productions developing in parallel to create a single cultural landscape (Cosgrove 2000a: 139; Descola 2013). This co-production is an important element in the methodology employed in this thesis and reflects the continuing impact of nature in the creation of cultural landscapes.

A single definition of cultural landscapes is therefore fraught with conflicting ideas, however an inclusive approach can be promoted for use in this thesis. As Conzen outlines, ‘a cultural landscape is the successive conversion over time of the material habitat of a sedentary human society responding with growing strength and variety to the challenges of nature, the society’s own needs and desires, and the historical circumstances of different regions in different times’ (Conzen 2001: 3086). This description fits within the broad definition of landscape discussed above and allows for the necessary reciprocal relationship between culture, nature and society and provides the scope within which to discuss various landscape types that together make up cultural landscapes.

2.3.1 Political Landscapes

‘To leave the political unmoored from the landscape, to allow it to float across society and culture as a conceptual ghost ship simultaneously anywhere and nowhere is to obscure the practical relations of authority that constitute the civil sphere’ A. Smith 2003: 16

In Smith's analysis of political landscapes he outlines the reasons why political histories must not be detached from the physical environment. Smith illustrates how the political landscape can be difficult to define due to its common usage in describing governmental activities at a given time (A. Smith 2003: 7). However, for this work, political landscape should be understood as 'the physical ordering of the created environment by political forces' (A. Smith 2003: 7), that is – the landscape features that are constructed by those in control to draw together the 'imagined civil community' of Ancient Egypt. These forms are created to provoke reactions in the populace that engender identity and communal knowledge (A. Smith 2003: 8). The policies of controlling authorities and administrators leave marks in the archaeology of the landscape and affected the ways in which people approached their locales, and interacted with natural and built forms surrounding them.¹⁰ This in turn would influence the ways in which people travelled through their hinterlands and communicated between social strata and boundaries. In his approach to landscape Smith defines three 'dimensions' for viewing the political sphere; 'spatial experience', 'spatial perception' and 'spatial imagination' (A. Smith 2003: 73-74). The first of these focuses on the movement of people through space, the second includes the symbolic levels of landscape and the 'sensual interaction' of people with their surroundings, finally the third dimension is that which incorporates the imagined geographies of the state. All of these dimensions are visible in historical records from Ancient Egypt and will feature throughout this thesis. The political approach focuses

¹⁰ One example from Ancient Egypt of political ordering of space comes from the boundary stelae erected by Akhenaten at the site of his new capital at Akhetaten. In these texts he states, 'Now within these four stelae, from the eastern mountain to the western mountain, is Akhetaten itself', and repeats that 'I shall not pass beyond it [the stela] ever' (Lichtheim 1976: 48-51). Thus, through these texts Akhenaten constructs the identity of those residing within the boundaries of the stelae creating an urban identity for those living inside these limits.

primarily on Meinig's layers of history and space, and more specifically towards how the political history of the ancient Egyptian state affected the broader society.

This approach permits a more focused view of social interaction through layers of authority and class. The officials and elites within society were able to order the cultural landscape in a way that denoted rank and superiority; a landscape of inclusion and exclusion. This may be visible in the arrangement of the Beni Hasan necropolis which is believed to include the higher levels of social strata in the upper terrace of decorated rock-cut tombs, while those in the shaft tombs constitute their lower officials (Garstang 1907: 98; Seidlmayer 2007: 363).¹¹ This exclusivity within landscape organisation has also been noted by Baines through physical ranking or the intentional isolation of monuments (Baines 2013: 29-30). It is also possible to consider ways in which those within lower strata of society were reactive and thus influenced the higher levels through degrees of interaction and personal agency, in some cases even revolution – a topic more relevant for modern Egypt at this moment.

2.3.2 Space, place, and personal experience

Landscapes form a medium through which social players interact with each other and their surroundings, and thus experience the world around them (Whyte 2002: 7; Stewart and Strathern 2003: 4). The shared and personal understanding of environments is a particularly subjective study that contributes toward the conception of cultural landscapes, but has attracted further attention since Tuan's publication of *Space and Place* 1977. The opening paragraph states (Tuan 1977: 3):

“Space” and “place” are familiar words denoting common experiences. We live in space. There is no space for another building on the lot. The Great

¹¹ Bommas has recently drawn attention to some of the Upper Necropolis rock-cut tombs that are undecorated, proposing that they were likely constructed for local officials and not the nomarchs of the region (2012: 45).

Plains look spacious. Place is security, space is freedom: we are attached to the one and long for the other. There is no place like home. What is home? It is the old homestead, the old neighbourhood, hometown, or motherland. Geographers study places. Planners would like to evoke “a sense of place.” These are unexceptional ways of speaking. Space and place are basic components of the lived world; we take them for granted. When we think about them, however, they may assume unexpected meanings and raise questions we have not thought to ask.’

This statement evokes the scales of studying space which were introduced in section 1.1, and the personal implications this can have in daily lives and constructing social identity (Tilley 1994: 15). One way that societies create identity is by forming ‘place’ from ‘space’ and as Tuan states, ‘what begins as undifferentiated space becomes place as we get to know it better and endow it with value’ (Tuan 1977: 6). Place is therefore reliant on the human perception of it, and the meaning that is attached to it. Once again, the role of the individual/community¹²/society in this approach should be emphasised. The process of urbanism in Egypt itself contributed to this creation of place, and urban forms play a significant role in elite titles and ‘autobiographies’ – see for example the inscriptions of Khnumhotep II at Beni Hasan [BH 3] (Lloyd 1992).

This study considers the ancient Egyptians to have had an especially clear ideology regarding the perception of ‘space’ and ‘place’; the somewhat vague concepts of *ma’at* and *isfet*. *Ma’at*, it is proposed here, constituted ‘place’ – the ordered world, a realm of meaning and cultural familiarity. *Isfet* on the other hand constituted ‘space’ – an area of unknowing, threat and potential chaos. Egyptian ideology necessitated a cultural familiarity with the surrounding environment, engendering a landscape that was understood, known to the population that inhabited it and thus encultured. In a place as dynamic as the Nile Valley this knowledge was something experienced and gained over the course of daily life. It is apparent that

¹² Community can be defined as ‘sets of people who may identify themselves with a place or places in terms of notions of commonality, shared values or solidarity in particular contexts’ (Stewart and Strathern 2003: 4).

when expeditions were launched into foreign or desert areas, spaces of unfamiliarity, efforts were made to neutralise the environment and understand it culturally. Naming natural features and stamping cultural markers onto the landscape – such as rock inscriptions and architectural features – acculturated the area making it *ma'at*, place.¹³ Similarly, the recording of these places in texts has preserved their landscape markers and communicated them to other travellers, and scholars today. The Turin map of the Wadi Hammamat dated to the reign of Ramesses IV, records a route for expeditions to the 'bekhen-stone' quarries (Harrell and Brown: 1992b 86). As well as preserving the locations of natural resources in this particular section of the Wadi, it also records some further details such as the 'Shrine of Amun of the Pure Mountain', and the 'hill where Amun rests' (Harrell and Brown 1992a: 7). In an otherwise alien and unforgiving environment, far removed from the familiarity of the Nile Valley, these cultural markers Egyptianising the area served to formalise a temporary home for the expedition as well as extend the cultural borders of Egypt. The physicality of these markers is unclear. Some, named as shrines or monuments, must have had a physical element, though others such as 'the hill where Amun rests' may only have served as natural markers appropriated for their use. This can be seen at the 'peak' on the Theban westbank and in the wadi mouth of the Umm el-Qaab at Abydos (Richards 1999: 88, 92). Numerous other examples of the (re)appropriation of natural features such as this existed in Ancient Egypt and will be mentioned throughout this thesis, particularly section 6.4. Ultimately, the acculturation of natural features served to establish *ma'at* within the physical landscape and thus engender place from unfamiliar space creating an Egyptian cultural homeland.

¹³ Current research being undertaken by Anna Garnett in the areas of Wadi Mia and Wadi Hellal during the New Kingdom is recovering significant evidence to show the acculturation of 'desertsapces' (Garnett 2013).

As well as considering place and space, other phenomena occurring within daily life can be experienced and affect the ways in which interaction occurs within a landscape. Phenomenology is a more recently proposed method for understanding these instances, according to Tilley (1994: 12):

‘Phenomenology involves the understanding and description of things as they are experienced by a subject. It is about the relationship between Being and being-in-the-World’

A phenomenological approach has, so far, not found its way into Egyptological scholarship¹⁴ although could, if used alongside more traditional archaeological techniques, provide a framework for understanding how individuals personally experienced their environments through the senses of smell, sight, hearing, taste, and feeling. Tilley has been an advocate of this approach since the publication of his *A Phenomenology of Landscape* in 1994. In this he states, ‘spatial experience is not innocent and neutral, but invested with power relating to age, gender, social position and relationships with others’ (1994: 10). Therefore a phenomenological approach may be able to give further information regarding sub-sets of society that might otherwise be overlooked by more traditional approaches. This method understands social interaction within space to be relational, connecting places within the mind and understanding the culturally appropriate ways to behave within them. To phenomenologists landscape is defined as (Tilley 1994: 34):

‘A series of named locales, a set of relational places linked by paths, movements and narratives. It is a ‘natural’ topography perspectively linked to the existential being of the body in societal space.’

The emphasis of this approach is firmly rooted in the individual and perception of their surroundings. While previous approaches may result in a generalised overview for society, a phenomenological method may provide a focused study on the role of

¹⁴ Exceptions to this include Richards (1999), Baines (2013), and Gillam (2015).

the individual within the Egyptian Nile Valley. Unfortunately Tilley believes ‘such a notion of space is undoubtedly complex. There is and can be no clear-cut methodology arising from it to provide a concise guide to empirical research.’ (1994: 11). Criticism arising from a lack of methodology prompted Hamilton and Whitehouse to contribute some thoughts towards a methodology for analysing prehistoric sites in Italy resulting in various records of ‘soundscapes’ relating to activities occurring within the landscape as well as mapping smells and visual ranges (2006: 53). Similar records were made by Morter and Robb at sites in southern Italy which indicates that in Neolithic Europe urban groups interacted within roughly concentric zones around their settlements (1998: 87-88). Table 2.2 indicates the zones in relation to a fixed domestic abode from which individuals travelled and the activities that could be detected in each area.

Zone	Activities
House and environs	Domestic activities
Settlement area	Communal activities
Catchment area (1-3km around settlement)	Subsistence activities
Intervillage zone	Exploitation of raw materials, hunting and gathering
Intersociety areas	Exploitation of exotic resources

Table 2.2: *Concentric zones of activity around a settlement, adapted from Morter and Robb 1998, and Hamilton and Whitehouse 2006.*

While these studies can provide useful comparisons for a similar approach in Egypt, the natural environment of Egypt (a narrow river valley, delta and isolated oases) means that differing results should be expected. Cultural differences in the patterns of burial and settlement organisation would also affect the study. This methodology would require testing in Egypt’s Nile Valley before a more comprehensive phenomenological approach could be applied, but the consideration of personal

experience and creation of social and cultural identity through landscape will be a recurring feature within this thesis.¹⁵

Regional differences in Ancient Egypt are clearly marked, both in terms of localised material culture and differing geographical settings (i.e. delta and valley) which influence cultural practices. To discuss the cultural landscape of the Oryx Nome without some regard for its regional autonomy within the Egyptian political administration would be to generalise for the entirety of the state, which is something this thesis could not hope to cover. However, by outlining these theories and applying them to one area of the Nile Valley, it may be possible to adopt some of these approaches to other studies and in so doing provide a clearer understanding of life ancient Egypt. For this to be better understood, a methodology incorporating aspects of the above research must be proposed.

2.4 Methodological approach

In 1925 Carl Sauer developed a methodology for exploring cultural landscapes and their development (paper reprinted in Leighly 1963). As discussed above, his aim was to move away from the active role that the environment played in determining the characteristics of society living within the landscape and to place greater emphasis on culture as the agent within this scenario. Sauer proposed two systems, the first to explain the development of the natural environment, and the second resulting in the cultural landscape; these can be seen in figures 2.1 and 2.2.

¹⁵ Current research by Dr Robyn Gillam of York University, Toronto is exploring the possibility of using phenomenological approaches in the Egyptian Nile Valley, with a particular emphasis on Middle Egypt. The progress of this research was presented at the 66th Annual Meeting of the American Research Center in Egypt, Houston, Texas, USA – 25th April 2015.

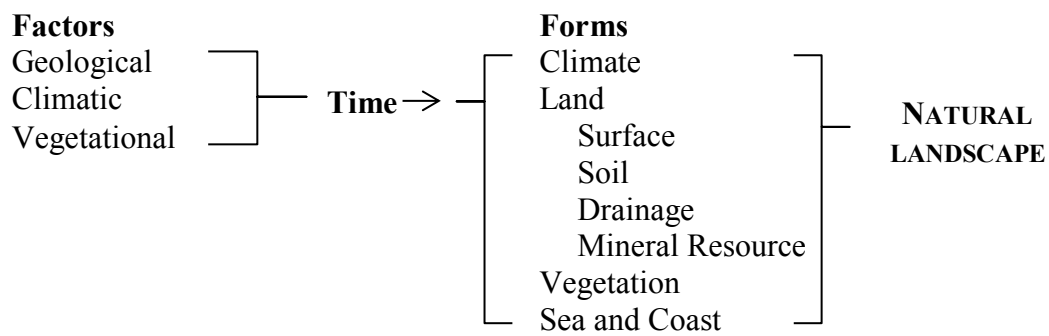


Figure 2.1: *Sauer's morphology of natural landscape*
(adapted from Leighly 1963: 337)

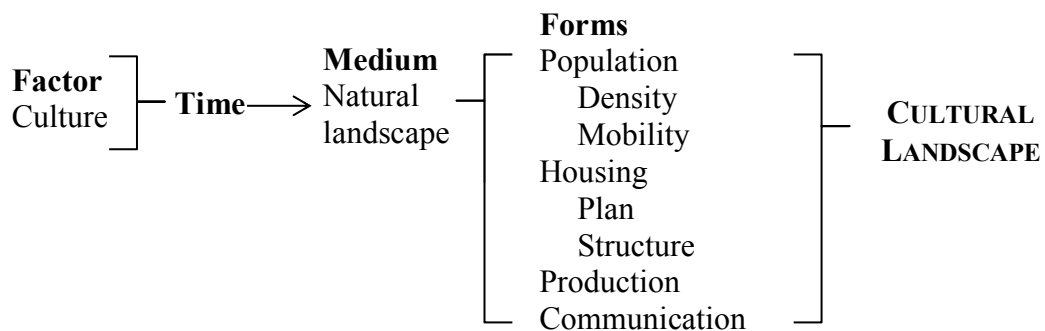


Figure 2.2: *Sauer's morphology of cultural landscape*
(Leighly 1963: 343)

Figure 2.1 illustrates the way in which natural factors/processes occur over time (unspecified) to create various natural forms, thereby producing the 'natural landscape'. As discussed above, the term 'landscape' here is misleading as landscapes are culturally constructed and thus no longer natural in their makeup. The distinction between nature and culture is tenuous and has been shown, by Descola, to be artificial and modern in its conception (2013). Here it would be better to replace 'natural landscape', with 'natural environment' as the meaning is synonymous here. Figure 2.2 on the other hand exemplifies how cultural processes act over time (unspecified) through the medium of the environment (as created in figure 2.1), to produce cultural

forms, thereby creating the ‘cultural landscape’ (Leighly 1963: 343). It is important to note that the list of natural/cultural factors and forms are not exhausted in these diagrams. While both figures provide a number of helpful suggestions for further analysis, they fail to link directly to each other and in so doing fail to reach a degree of inter-reliance which is essential for this study. Instead both landscape types should be viewed as co-products of parallel systems existing cyclically to continue recreating a landscape, see section 2.3 above. They are therefore over-simplified models attempting to represent a number of complex interrelated natural and cultural phenomena, resulting in a somewhat generalised view of cultural landscapes. In Egyptology information about the natural environment of Egypt and how it directly affected the political history of the state is still poorly understood, as noted by Richards (1999: 84). This has changed over more recent years with the work of Bunbury, Jeffreys, Graham, Hillier, and Parcak who all incorporate studies of the natural environment into their discussions of Egyptian cultural and political histories. However, while these studies have, in effect, begun to bring the two systems of Sauer’s morphology together no clear structural approach has so far been promoted for use in the discipline of Egyptology, specifically within the Nile Valley. A clear methodology for understanding the formation and (re)development of sites in Egypt is needed, as the work of Richards has shown for the site of Abydos (1999: 91). Richards proposed that this sacred landscape was initially selected for its natural setting, the meaning of which developed alongside the necropolis over the course of Pharaonic history (1999: 94). This relationship between natural environment and cultural landscape must be better understood and figure 2.3 presents a methodological system that will be used in this thesis.

Figure 2.3 illustrates the morphological system that will be used in this thesis, and the unification of Sauer's two diagrams. By uniting the two diagrams of Sauer, figure 2.3 demonstrates the continuing influence of natural processes over the formation and (re)development of the cultural landscape through the actions and perception of its inhabitants. It acknowledges the fact that the surface of the earth is created through natural processes (called 'factors' by Sauer), while cultural landscapes are created through the intervention of human action. Nothing has been omitted from Sauer's work, other than the element of time. The reason that time is now absent is due to the cyclical character of the system proposed and if the diagram were to be separated back into two separate components then each would continue to function interdependently with the other. It should also be noted that the processes creating the natural environment continue throughout the second half of the diagram and may influence any aspect within the system. The element of time would give the impression that these elements of the model continue chronologically and that the cultural landscape is the final outcome; the proposed methodology removes this aspect and instead suggests a cyclical system independent from prescribed time. In other words, landscapes are never a finished product but a work-in-progress and continue to be redeveloped and reinterpreted – as outlined in the three points that thesis aims to address.¹⁶

The proposal actually represents three coexisting systems and their proposed outcomes. The first cycle is that creating the natural environment, similar to that proposed by Sauer (figure 2.1) but amended into a continual process by the sustained actions of the natural processes which remain constant even in the physical setting of

¹⁶ This redevelopment of landscapes has been noted by Whyte, 'Landscape surfaces produced by the cultural and physical processes of one period influence the activities of later inhabitants so that landscapes are not simply passive creations of human activities, but dynamic, interactive elements in the development of societies' (2002: 14).

today and contribute to ongoing environmental change. The second cycle is also based on Sauer's morphology (figure 2.2) and shows the creation of the cultural landscape through the medium of a pre-created environment. In this way a cultured society responds to natural processes and through their natural environment create forms based on the ideology of the communities they develop, resulting in a cultural landscape. This cultural landscape however, also contributes to the cycle, as societies continually alter their surroundings as the culture itself develops, which stops cultural landscapes having a terminus. Alternatively, the introduction of a new culture or society into the cycle causes new cultural forms to be produced resulting in a fresh cultural landscape superimposed over the palimpsest forms of the previous. As cultures continually (re)develop their environments they simply contribute to these accumulative 'works-in-progress'. New cultures face encountering a landscape already imbued with the cultural traits of past inhabitants, they can therefore either choose to destroy these remains, or work with and around them.¹⁷ It is therefore possible to find a number of cultural landscapes within just one area, each one a palimpsest over the next. The final cycle that can be seen in figure 2.3 is one in which communication between the second and first cycles is most prevalent, whereby the society acts (usually through its own agency or that of individuals) to alter, hinder or encourage natural processes to benefit its own development. This control over natural processes can result in changes in the natural forms produced, and subsequently the environment, and eventually these changes can influence the outcome of the

¹⁷ Recent scenes (2015) of destruction at the sites of Nimrud in Iraq or Palmyra in Syria are a poignant reminder of the power that cultural markers within landscapes can have (BBC News, Nimrud: <http://www.bbc.co.uk/news/world-middle-east-32273672>: 25th March 2016, Palmyra: <http://www.bbc.co.uk/news/science-environment-34090536>: 25th March 2016). The decimation of ancient monuments contributes to the eradication of cultural identity promoting a non-Islamic past. However, the emotional attachment people feel with regard to places (such as the palace of Nimrud or city of Palmyra) can engender great public opinion – exhibiting the power of historical cultural landscapes on societies today.

morphological system. This ability to include agency within the cycle, something lacking from Sauer's original proposal, permits the environmental possibilism discussed above, in which the final cultural landscape is simply one option of a number that are offered by the natural environment. Each cycle should not and cannot be considered on its own; each element within the system is interdependent on the others and in the scope of discussions of cultural landscapes should be analysed with equal importance. Figure 2.3 allows for three agents: nature, culture and society. However, the primary agent in the production of the cultural landscape is limited here to society, albeit one endowed with culture and influenced by nature. Cosgrove stated that 'agency cannot be securely divided between nature and culture, so that all environments and landscapes are co-productions of nature-culture' (2000a: 135). By placing the role of agent with society, and individuals acting within it, both nature and culture influence their actions although cannot act themselves. This therefore entails that social differentiation should be considered more closely, as those with a higher status within society may be more capable of enacting agency – social status and power will be briefly presented in chapter 6 of this thesis.

It would be possible to continue the morphology proposed in figure 2.3 to include aspects of political, memory, ritual or sacred landscapes – all of which contribute to the cultural landscape and experience of society within it. However, this thesis cannot hope to cover all of these factors in any great depth and it would be encouraging if further research considered this methodology in order to expand figure 2.3.

2.5 Summary

As indicated above, the definition of ‘landscape’ is a controversial one – one that must be redefined depending on the discipline the work is undertaken in and yet one that should also remain flexible for it to be applicable to wider research. The definition used in this study is one that includes nature, culture and, society existing in a symbiotic and communicative network resulting in varying types of landscape. These types, as outlined above, are categorised according to readable layers developed by Meinig (1979) and can be organised into an analytical model of approach. While some approaches may concentrate efforts on just one layer, an analysis of historical landscape types must combine a number of these layers to allow for a more comprehensive impression. As indicated in the title, this research focuses primarily on just one region of Ancient Egypt (the Oryx Nome) and as such it should be noted that any conclusion regarding cultural landscapes must be limited only to this area and cannot be taken as a generalisation for the rest of the state – the Delta and Nubia for example are not considered at all in terms of their differing natural and ecological situations. It should also be known at the outset that landscapes are essential to understanding social identity through the activities that are enacted within them, and how they become literal maps of spatial relations and meanings that are largely influenced through political, social or cultural determinants. Finally, the morphological approach to landscape development adopted by this study relies on the understanding that many cyclical systems continue to function within the environment independent from defined time scales. In this way, cultural landscapes can be seen as a process which results in each cultured population leaving a palimpsest of their forms on the landscape, which can be reappropriated by succeeding cultured groups. Therefore, culture should ultimately be seen as existing *within* the environment, rather

than *on* it (Winchester et al. 2003:10). With the points outlined in this chapter in mind it is possible to explore the monuments and evidence relating to the Oryx Nome within a broader framework of geographical and political interrelations.

CHAPTER 3

THE ORYX NOME:

A CASE STUDY FOR ECOLOGICAL ANALYSIS

As previously stated, this thesis will focus on the Oryx Nome as its case study. The following chapter introduces the region, its monumental remains, and current position within the modern floodplain of the Nile Valley. This serves to create a backdrop for applying the methodology outlined in chapter 2.

3.1 The White Oryx

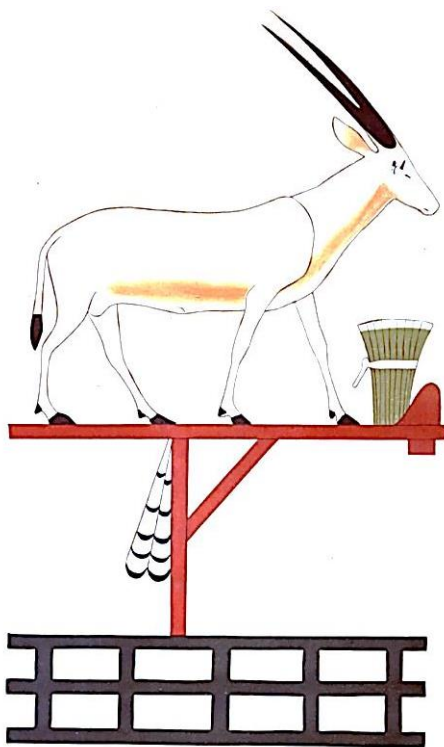


Figure 3.1: The nome standard for *M3-ḥd* as recorded by Howard Carter from the tomb of Khnumhotep II [BH 3] at Beni Hasan. (BH IV: pl. 1)

The Oryx Nome was known to the ancient Egyptians as *M3-ḥd*, or White Oryx, and was the 16th Nome of Upper Egypt. The Nile Valley was traditionally divided into 42 nomes; 22 in Upper Egypt, fixed during the 5th Dynasty; and 20 in Lower Egypt, fixed during the Greco-Roman Period (Baines and Malek 2000: 15).¹ Both Schlott-Schwab and Helck

suggested that these nomes represented divisions along the main branch of the River Nile that related to a certain number of days travel (Helck 1974: 14; Schlott-Schwab

¹ The boundaries between nomes likely altered considerably throughout Egyptian history and officials were able to hold titles in a number of nomes, as evinced by the titles given to Petosiris in his tomb at Tuna el-Gebel (Lefebvre 1923). These include roles in the temples of Hermopolis of the 15th Upper Egyptian nome as well as those at Her-wer in the 16th Upper Egyptian nome. It is unclear whether by this period, the fourth century BC, the nome boundaries had changed or whether Petosiris' influence was felt in both regions.

1981: 6; Goelet 1999: 70) and thus contributed to the organisation of Egypt from the Old Kingdom onwards.²

It is not apparent why the region was named after the white oryx, although Michalowski proposed that the oryx was worshipped in the region and thus appeared on the nome standard as shown in figure 3.1 (Michalowski 1968: 519). However, there is no indication that the animal was the focus of any cult or ritual within the nome and this theory is therefore unsubstantiated. White oryx appear regularly in the tomb scenes of Beni Hasan (see below), and these depictions may offer some clues as to why the animal became synonymous with this area of the Nile Valley. In one example, from the west end of the north wall in the tomb of Khnumhotep II, the oryx are being fed which may suggest that the area was known for breeding white oryx (see figure 3.2). However, they also appear in desert hunting scenes which may indicate their habitation of the area in wild herds during the Middle Kingdom. Oryx also feature regularly in scenes in the tombs of Meir (*Meir* I: pl. 10; II: pl. 11; III: pl. 5; IV: pl. 9, 12; V: 11; VI: pl. 18).³ This demonstrates that the animal was not specific just to products offered to the deceased of the 16th Upper Egyptian nome, and may imply a connection between the artists employed at Beni Hasan and those upriver at Meir.

² Schlott-Schwab and Helck prefer to consider *itrw* (a measure of distance along the Nile roughly corresponding to 10.5km) as the measure of a single day towing a boat southwards (Helck 1974: 14). On the other hand, Goelet sees the lengths of Nomes (often a number of *itrw*, averaging usually around 40km) as corresponding to a single day sailing, although neither direction is given, along the river (1999: 70).

³ Oryx continue to be represented in offering processions, as can be seen in the tomb chapel of Petosiris at Tuna El-Gebel (Cherpion et al. 2007: 139-143), as well as state temples such as both the Seti I and Ramesses II temples at Abydos (personal perception).

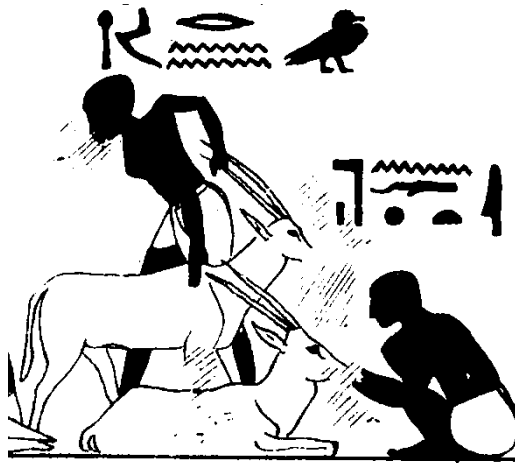


Figure 3.2: White oryx being fed in the tomb of Khnumhotep II [BH 3], BH I: pl. 30. Netchernakht (on the right) feeds the oryx, while the caption reads, 'wš3 rn n m3-ḥd', 'Fattening the young of the white oryx'.

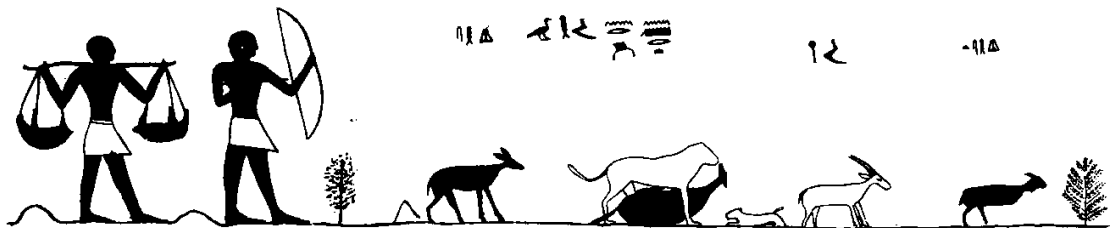


Figure 3.3: White oryx (second from right) being hunted in the tomb of Khety [BH 17], BH II: pl. 13.

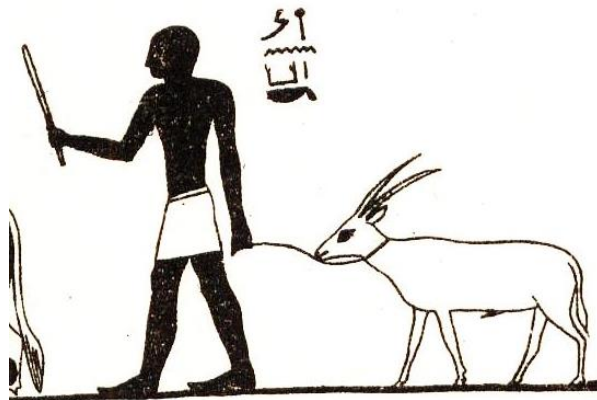


Figure 3.4: White oryx brought as an offering for the ka of Bakt III [BH 15], BH II: pl. 4.

Activity	Tomb	Reference
Brought as offerings	Bakt III [BH 15] – north wall, main chamber	BH II: pl. 4
Being slaughtered	Khety [BH 17] – south wall, main chamber (western half)	Shedid 1994: 35
Being hunted	Khety [BH 17] – north wall, main chamber (western half)	BH II: pl. 13
Procession of animals	Khety [BH 17] – north wall, main chamber (eastern half)	BH II: pl. 14
Brought as offerings	Khnumhotep II [BH 3] – main chamber, south wall	BH I: pl. 35
Being fed	Khnumhotep II [BH 3] – main chamber, north wall	BH I: pl. 30

Table 3.1: *Instances of m3-ḥd (white oryx) in the tombs of Beni Hasan*

Butzer felt that the occurrence of Egypt's wild fauna could be mapped geographically in relation to climate change, particularly between the end of the Old Kingdom and early Middle Kingdom and proposed that wild oryx were still to be found in desert areas until the end of the 11th Dynasty (Butzer 1976: 27). It is therefore possible that the area east of Middle Egypt was known for wild herds until this period and thus the animal retained some significance within the tomb decoration at Beni Hasan and other Middle Egyptian cemeteries.⁴ Perhaps most significantly, oryx were considered Sethian creatures related to concepts of chaos, and thus equated with the defeat of Seth by Horus (Helck 1974: 109). Later examples of the nome standard include a falcon perched atop the back of the oryx which may give greater significance to Helck's proposal (Montet 1961: 157). Myths relating to Horus and Seth at Edfu make reference to a form of the falcon deity located in the Oryx Nome region, namely Horus of Hebenu (Fairman 1935). The 'Legend of the Winged Disk', as inscribed on

⁴ As will be seen below, tomb scenes were copied between necropolises in the Oryx Nome and thus this transfer of scenes may be indicative of close geographical connections, or continuing workshop styles and techniques.

the inner face of the west enclosure wall at the temple of Edfu, mentions the battle between Horus as the winged disk, and the enemies of Ra as they attack the barque of the sun-god by ‘the bank of Hebenu’ (Fairman 1935: 30-31). Horus of Hebenu also appears in the White Chapel of Senwosret I at Karnak named as the region’s primary deity, as will be discussed below.⁵

3.2 *A province in Ancient Egypt*

The earliest occurrence of *M3-ḥd* comes from vessels discovered during the excavation of the Step Pyramid of Djoser at Saqqara on which a *ḥk3* (chief) and *sšm-t3* (leader of the land) are mentioned in relation to the nome (Firth and Quibell 1935: 137, pl. 106; Lacau and Lauer 1965: 45-47 [84-89], pl. 28; Helck 1974: 109). This is further confirmed by the attestation of the same title in the tomb of Wehemka at Zawiet Sultan (see section 3.4.1 below), dating to the 6th Dynasty (LD II: 61-62, Abth. II. Bl. 110). These are among the earliest attestations of any provincial leaders from Ancient Egypt and the use of nomarchial titles by officials in the Oryx Nome continued until the end of the 12th Dynasty, after which they are replaced by officials operating above the nome level.⁶ The early regional officials residing in the Oryx Nome were buried in rock-cut tombs located in the east of the region at Zawiet Sultan and Nuerat. However, the title *ḥry-tp 3*, or Nomarch, only gained prominence in the 6th to 8th Dynasties in areas located furthest from the Old Kingdom royal residence at Memphis (Fischer 1977: 410; Gestermann 1987: 155). The title was then slowly

⁵ Further discussions relating to Horus of Hebenu, and the location of a cult at Zawiet Sultan will be covered in section 5.1.1.

⁶ Franke proposed that the diminishing use of the nomarch title through the 12th Dynasty related to the increasing control of the regions under Senwosret I to Senwosret III. They enacted this change, not through aggression, but by appointing the heirs of regional officials to roles in the royal court. This ended the dynastic succession of nomarchs (discussed by Gestermann in relation to the Oryx nome, 1987: 189) and reduced the autonomy of the provinces during the late Middle Kingdom (Franke 1991). Further discussion of the nomarchs of the Oryx nome can be found in sections 3.4.3 and 6.3.1.

adopted northwards until, during the First Intermediate Period, a significant level of autonomy was gained by the provinces throughout Egypt. The first known *hry-tp ʿ3 n M3-ḥd* (Great one of the White Oryx nome) was buried in the rock tombs of Beni Hasan (see below) and those holding the title continued to be buried there until the title ceased to be used, probably following the reign of Senwosret III (see Franke 1991).⁷ Other titles are also used throughout this time illustrating a complex administrative network functioning within the Oryx Nome throughout the Middle Kingdom which was coming further and further under the control of the central state based at El-Lisht.⁸

3.3 *Boundaries*

As outlined in section 3.1 above, Ancient Egypt was traditionally divided into 42 separate administrative areas, now known as nomes. The 22 nomes of Upper Egypt stretched from Nubia in the south (Ta-Seti, Nubia, UE 1), to just north of the Faiyum depression in the north (Inbuw-Hedj, White Walls, LE 1).⁹ While the 20 nomes of Lower Egypt are particularly difficult to locate due to changing natural features and a lack of visible monuments and excavation in the Delta, those of Upper Egypt are more easily traced due to their division along the narrow Nile Valley (Snape 2014: 61-62). Although the boundaries of the nomes changed throughout the course of Pharaonic history many published maps fail to take this into account and reconstruct using definitive boundaries (such as Helck 1974 and Snape 2014: 61). As noted above, the

⁷ The proposed chronological development of the necropolis of Beni Hasan, and the officials of the region, is provided in section 3.4.3 below.

⁸ Current research by Jessica Tomkins at Brown University aims to understand the development of the nomarch title alongside the increasing popularity of priestly titles, particularly the ‘Overseer of Priests’. The progress of this research was presented at the 66th Annual Meeting of the American Research Center in Egypt, Houston, Texas, USA – 24th April 2015.

⁹ Maps of the distribution of nomes throughout the Egyptian Nile Valley can be found in Helck 1974, and Baines and Malek 2000. Helck noted that the Oryx Nome featured in 16 out of the 18 sources that he analysed, dating from the Old Kingdom through to the Greco-Roman Period (1974: 61-62).

alterations witnessed in the changing role of the nomes and the officials acting within them cannot always be traced in one region alone. As presented in the introduction, this thesis focuses specifically on the period of the Middle Kingdom which entails that here the geographical limits for this study must also be established.

3.3.1 The White Chapel

The ancient boundaries of nomes in Egypt are difficult to ascertain for all periods but evidence from the White Chapel of Senwosret I at Karnak can be useful in demarcating the region of interest in this study.

The White Chapel (*chapelle blanche*) at Karnak was originally erected as a barque station for use in the *heb-sed* rituals of Senwosret I during the early 12th Dynasty (Lacau and Chevrier 1956). Its pillars are decorated in raised relief depicting the king with various deities (Arnold 2003: 51). Around the outside of the chapel, circling the lower external walls in sunken relief, is recorded the divisions of Egypt during the king's reign. The data presented in this register can be used to obtain measurements of the size of nomes in 12th Dynasty Egypt (Helck 1974: 13-15).



Figure 3.5: The Oryx Nome as it appears recorded on the White Chapel of Senwosret I (image by author).

Each nome standard is depicted above the principal deity of the area (figure 3.5), often with the site at which the deity was worshipped. In the case of the Oryx Nome, this is given as ‘Horus of Hebenu’. Beneath this is given a measurement thought to be the size of the nome. In recreating the physical arrangement of Egypt during the reign of Senwosret I, Helck (1974) and Schlott-Schwab (1981) used these measurements to create a map of the country between the first cataract in the south and the Mediterranean coast in the north. Measurements are given in various units, for which Helck gives the following breakdown (Helck 1974: 15):¹⁰

1 cubit (*mḥ*) = 0.523 m
 100 cubits (*št*) = 52.3 m
 1000 cubits (*ḥ³*) = 523 m
 20, 000 cubits (*itrw*) = 10.5 km

An *iteru* generally correlates with the Greek *schoenis* and therefore corresponds to a riverine measurement (Faulkner 1962: 33; Schlott-Schwab 1981: 113 Priskin 2004: 57). Schlott-Schwab and Helck both used these figures to work out the length of Egypt and the associated arrangement of nomes. Helck proposed that an *iteru* measurement matched the amount of distance that could be covered in one day when towing along the river and thus provided a useful device for organising communication throughout the country during the Pharaonic Period and later (Helck 1974: 14).

With the listed measurements it is possible to reconstruct the boundaries of Egypt’s nomes along the river valley. For example, the White Chapel lists the Oryx Nome as being of 4 *iteru* and 7 *kha* along the river, corresponding to roughly 45.5km.

¹⁰ It is clear that Helck’s figures do not add up to 10.5km, and it is likely that he has rounded to the nearest multiple of 5 giving a result more similar to the measurements given by Lacau and Chevrier (1956: 241).

However, without accounting for changes in the natural environment of Egypt between the 12th Dynasty and modern times it is impossible to be certain that these boundaries would be correctly located. Further discussion of changing river position within the Nile Valley is reserved for chapter four – but here it will suffice to outline the broad geographical area that will be considered in this thesis. Using other textual and archaeological evidence, it is possible to broadly outline the boundaries of ancient nomes. However, these approaches must also account for changes in the geographical organisation and linguistic development of place names in Egypt. Using the evidence of changes in the natural environment, together with textual and archaeological evidence, a more defined urban region will be discussed in chapters 5 and 6.

Egyptian nomes and those officiating within them maintained close ties with neighbouring areas and the royal residence, as is apparent from the appointment of Khnumhotep II as an official during the 19th regnal year of Amenemhat II (Redford 1967: 158; Lloyd 1992: 22; Kamrin 1999: 1; Rabehl 2006: 1). Khnumhotep was the son of Neheri, the nomarch of the neighbouring Anty nome (UE 18)¹¹ and appointed as mayor in Menat-Khufu (see chapters 5 and 6) through his mother's inheritance as daughter of Khnumhotep I (a Nomarch of the Oryx Nome, and Overseer of the Eastern Desert, see section 6.3.2). Likewise, the son of Khnumhotep II, Nakht, was made ruler of the Cynopolite Nome (UE 17) by Senwosret II, while another son,

¹¹ Khnumhotep II built the Ka chapel of his father, Neheri, at Mer-Neferet (Redford 1967: 158; Lloyd 1992: 24). This town has been variously located in the Oryx Nome (UE 16), the Hare Nome (UE 15), or the Anty Nome (UE 18). Newberry first located the town in the vicinity of the Hare Nome to the south of Beni Hasan due to similarities in titles and names shared with the owners of tombs at Deir el-Bersha (BH II: 21). Montet followed this reasoning and located the town in either UE 16 or UE 18. When faced with this confusion Montet felt that it was possible that two localities named Mer-Neferet could have existed within a close distance of each other (1961: 160-161, 176-177). Redford has subsequently shown however, that Mer-Neferet is most likely to be equated with modern Tihna el-Gebel, a town called Akoris in the Roman Period (Redford 1967: 158-159). Redford's brief study of personal names, genealogy and titles indicates that the political organisation of the four nomes in the region under consideration (15th-18th) should be reanalysed to understand their interconnections (as shown by Gomaa's continued use of Newberry's theory, 1986: 321). Mer-Neferet translates as 'the beautiful water-course/canal', and it is possible that this wadi-mouth settlement (see chapter 4) was connected to the main Nile via a secondary branch or man-made channel.

Khnumhotep (III) was made Vizier and given a burial alongside the pyramid of Senwosret III at Dahshur (De Morgan 1895: 23; Franke 1991: 60-61; Allen 2008).

3.3.2 Classical sources

The arrangement of Egypt into a variety of provinces and communities is expressed in classical sources. Two particular sources will suffice to be mentioned here, Herodotus and Strabo. Both authors discuss Egypt's valley as a series of cultural groupings that are centred within small administrative areas – although it is clear that some regions held greater power than others. Herodotus implied that certain identifiable cultural groups could consist of individuals coming from a variety of regions joining together to identify with occupations rather than origins (Herodotus, II, 165-166; trans. Waterfield):

‘The warrior class consists of subdivisions called the Calasiries and the Hermotybies, and each of these two subdivisions comes from different provinces (the whole of Egypt being divided into provinces).

The Hermotybies come from the provinces of Busiris, Sais, Chemmis, Papremis, Prosopitis Island, and half of Natho. [...]

The Calasiries come from the provinces of Thebes, Bubastis, Aphthis, Tanis, Mendes, Sebennys, Athribis, Pharaethus, Thmouis, Onouphis, Anytis, and Myecphoris (which is situated on an island opposite Bubastis).’

While many of these sites are identifiable with archaeological sites today, this description proves difficult to correlate with the nome list given in the White Chapel of Senwosret I. By at least the Ptolemaic Period it is clear that the regions of Egypt were identified according to their primary settlement or administrative centre. This may however simply indicate a more Mediterranean view of urban organisation in which cities form a specific element of cultural identity. Egypt's central administration did not function in the same way that Near Eastern or Greek city states could with the sole focus being on the identification of individuals with a local

settlement. Although, there can be little doubt that local origins did play a significant role in the construction of identity and a sense of belonging, the focus for Egyptian ideology was on the unity of the state.¹² This could be debated during the intermediate periods when the control of the central state was reduced, but the concept of a unified Egypt appears to prevail throughout Pharaonic history.

Strabo on the other hand gives a very detailed geographical account of the Nile Valley, stretching from the Mediterranean coast in the north to Elephantine in the south (XVII, 801-818). Both Strabo and the White Chapel delimit their studies of Egyptian geography at this point, no doubt due to the natural barrier afforded by the first cataract. Like Herodotus, Strabo focuses his attention on the cities of the Nile Valley and the gods that are worshipped there. This is similar, in the sense of naming cities and their deities, to the arrangement listed by the White Chapel, although Strabo omits any study of nome length. Strabo does however give an indication of the general organisation of the Nile Valley into nomes (XVII, 787-788; trans. Jones 1932):

‘The country was first divided into Nomes, the Thebaïcs containing ten, the country in the Delta ten, and the country between them sixteen (according to some, the number of the Nomes all told was the same as that of the halls in the Labyrinth, but the number of these is less than thirty); and again the Nomes were divided into other sections, for most of them were divided into toparchies, and these also into other sections; and the smaller portions were the *arourae*. There was need of this accurate and minute division on account of the continuous confusion of the boundaries caused by the Nile at the time of its increases, since the Nile takes away and adds soil, and changes conformations of lands, and in general hides from view the signs by which one's own land is distinguished from that of another. Of necessity, therefore, the lands must be re-measured again and again. And here it was, they say, that the science of geometry originated, just as accounting and arithmetic originated with the Phoenicians, because of their commerce. Like the people as a whole, the people in each Nome were also divided into three parts, since the land had been divided into three equal parts. The activity of people in connection with the river goes so far as to conquer nature through diligence. For by nature the land produces more fruit than do other lands, and still more

¹² For a discussion of identity and its connection to urban area see Quirke 1991.

when watered; and by nature a greater rise of the river waters more land; but diligence has oftentimes, when nature has failed, availed to bring about the watering of as much land even at the time of the smaller rises of the river as at the greater rises, that is, through the means of canals and embankments. At any rate, in the times before Petronius the crop was the largest and the rise the highest when the Nile would rise to fourteen cubits, and when it would rise to only eight a famine would ensue; but in the time of his reign over the country, and when the Nilometer registered only twelve cubits, the crop was the largest, and once, when it registered only eight cubits, no one felt hunger. Such is the organisation of Aegypt.'

Strabo only counted 36 nomes in Egypt during his travels in the Roman Period (probably in 25 BC). This gives further indication to the fluctuating boundaries within the provincial organization of Egypt. Strabo's indication of the confusion caused by the seasonal changes in the flow of the Nile is indicative of the ecological relationships forged between communities and the natural environment in Egypt and is a useful comparison to evidence presented in chapter 4. This change in the organization of the Nile Valley also draws attention to the problems encountered if using sources outside of the period of study to reconstruct the boundaries of Egypt's provinces. While earlier or later sources cannot always be avoided this thesis will keep these in mind, while using geographical and textual evidence together to reposition the boundaries of the Oryx Nome during the Middle Kingdom in particular. Strabo draws attention to the ecological relationship between the valley inhabitants and the natural processes occurring around them. It is tempting to see their perceived 'diligence' as Strabo's attempt to understand this complex connection similar to the morphological systems presented in figure 2.3 in chapter 2.

3.3.3 Summary

From the analysis of nome boundaries by Helck it is clear that the 16th nome of Upper Egypt should certainly be located within the modern El-Minya governorate.

Frequent mentions regarding the administration of the region can be found in the tombs of Zawiet Sultan and Beni Hasan, thus indicating that from the late Old Kingdom until the end of the 12th Dynasty these two sites fell within the boundaries of the nome. Helck placed the southern border of the nome at the modern town of Itlidem, and the northern border at a point north of modern Tihna el-Gebel. This would give a modern reading along the Nile of around 44.5km, falling only slightly short of Helck's analysis of the White Chapel data of 45.661km. Further research by Kessler and Redford both support the hypothesis that Tihna el-Gebel is actually to be equated with the ancient town of Mer-Nofret, and was a significant administrative settlement in the 17th nome of Upper Egypt (Redford 1967: 158-159; see section 3.3.1 above). It is therefore unlikely that it fell within the boundaries of the Oryx Nome during the Middle Kingdom, or would have featured in the autobiography of Khnumhotep II in this way. The boundaries between the 16th and 17th Upper Egyptian nomes must therefore lie at some point north of Zawiet Sultan and south of Tihna el-Gebel – a stretch of 20km. In the same way, the southern boundary of the Oryx Nome must therefore lie south of Beni Hasan, but north of El-Ashmunein, the administrative centre of the 15th Upper Egypt nome – also a distance of 20km. For the purposes of this thesis the following general boundaries can be used to coordinate the research; the southern border of the Oryx Nome is taken to include the promontory of Sheikh Timai, 10km (directly) north of El-Ashmunein. The northern border is placed around El-Minya, 10km (directly) south of Tihna el-Gebel. Within this 27km stretch of the valley the Nile currently measures 31.5km. Butzer's work in the Nile Valley has already indicated that the river has straightened out considerably since the 1960s and it is therefore possible to imagine a much more sinuous, wider river within this stretch of the valley during the Middle Kingdom (Butzer 1976: 35; Graham 2010: 125; see

chapter 4). Indeed, maps recorded since the Napoleonic survey of Egypt already indicate substantial changes in the course of the river over the last three centuries (see chapter 4). By considering the natural processes at work within the Middle Egyptian Nile Valley it may be possible to propose a more accurate reconstruction of the cultural landscape, including the original Nile course(s), during the Middle Kingdom.



Figure 3.6: Satellite image indicating the broad area considered in this thesis.

3.4 The archaeology of the Oryx Nome

The Oryx Nome is situated in one of the most archaeologically significant stretches of Middle Egypt, between the sites of Tuna el-Gebel, Sheikh 'Ibada (Antinoopolis), Deir Abu Hinnis, Deir el-Bersha, and El-Ashmunein (Hermopolis Magna) in the south, and Tihna el-Gebel (Mer-Neferet), the Fraser Tombs and El-Hibeh (Tayu-djayet) in the north. The region of study itself is perhaps less impressive with regard to its monumental remains, but the potential for discovery in the region, pertaining to settlement remains and cemeteries, remains high. The following section highlights the four main archaeological sites in the region and their spatial and chronological relationship to each other. Here the aim is to present the salient archaeological facts for each site, while further discussion of their texts and decoration, where relevant, will feature in subsequent chapters. The sites are here arranged north to south (i.e. Zawiet Sultan, Nuerat, Beni Hasan, and Balansura) and are not exhaustive for the remains to be found in the area, more of which can be seen in figure 3.10. An in depth study of archaeological areas of interest for this region can be found in Kessler's *Historische Topographie der Region zwischen Mallawi und Samalut* (1981).

3.4.1 Zawiet Sultan

An overview

The site of Zawiet Sultan is located on the east bank of the Nile, roughly 8km south-east and opposite of El-Minya. For the purposes of this thesis the name Zawiet Sultan will cover the entirety of the area described below and indicated in figure 3.9, although in literature this area covers a number of localities. The terrace of rock-cut tombs in the eastern desert cliffs is usually named Zawiyet el-Meitin or Zawyet el-Amwat. Around these tombs lie the extensive mud-brick remains of Kom el-Ahmar

(Kessler 1981: 64-65). The site consists mainly of mud brick remains, revealing the only extant settlement archaeology within the area covered by this thesis. In the north of this area, among the ruins, is located a small stone pyramid probably dating to the late 3rd Dynasty (Marquess of Northampton 1899; Weill 1912; Weill and Jouguet 1934-37; Piacentini 1993; Moeller 2005a; De Meyer et al. 2011). The terrace of decorated rock-tombs date predominantly to the 6th Dynasty (PM IV 134-139). The site has been visited frequently in modern times and antiquity, a full account of the travellers who have drawn attention to the remains at Zawiet Sultan can be found in Piacentini's monograph (1993:15-29).

The rock-cut tombs

Carved into a rock terrace in the eastern desert cliffs behind the settlement remains are cut 19 tombs dated to the 6th Dynasty of the Old Kingdom (LD II: 55-69; PM IV 134-139). The tombs were previously visited by Champollion (1889: 436-454) and Lepsius (LD II: 55-69) who each recorded some of the preserved texts. Unfortunately the site has suffered badly from quarrying, before and after the visits over recent centuries, hence the records made by these early travellers are invaluable to scholars today. A full account of the tombs dating to the Old Kingdom is given by Piacentini (1993: 48-74) and will therefore not require repeating here. However, a few tombs can be considered to give a background for the development of the Oryx Nome in the early Pharaonic Period.

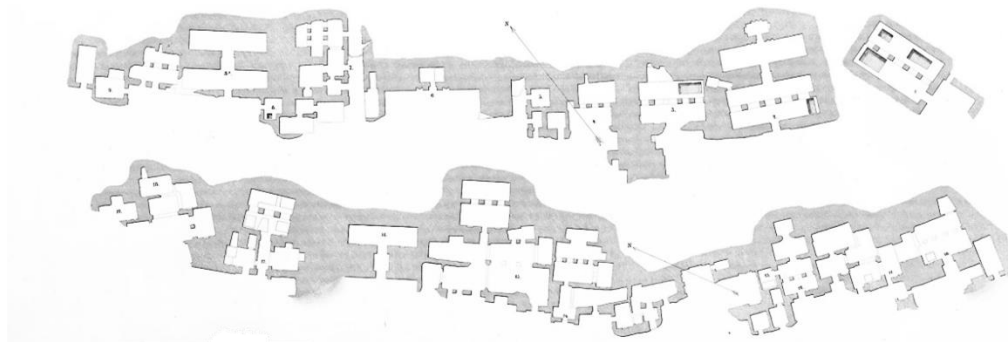


Figure 3.7: The rock tombs of Zawiet Sultan dating to the 6th Dynasty (LD I: Bl. 57).

A number of tombs in the Old Kingdom necropolis contain titles that relate to the formation of early provincial administration in Egypt. As noted above, some of these early titles of officials in the Oryx Nome were discovered on vessels at the Step Pyramid of Saqqara (Firth and Quibbel 1935: 137, Pl. 106; Lacau and Lauer 1965: 45-47 [84-89], pl. 28; Helck 1974: 109). The titles of all three officials listed in table 3.2 date to the 6th Dynasty and come from the tombs of Zawiet Sultan. They exemplify the variety of roles and titles held by regional officials at this time. Khunes clearly retained a connection with the royal residence, and the title *rh nsw.t M3-ḥd* may indicate royal appointment to regional posts. However, the titles of Wehem-ka and Ni-ankh-Pepy clearly indicate an increasing level of autonomy within the nome, disconnected from royal control.

Tomb	Owner	Titles	
2	Khunes <i>Ḥwns</i>	<i>rh nsw.t M3-ḥd</i> <i>sšm-t3</i> <i>ḥk3 ḥw.t ʕ3</i>	Acquaintance of the King in Ma-Hedj Leader of the land Chief of the great estate
6	Wehem-ka <i>Wḥm-k3</i>	<i>sšm-t3 M3-ḥd</i>	Leader of the land of Ma-Hedj
14	Ni-ankh-Pepy <i>Ny-ʕnh-Ppy</i>	<i>imy-r wp.t m</i> <i>sp3.w.t 9</i>	Overseer of commissions in nine nomes

Table 3.2: Titles from the tombs of Zawiet Sultan (as presented in Piacentini 1993: 99; and Fischer 1977: 408-417).

The tomb of Ni-ankh-Pepi (also known as Hapi) was excavated and recorded by Abu Seif and Varille from 1927-1933. Despite damage from quarrying and looting, the reliefs of the tomb were recorded and exhibit many similarities to those witnessed in other tombs of the necropolis (Varille 1938: 9-10), as well as decoration seen in the later tombs at Beni Hasan during the Middle Kingdom (Kanawati and Woods 2010: 18-19).¹³ The title *imy-r wp.t m sp3.w.t 9* is discussed by Varille in relation to the Pre-dynastic communities of the Nile Valley and the subsequent geographic division of land through reference to religious entities (1938: 33-38; see figure 3.8 below). However, holding influence across more than one nome was not an uncommon occurrence, and the close relations between regions and expanding influence continues throughout Egyptian administrative history (Fischer 1977: 411), demonstrated clearly in the autobiography of Khnumhotep II at Beni Hasan, discussed in section 3.3.1 above.



Figure 3.8: *Ni-ankh-Pepy presented in his tomb alongside his wife. He is called imy-r wp.t m sp3.w.t 9 Hpi, Overseer of commissions in nine nomes Hapi (Varille 1938: Pl. 11)*

One large New Kingdom rock-cut tomb has also been discovered and recorded at Zawiet Sultan. It is located in a terrace significantly higher than those of the Old Kingdom and was dedicated to an official named Nefersekheru (Osing 1992). The deceased is not labelled as one of the controlling regional elite, but instead held

¹³ The implications of similar artwork shared at both Zawiet Sultan and Beni Hasan can be found in section 6.5.6.

scribal titles. The change in titles recorded, and in the decoration of the tomb reflects the political changes in Egypt between the Middle Kingdom and New Kingdom.

The quarries

Although quarries, ancient and modern, can be found throughout Middle Egypt's eastern deserts, those at Zawiet Sultan are particularly large.¹⁴ A survey by Klemm and Klemm revealed a number of open-cast quarries around the archaeological site and nearby Islamic cemetery, some with walls exceeding 10m in height (2008: 7). The site seems to have been important for the supply of soft and hard limestone during the Pharaonic Period. While all of the quarries have been dated to the New Kingdom, it would be impossible to know whether these quarries were indeed utilised during earlier periods without investigation of areas beneath the modern cemeteries (see figure 3.11). One such area of quarrying to the north of the site preserves a large unfinished statue left in-situ in the rock. It appears that the statue was abandoned due to its enormous size and the complexity of removing it from the bedrock. It has been dated to the reign of Amenhotep III, based on the artistic style of the outline left on the rock surface prior to extraction (Klemm and Klemm 2008: 75). The presence of this economic resource is quite possibly the reason for Zawiet Sultan's longevity of occupation.

¹⁴ Klemm and Klemm (2008) report a number of quarries within the area of interest for this study, all located on the east bank and producing varying densities of nummilitic limestone. They can be found at Tihna el-Gebel, Zawiet Sultan, Wadi Sheikh Yasin, Beni Hasan, Wadi Batn el-Baqara, Sheikh Timai, and Sheikh 'Ibada. Those to the north of the area preserve only New Kingdom to Greco-Roman Period quarrying, while those to the south have some evidence connecting extraction activities to the Old or Middle Kingdoms (see Klemm and Klemm 2008, 68-85 for a full discussion).



Figure 3.9: *The small step-pyramid of Zawiet Sultan located at a lower level than the surrounding mudbrick urban remains of later periods and the modern cultivation (image by author).*

The urban remains

The settlement remains at Zawiet Sultan have never undergone a full systematic excavation although a number of features have been explored since the late nineteenth century. It was investigated by the Marquess of Northampton¹⁵ in 1899, after a careful examination of its potential in 1898. He succeeded in locating the pyramid in the north-west corner of the site.¹⁶ Concentrating in this same area he found only remains dating to the Roman Period and conceded that the *sebakhin* had reached bedrock in many areas and ‘only found Roman remains and nothing of interest’ (1900: 192). Although he did suggest that the higher eastern section may have had higher potential for further discoveries.

¹⁵ Sir William George Spencer Scott Compton, 5th Marquess of Northampton, Bierbrier 2012: 129.

¹⁶ The Marquess of Northampton originally thought that the pyramid of Zawiet Sultan may have been a tomb, although further investigations have never found a chamber within or near it. It is likely that the monument fits into the system of small pyramids located throughout the Nile Valley that denote royal activity – the most accessible being that at Elephantine which was originally constructed on the western island within the early Old Kingdom necropolis area, including a number of small mastabas (Kaiser 1998: 10-11).

Subsequent investigations in the same area were conducted by Weill in 1911 with ensuing seasons in 1912, 1913, 1929, and 1933 (Weill and Jouguet 1934-37: 88). In 1912, like the Marquess of Northampton earlier, he also reported the discovery of the small, stepped pyramid similar in construction to the more famous example at Saqqara (the Djoser Step Pyramid), and that at Zawiet el-Aryan.¹⁷ Weill recorded that the pyramid was covered by the mud-brick remains of later Greco-Roman Period settlement (1912: 489) and that this hindered his exploration of a possible intact burial chamber (1912: 490).¹⁸ One of Weill's most significant discoveries helps to understand the chronological development of the site; a number of blocks dating to the reign of Amenhotep III in the vicinity of a ramp 'dont la ligne conduit forcément à quelque temple' (1912: 490; Varille 1938: 30-31).¹⁹ Weill reports no further evidence of the temple atop the ramp in 1912 although a later publication in 1934-37, by Weill and Jouguet, proposed a religious centre situated in this settlement that could have been located in this temple precinct. Further excavations of the ramp leading up to the tombs overlooking the settlement remains revealed more blocks from an establishment of Amenhotep III, as well as blocks with the name of Ramesses III located within the masonry of the upper section of the ramp (1934-37: 89; Kessler 1981: 217-219). These later blocks included the epithet, 'beloved of Horus, Lord of Hebenu'. Coupled with the mentions of the same deity in the tombs around the site Weill and Jouguet convincingly suggested that Hebenu and Zawiet Sultan were to be equated (1934-37: 85 and 89), this will be discussed in more detail in section 5.1.

¹⁷ Piacentini gives the measurement of each side of the Zawiet Sultan pyramid base as 22.5m, or 43 cubits, and proposed that it once stood 17m tall (1993: 37).

¹⁸ Butzer also recorded that the pyramid was constructed on the solid bedrock of the promontory, which in 1961 measured 2m lower than the height of the surrounding fields. This unusually low depth may be indicative of alluvial deposition over the area since the 3rd Dynasty (Butzer 1961: 61).

¹⁹ A scarab of 'Amenhotep (III) beloved of Horus, Lord of Hebenu' is kept in the British Museum and gives further evidence to the apparent resurgence of Hebenu as an important religious centre in Middle Egypt during the 18th Dynasty (Hall 1913:182 [EA26990]).

Excavations also revealed a number of monuments dedicated to a local variant of the Greek god Apollo, who had become assimilated with Horus of Hebenu, and was thus worshipped at a shrine on the platform atop the ramp discovered in 1911. The extensive Greco-Roman mud-brick remains on the promontory are to be associated with this phase.



Figure 3.10: Satellite view of Zawiet el-Sultan / Zawiet el-Meitin archaeological area (2006) with location of the Old Kingdom and First Intermediate Period settlement remains, from N. Moeller, *The Archaeology of Urbanism in Ancient Egypt, From the Predynastic Period to the end of the Middle Kingdom*, Cambridge (2016): Cambridge University Press, fig. 7.1.

No further work was carried out at the site until 1999 when an archaeological survey was carried out by Hamza, Kemp, and Buckland (Moeller 2005a: 29). As well as confirming previous findings at the site, presented above, a survey of surface ceramics indicated that 90% were of Greco-Roman date. Discoveries of olive presses and sections of enclosure wall also pointed to substantial activity during this period

(Moeller 2005a: 29). Shaft tombs located beneath the rock-tombs of the higher terrace were likened by Moeller to Beni Hasan in the south, and could also be comparable to those at Nuerat discussed in section 3.4.2 below (Moeller 2005a: 30). As at other cemeteries in the region, the presence of mastaba tombs along the embankment may indicate close connections between the occupants of these tombs and the developments in funerary ritual and architecture taking place at the royal residence during the Old Kingdom (see section 3.4.2). Layers of alluvial silt recorded in an exposure dating to the Old Kingdom suggests substantial Nile movement in the area and may explain why no Middle Kingdom remains have so far been discovered throughout the settlement site (Moeller 2005a: 33-37).²⁰ Since 2015, a new expedition led by Bussmann, Miniaci and El-Bakry to Zawiet Sultan aims to bring together all of these previous discoveries to explore the archaeological remains in their wider chronological context (Bussmann et al. 2016).

Curiously, as mentioned above, excavations of the town area have not revealed any Middle Kingdom remains. This could be explained by two theories: 1. political shifts in the nome during this time concentrated activity in the south of the region (Weill and Jouguet 1934-37: 87), 2. Nile shifts have resulted in a loss of evidence (Moeller 2005a: 37). Both of these theories will be explored throughout this thesis to better understand the development of Zawiet Sultan during the Middle Kingdom.

²⁰ In a 2016 publication Moeller discusses Old Kingdom remains discovered at the site of Zawiet Sultan (2016: 217-218). Unfortunately, this thesis has been unable to incorporate this new research – though it falls outside the chronological scope of this work.



Figure 3.11: The substantial settlement remains of Zawiet Sultan are located on a promontory in the Nile Valley where the river is currently forced to narrow as a result of the higher ground beneath the tell remains. The rock-tombs are cut into the base of the steep cliffs towering over the surrounding the urban remains, though the earlier tombs are now located beneath the mudbrick mound. Evidence of ancient and modern quarrying can be seen in the eastern desert cliffs to the east of the site. Vast modern cemeteries extend north and south of the remains, and to the north have encroached upon the site. No further expansion is visible in this satellite image from 2005, although minor looting can be seen in later satellite images. A modern road circling the site on its west, between the remains and the river, has reduced the effect of natural erosion on the archaeology.



Figure 3.12: The extant archaeological remains include mud-brick walls, rock-tombs, and the lower courses of an Old Kingdom pyramid which is clearly visible in this satellite image taken in 2013 showing the northern area of the site. The ramp explored by Weill and Jouguet is noticeable in the north, leading to a terrace of New Kingdom rock-cut tombs.

3.4.2 Nuerat

The rock-cut tombs

The cemetery of Nuerat (variously spelled Nuwayrat, or Nuairat) consists of relatively simple chamber tombs situated high in the eastern desert cliffs. The site was originally explored by Garstang when he excavated the necropolis of Beni Hasan to the south (see section 3.4.2 below). Although the excavations have never been fully published, Garstang explored roughly 100 tombs in the area and discussed them briefly in his publication of the necropolis of Beni Hasan (Garstang 1907: 26-30). Further surveying by Kessler (1981: 190-199), and later by the Deir el-Bersha Project (De Meyer et al. 2011), have elucidated some of the more unusual features of the site. Two types of tombs can be identified; firstly the rock-cut chambers in the desert cliffs usually consisting of one square chamber and one or more burial shafts, and secondly, the burials of individuals (usually in groups) within rough circular superstructures made using limestone boulders. Garstang dated the tombs, based on architecture and burial customs, to the 3rd and 4th Dynasties (Garstang 1907: 26-27). Kessler refuted this by suggesting that the tombs belonged more to the 4th to 6th Dynasty based on architectural similarities at Deir el-Bersha and Sheikh Said (Kessler 1981: 192). However, later survey work by the Deir el-Bersha Project preferred Garstang's original dating, stating that 'the architectural differences outweigh the similarities between the tombs in these three necropolises' (De Meyer et al. 2011: 683).

The rock-tombs are arranged in two rows, one above the other, although no plan of the site exists, De Meyer et al. suggest that these higher tombs relate to burials in the lower slopes which could imply community or dependency groupings (De Meyer et al. 2011: 682). Similarities in the shaft construction at the site are also comparable to the construction of rock-tombs at Giza indicating connections between

the community buried at Nuerat and those interred at the royal court. The connections between this region and the royal residence could also be confirmed by the construction of a small step-pyramid at the site of Zawiet Sultan north of Nuerat (see 3.4.1 above).

A number of royal domains are listed in the valley temple of the Bent Pyramid of Sneferu, five of which are likely located in the region of study for this thesis. As suggested by De Meyer et al., it is possible that Nuerat represents the burial ground of one of these domains (De Meyer et al. 2011: 692). This would explain the similarities in shaft construction between Nuerat and Giza, as well as the occasional presence of false-doors and decoration. The Deir el-Bersha Project has found local examples of rock circle tombs at El-Bersha, similar to those on the lower slopes of Nuerat. De Meyer et al. therefore suggest that Nuerat represents a highly stratified society with close connections to royal styles developing in the north. The officials buried in the upper necropolis were of high rank, while those interred in the rock circles beneath represent the local officials working beneath those interred above (De Meyer et al. 2011: 691).

Overall the cemetery has a north-south arrangement following the course of the eastern desert cliffs. The earliest tombs are situated at the northern extent of the site exemplified by simple rock-cut tombs and a prevalence of early Old Kingdom ceramics. Continuing south along the cliffs the tombs develop gradually more complex arrangements, occasionally including more than one chamber. Those in the south of the cemetery date to the late 4th Dynasty, but cannot be from the 5th or 6th Dynasty, as suggested by Kessler, as no ceramics dating to this period were found.



Figure 3.13: *This satellite image from 2014 shows the location of the Nuerat tombs in the eastern desert cliffs above the modern cultivation. Like at Beni Hasan (see 3.4.3 below), the lower desert slopes include further burials. A personal visit during March 2016 indicated that expansion of modern cemeteries in this area will soon encroach upon the desert slopes beneath the tombs. This was confirmed by Bart Vanthuyne later in 2016 (personal communication).*

3.4.3 Beni Hasan

Chronology and overview

The imposing tombs of Beni Hasan have been visited regularly throughout history, testified by numerous carvings of graffiti within them, both ancient and modern and many publications focusing on them.²¹ They remain one of the most prominent sites of Middle Egypt even today. Carved high into the limestone cliffs of the eastern desert overlooking the wide floodplain below, the tombs of the upper necropolis command a view unparalleled in the neighbouring area. Many scholars have recorded the

²¹ Coptic habitation within the tombs of the upper necropolis is indicated by the presence of a number of dipinti recorded by Champollion (1889: 384) and Newberry (BH II: pl. 25).

necropolis;²² some of which will suffice to give an archaeological overview of the site and its major features.

The site comprises of two cemeteries, the upper and lower necropolises. The former consists of 39 rock-cut tombs carved into a band of thick white nummulitic limestone in the cliffs of the eastern desert (BH I: 1). Twelve of these tombs are decorated with painted scenes and inscriptions recording the roles of their inhabitants, and in some cases more lengthy texts relating to the political situation of the nome (BH I: 1-2). Beneath the upper necropolis rock terrace is located a vast lower necropolis containing 888 shaft tombs cut into the desert escarpment (Garstang 1907). This large necropolis, the largest excavated example of its type in Middle Egypt, was likely the resting place of the lower officials and elite of the Oryx Nome during the same period as that represented by the upper necropolis (Seidlmayer 1990: 230). On the very edge of the cultivation are located a number of abandoned and ruined settlements dating to the Medieval period. Newberry records that it was the previous inhabitants of these settlements that gave the tombs their current name, Beni Hasan – the sons of Hasan (BH I: 1). Visitors to the site must scale the gradient of the cliffs

²² The development of the cemetery of Beni Hasan features regularly in discussions of regional administration of the Middle Kingdom, largely due to the well preserved decoration and inscriptions of the upper necropolis rock-cut tombs, as well as the material goods (including coffins, ceramics, and tomb models) discovered in the lower necropolis shaft-tombs. Champollion first visited the site to record the inscriptions in the tombs and made a copy of the titles preserved in the upper necropolis, as well as the autobiographical inscriptions found in tombs 2 and 3 (1889: 334-436). Lepsius subsequently surveyed the rock-cut tombs providing further details regarding their decoration, inscription and architecture (LD II: 69-108). A systematic survey of the upper necropolis was not carried out until 1890 by Newberry under the Archaeological Survey of Egypt on behalf of the Egypt Exploration Fund (BH I-IV) providing architectural plans of each tomb and epigraphic plates of their decoration, occasionally complemented by watercolour plates. Translations of the inscriptions preserved were provided alongside the decoration that they accompanied. While some cursory analysis of the shaft-tombs in the lower necropolis was performed by Fraser under Newberry, it was not until 1902 when Garstang excavated the escarpment that almost 900 shaft burials were discovered (1907). These tombs were often disturbed, but a great many objects were discovered and subsequently distributed throughout the world's museums making analysis of the regional material culture difficult (see Orel 1993: 510-578 for a catalogue of known objects in museums and private collections). Notably, without available dating evidence either from the material goods or explicit inscriptions, scholars have debated the chronological development of Beni Hasan over the last century, including: Brunner 1936; Schenkel 1962; Spanel 1984; Willems 1988; Seidlmayer 1990; Hölzl 1992; Orel 1993; Shedid 1994; Kamrin 1999; Rabehl 2006; Brovarski 2010; Kanawati 2010; and Bommas 2012a.

which measure just 50m above sea-level at the edge of the cultivation, rising up to 110m on the rock terrace; a distance of only 30m giving a rise of 2m in every metre covered on foot. A brief description of the main archaeological features of the site will be presented here, with further discussion of the significance of this prosperous provincial necropolis reserved for chapter 6.

While the chronological development of the Beni Hasan necropolis is not the focus of this thesis, containing the study within a timescale with which to relate it to other studies is crucial and an overview of previous studies will be provided here. Newberry's original dating of the tombs to the 12th Dynasty based on the appearance of kings' names in three of the tombs is still the primary dating criterion for the upper necropolis (BH I: 2-3; see table 3.3), although more detailed studies relating to genealogy, tomb development, and material culture have been attempted in order to provide more accurate dating tools.

Tomb	Tomb owner	Royal date
14	Khnumhotep I	Amenemhat I
2	Amenemhat (Ameni)	43 rd year of Senwosret I
3	Khnumhotep II	19 th year of Amenemhat II 6 th year of Senwosret II

Table 3.3: *Dates recorded in the three tombs at Beni Hasan (adapted from BH I: 2-3; BH II: 16).*

Chronology of the upper necropolis

Figure 3.14 illustrates the proposed chronological arrangement of tombs in the upper necropolis of Beni Hasan that will be utilised in this thesis. This scheme takes into account the work on architectural development by Hölzl (1992; see figure 3.15) and Shedid (1994: 22), and the genealogical organisation presented by Newberry (BH II: 5-16). Brunner's arrangement of the architectural development of the tombs of the upper necropolis is somewhat similar to that proposed later by Hölzl, however

Brunner omits discussion of tombs 4 and 23. Brunner also suggests a linear chronological arrangement of the tombs, whereas Hölzl recognized the overlapping nature of some of the architectural developments, thus dividing his type 2 into two groups, 2a and 2b. Hölzl's typology assumes the increasing complexity in tomb plan and architectural elements: an overview of the features of each phase is provided in figure 3.14, with a suggestion of which tombs should be included in each one. Shedid's suggested genealogical arrangement, placing Netchernakht before Khnumhotep I, has not been adopted due to the differences in preserved titles in tombs BH 14, BH 21, and BH 23 (1994: 14). The lack of the title *hry-tp ʿ3 n M3-ḥd* in the tomb of Netchernakht more closely links him to Khnumhotep II. Likewise, the declaration by Khnumhotep II that he completed tomb BH 23 implies that they more closely followed each other in their succession – although were perhaps not related directly (BH II: 29).²³ As well as architectural elements, Schenkel's analysis of titles and philological evidence was also considered (1962). However, due to the vast difference in regional styles evident during the Middle Kingdom, as proven by analyses of the ceramics and material culture of the lower necropolis (Kemp and Merrillees 1980: 51; Bourriau 1981: 60; Seidlmayer 1990: 233), a more specific regional basis of evidence for the arrangement has been followed. By dividing the undecorated and uninscribed tombs between Hölzl's architectural divisions it is clear that the upper necropolis may reflect a longer span of time than previously considered. The majority of rock-cut tombs fall into type 1, the earliest of Hölzl's typology. This may indicate that the necropolis was in use from at least the early First

²³ As Khnumhotep II records in his autobiography that Khnumhotep I was his maternal grandfather, it may be possible that Nakht and Netchernakht were both uncles (or uncle and cousin) to Khnumhotep II (Lloyd 1992: 22). Without a dynastic heir to the title *imy-r smi.wt i3bty.wt* it seems that Amenemhat II appointed Khnumhotep II to the role, as well as restoring the title *h3ty-ʿ n Mn3t-Ḥwfw*. Shedid reorganised this arrangement and also fits that proposed in figure 3.13, after recognizing BH 23 as having a type 2b plan (1994: 22).

Intermediate Period, and thus would explain the appearance of some Old Kingdom shaft tombs in the lower necropolis (Seidlmayer 1990: 217; Orel 1993: 439; Bommas 2012a: 52).²⁴ Kessler recognized that Garstang had ignored many of the smaller pit tombs in the lower necropolis and proposed that some of these may have been the burials of the earlier nomarchs – thus accounting for the current lack of nomarchial burials certainly dateable to the First Intermediate Period (1981: 131-132). While it is important to focus on those tombs with texts that allow for a genealogical plan to be made, those with damaged reliefs or a lack of inscriptions should not be ignored. The uninscribed tombs of the upper necropolis may have belonged to the families of the administrative elite during the Middle Kingdom, or have belonged to officials whose names are simply lost (Bommas 2012a: 45). Garstang believed that one son of Khnumhotep II, Neheri, was buried in the lower necropolis (shaft-tomb 360; Garstang 1907: 118 and 223, see below). If this was indeed the case then the social status of those buried in each of the two necropolises must be reanalysed and a new chronological development considered.²⁵

²⁴ Brunner proposed that BH 13 was constructed in the style of an Old Kingdom rock-cut tomb perhaps confirming the early use of Beni Hasan's upper necropolis (1936: 67). However, this would entail that the tomb would have been reused for the scribe, Khnumhotep, to whom the façade inscription identifies as its owner (BH I: 75). The tomb is also much larger than those at Nuerat and may indicate that this tomb was simply unfinished at the time of Khnumhotep's burial. The entrance includes a very small forecourt, placing tomb 13 later, perhaps in Hölzl's type 2a, 2b, or even 3. Schenkel dated BH 13 to the late 12th Dynasty, due to its philological peculiarities, again implying either a reused or unfinished monument (1962: 80). Because of these issues, tomb 13 has been left off figure 3.14.

²⁵ This is particularly poignant if the identity of Khnumhotep, the royal scribe and owner of tomb 13 in the upper necropolis, is considered (BH I: 75). However, Seidlmayer (1990: 232) and Bommas (2012a: 53-54) have both cast doubt on the identification of Neheri with tomb 360 in the lower necropolis due to uncertainty of Garstang's find-spot records.

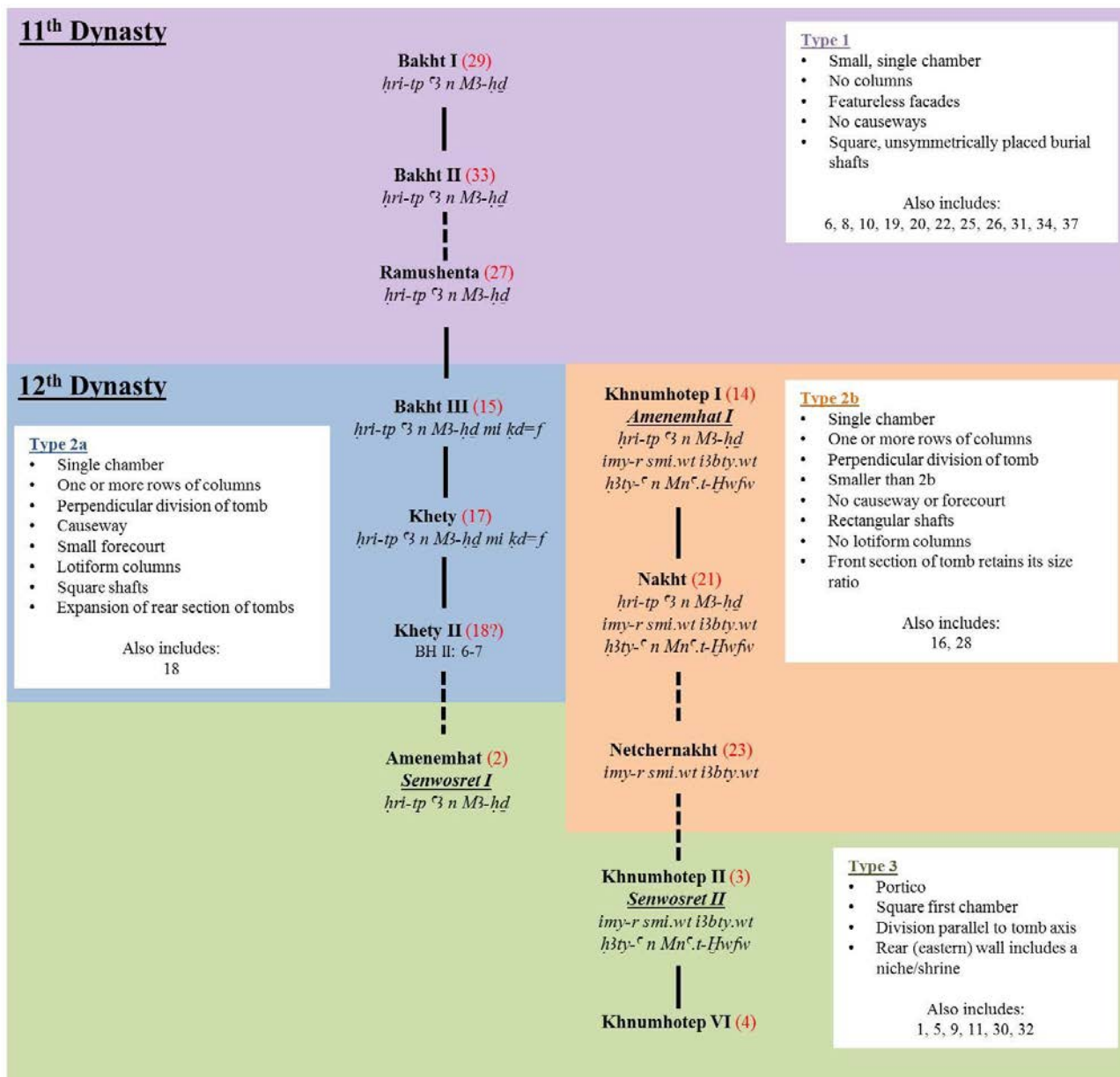


Figure 3.14: The chronological development of tombs in the upper necropolis of Beni Hasan.

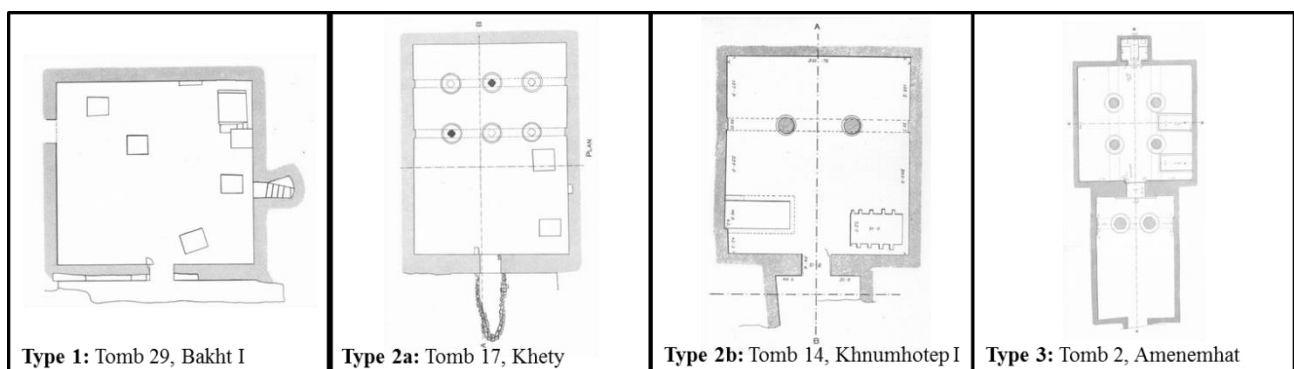


Figure 3.15: Hölzl's sub-divisions of the tombs of Beni Hasan, not to scale (1992: 280-281) as presented through tomb plans in Newberry 1893a/b.

The distinguishing titles held by those named individuals in the upper necropolis are given beneath their names in figure 3.14, while a royal name is provided, if recorded, underlined. The number of each tomb, as published, is given in red following the name. A solid line indicates a direct familial link is given in the preserved texts, usually father to son, while a dashed line simply indicates the progression of title. Brunner arranged the large uninscribed tomb number 18 immediately following the construction of tomb 17, which has been included in the plan proposed here (Brunner 1936: 68-69). Tomb BH 18 is uninscribed, however Khety [BH 17] clearly mentions a son, also named Khety, who could be identified with BH 18 (Brovarski 2010: 48-49).²⁶ This son is recorded as the heir of Khety I, and thus seems to have not finished his tomb by the time of his burial (BH II: 61, Pl. 17). By adding Khety (II) it allows the arrangement of tomb development proposed by Hölzl to continue in two strands reflecting two separate families of administrators. This division of the administration reflects the assumed division of the nome into two different districts by Amenemhat I, and recorded in the autobiography of Khnumhotep II. Gradually the nomarchy returned to the Bakt family line through Amenhemhat (BH 2), while the title of Overseer of the Eastern Desert was retained by the Khnumhotep family line residing in Menat-Khufu.²⁷

Chronology of the lower necropolis

While the dating of the rock-cut tombs of the upper necropolis has proven debatable, analysis of the chronological development of the lower necropolis is made more difficult due to the lack of inscriptional evidence and the subsequent dispersal of finds

²⁶ This proposal is also in agreement with the suggestion by Brovarski that Khety II [BH 18] oversaw the completion of his father's tomb [BH 17]. Khety II then squeezed his tomb between BH 17 and BH 19 in order to retain the familial connection to his father's chapel (Brovarski 2010: 48-49).

²⁷ A discussion of the titles and genealogy of the Beni Hasan ruling families can be found in section 6.3.

by Garstang (see above). Willems' study of coffins from the shaft-tombs implied a general south to north development of the site from the early Middle Kingdom through to the late 12th Dynasty (1988: 64-65). However, Seidlmayer felt that the site expanded from a central area towards the south, and subsequently northwards following an analysis of ceramic types (1990: 230). A reanalysis by Bommas (2012a), following on from work conducted by Sara Orel (1993), indicates that the cemetery is much more complex than the horizontal stratigraphy suggested previously. Many of the ceramic forms are complicated by the regional style known at Beni Hasan, which only adopted the 'classic' Middle Kingdom royal residence style very late in the cemetery's use (Kemp and Merrillees 1980: 51; Bourriau 1981: 60; 1988: 134). Likewise, numerous usurpations of burial shafts entails that the burial assemblages discovered within the tombs do not necessarily correlate with the physical development of the area (Orel 1993: 216; Bommas 2012a: 51). Bommas' reanalysis of the cemetery highlights its use from the Old Kingdom²⁸, right through to the 18th Dynasty, with the most intensive activity through the early Middle Kingdom – likely correlating with the construction of the rock-cut tombs of the upper necropolis above. However, as introduced above, correlating the lower necropolis tombs with those of the upper necropolis terrace can also prove problematic. Only two tombs, *imy-r M3i* [shaft-tomb 500] and *imy-r pr Ntrw-htp* [shaft-tomb 75], can be associated with some certainty to BH 3 in the upper necropolis (Garstang 1907: 53, Seidlmayer 1990: 232; Bommas 2012a: 53-54). Garstang's recording of the discovery of a stela of one *Nhri iri n T3.t* near to shaft-tomb 360 is not certain. If this is the case then it may be possible to equate Neheri with a similarly named individual in BH 3, a son of Khnumhotep II and his second wife, the female treasurer Tchat (Ward 1984). Shaft-

²⁸ Bommas points out Garstang's tombs 481 and 482 as dating to the Old Kingdom, while 519 certainly dates to the First Intermediate Period, and 684 to the early New Kingdom (2012a: 52).

tomb 360 is located beneath the upper necropolis tomb of Netchernakht [BH 23], which was decorated and completed by Khnumhotep II (BH II: 29). This is the only indication, out of 888 shaft tombs, whereby a shaft-tomb in the lower necropolis may share some connection with a rock-cut tomb in the upper necropolis constructed directly above it. However, Garstang himself noted that there appeared to be no correlation between the names of individuals interred in the lower necropolis with those depicted in the decoration of BH 2 and BH 3 (1907: 52-53). There are other social implications for the location of burial shafts in the lower necropolis that do not necessitate proximity to the rock-cut tombs in the upper necropolis; in fact, it is almost certain that construction of the shaft burials began much earlier than those in the terrace above and were perhaps the reason behind the regional officials choosing this location for their tombs. Garstang, when excavating the lower necropolis, already noted that many of the shaft-tombs were arranged in rows which could be indicative of social groupings, or the activity of shaft diggers hoping to sell them to clients (Garstang 1907: 47; Seidlmayer 1990: 218). These groups are most visible in the central and southern areas of the cemetery – the most intensively used part. In his analysis of the First Intermediate Period shaft-tomb 420, Bommas notes that the tomb was surrounded by a number of contemporary shafts which may have formed a collective grouping comprising of an outer and inner circle (2012a: 63). These tombs were constructed before the rock-cut tombs of the upper necropolis above were begun and so no relationship to the regional administration of the Middle Kingdom can be assumed. In fact, the First Intermediate Period burials studied by Bommas indicate no social differentiation (2012a: 64), which raises questions as to where the regional high officials were interred during this period, or whether it was not deemed necessary to mark their social rank in any way.



Figure 3.16: A section of the lower necropolis plan published by Garstang. Rows of shaft-tombs excavated in the lower necropolis, perhaps indicative of mass production and funerary industry, can be seen to the left. While, a circular arrangement of tombs preserved around First Intermediate Period shaft 420 shown by Bommas to reflect societal groupings can be seen to the right (2012a: 63). Plan from Garstang 1907: Pl. 3 and 4.

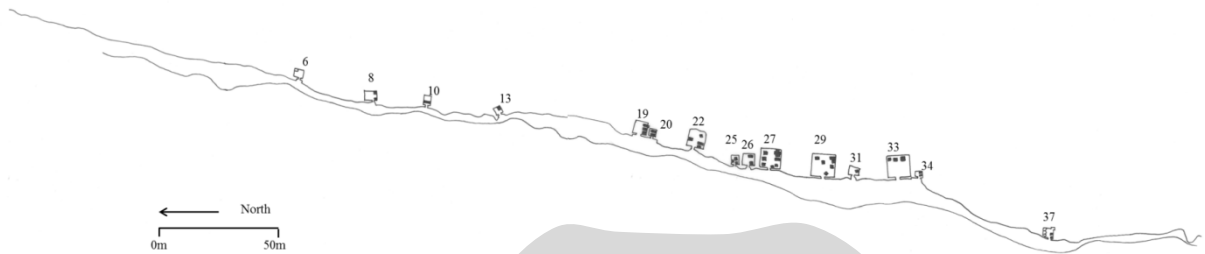


Figure 3.17: The development of the Beni Hasan necropolis; Hözl Type 1 (11th Dynasty)
Plan adapted from BH I: pl. 2, and Garstang 1907: pl. 3-4.



Figure 3.18: The development of the Beni Hasan necropolis; Hözl Type 2a/b (12th Dynasty)
Plan adapted from BH I: pl. 2, and Garstang 1907 pl.: Plates 3-4.

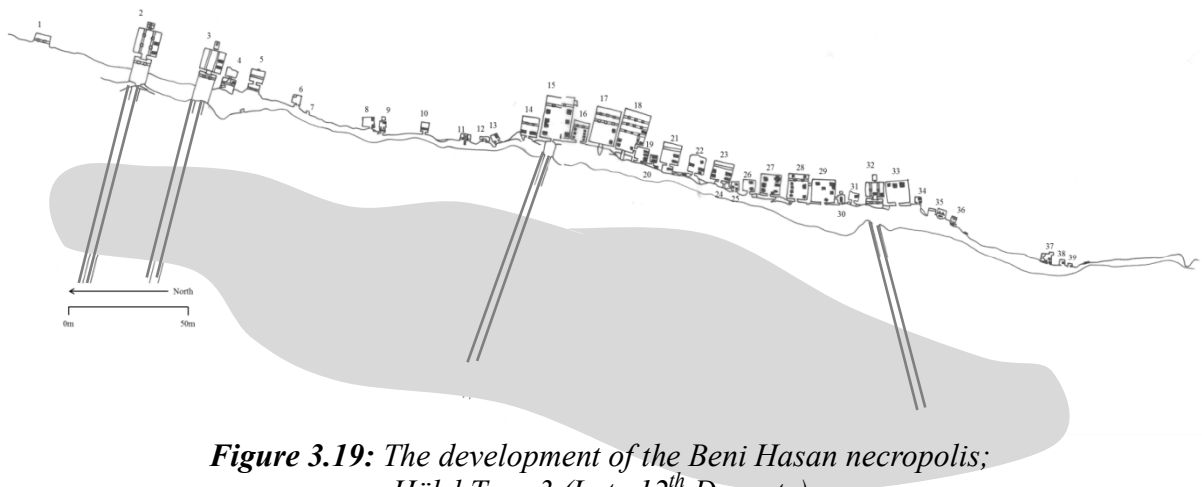


Figure 3.19: *The development of the Beni Hasan necropolis; Hölzl Type 3 (Late 12th Dynasty)*
Plan adapted from BH I: pl. 2, and Garstang 1907: pl. 3-4.

Chronological summary

It is clear that, while an absolute date for the entire Beni Hasan necropolis is not the topic of this thesis, a general proposal for its development can be suggested. The relative chronological plan of the upper necropolis has been presented in figure 3.14, and roughly follows the development suggested by Hölzl (1992). Aside from the overlap of two ruling families, it also follows the genealogical order suggested by Newberry (BH II: 5-16). Figures 3.17-3.19 present the relative spatial development of the Beni Hasan upper necropolis displaying its sporadic use in its earliest phases, concentrating construction in the central and southern areas at its peak usage, and subsequently utilising areas to the north and infilling in its latest phase. As Bommas (2012a) has shown, the initial phases of the Beni Hasan lower necropolis during the late Old Kingdom and First Intermediate Period were centred on groupings of shafts, which were subsequently reused or usurped over time. The spaces between the groups were infilled with rows of shafts as usage intensified, confusing any previous connections that may have been visible in the cemetery plan. As space in the lower

necropolis became restricted, shafts were constructed to the north. Orel dates this latest phase to the reigns of Senwosret I to Senwosret II, but highlights that only 36 shaft-tombs are recorded north of BH 7, roughly 4% of the shafts excavated by Garstang (Orel 1993: 443). This arrangement would therefore coincide with Seidlmayer's suggestion that development began in the central and southern areas before stretching northwards (1990: 233). However, this can only be useful for understanding the pattern of reuse, rather than the initial construction phases of the shafts.

In conclusion, the Beni Hasan necropolis includes burials dating from the Old Kingdom through to the 18th Dynasty, although its main phase of use dates to the 11th and 12th Dynasties. Figure 3.17 roughly corresponds to Hözl's type 1 tomb group and can be dated to the late 11th and start of the 12th Dynasty. Figure 3.18 follows with Hözl's contemporary types 2a and 2b tombs, dating to the early 12th Dynasty reign of Amenemhat I. Finally, figure 3.19 corresponds to the later 12th Dynasty and Hözl's type 3 tombs. This final phase covers the reigns of Senwosret I, Amenemhat II and Senwosret II. It is unlikely that three consecutive regional rulers could have held control in the Oryx Nome during the reign of Amenemhat I, although overlap between their periods of rule may explain the apparent multitude of title holders. There may also be an argument that Amenemhat replaced some regional rulers during his reign, thus increasing the numbers of known nomarchs during the early years of the 12th Dynasty.

Burial practice in the upper necropolis

As mentioned above, the upper necropolis rock tombs of Beni Hasan were the first monuments to be chosen for investigation as part of the Archaeological Survey of

Egypt by The Egypt Exploration Fund. From 1890-1893 Percy Newberry, together with George W. Fraser, Marcus Blackden, and Howard Carter, recorded the tomb plans, decoration, and texts. The four volumes produced from this survey have become the definitive reference work in the study of the tombs and will be used, alongside more recent studies, throughout this thesis, particularly when reanalysing the society of the Oryx Nome in chapter 6. This wealth of studies utilising the tombs of Beni Hasan influenced the choice of this region for study in this thesis. However, many of these studies have not taken into account the wider geography of the nome, or indeed the changes in natural environment throughout the same chronological period. One of the main aims of chapter 6 is to utilise these studies and to ground them within the physical locality that will be explored over the course of this thesis.

The development of the tombs and their plans can be seen above and in figure 3.15. The shaft arrangement within them also developed through their use. In Hölzl's type 1, the shafts are square and arranged haphazardly around the tomb chambers. As the tombs developed a more linear axis the shafts became rectangular and arranged symmetrically along the axis, this begins in type 2b and continues in the main chamber into type 3 (Hölzl 1992: 280). When the shafts were excavated by Newberry, they were found to contain very little of the original burial assemblages (BH II: 79-81). From the short descriptions given by Newberry it may be concluded that they were quite typical of the local style, as exemplified by those undisturbed burials of the lower necropolis (see below and section 6.2.2). Burials were furnished with wooden models and pottery often containing offerings. The deceased were placed inside wooden coffins with their heads to the north. The prevalence of disturbance in the

upper necropolis is no doubt due to the reuse of many of the tombs as dwellings throughout antiquity, as evinced through the discovery of graffiti in the tombs.²⁹

Many of the tombs are highly decorated with scenes of daily life and funerary processions honouring the deceased.³⁰ Studies, such as Kamrin's *Cosmos of Khnumhotep II at Beni Hasan* (1999), or Rabhel's *Das Grab des Amenemhet (jmnj)* in *Beni Hassan oder der Versuch einer Symbiose* (2006), have attempted to interpret these scenes as part of a wider discussion on concepts of religion and ideology. This is not an aim of this thesis – instead the aim here is to interpret these scenes as Egyptian approaches to understanding the world around them, and documenting their daily concerns and activities. Kanawati and Woods have previously summarised the decoration at Beni Hasan by stating, 'the depictions would seem to be based on the tomb owner's/artists life experience and observation of the world around them' (2010: 1). Maitland has similarly argued that the scenes 'encapsulate a provincial elite worldview' (2015: 210). Using these studies, this thesis will not exclude any ideological, religious, or deeper meanings, but simply attempts to understand them as they appear, as a reflection of the Oryx Nome, the actors associated with it and their experience of their surroundings (see chapter 2 for the methodology and approaches used in this thesis).

Burial practice in the lower necropolis

The lower necropolis of Beni Hasan was investigated most thoroughly by John Garstang during 1902-04. His publication reveals that he excavated 888 burial shafts in the area immediately beneath the terrace of the upper necropolis (Garstang

²⁹ Newberry discovered Greek inscriptions in tomb 32 indicating that they were accessible already very early in antiquity (BH II: 81).

³⁰ A number of studies are useful when investigating the decoration in the tombs of the upper necropolis: Newberry BH I and BH II; Shedid 1994; A Baines 1995; Kamrin 1999; Rabhel 2006; Kanawati and Woods 2010; Maitland 2015.

1907:46, Pl. 3-4).³¹ The shafts are constructed in an area about 30m wide on the low desert escarpment and stretch roughly 560m north to south (Seidlmayer 1990: 218). Each burial shaft measures around 1m square, and descends between 3m and 10m (usually between 5m and 7m) into the solid bedrock. Each shaft terminated in a chamber measuring just large enough to contain a coffin and small funerary goods, generally about 2m long, and 0.8m wide (Garstang 1907: 45). A number of shafts deviated from these general observations in cases when the tomb had been reused, or left open to accommodate further burials. Garstang drew attention to some changes in the measurements of the shafts themselves, implying that in some cases the north-south length of the shaft could be higher than that of the east-west measurement. It is possible that this correlates with Hölzl's observations in shafts in the upper necropolis, and the development between type 1 and type 2 in particular. However, confirmation of this would require further research and reanalysis of the necropolis.

The burials of the lower necropolis are most concentrated in the centre of the cemetery. In some cases the tombs are arranged in clusters, which may indicate communal or family groupings (Bommas 2012a: 63; similar to those found at Nuerat, De Meyer et al. 2011: 682), in other instances the tombs are organised into rows (see Garstang 1907: pls. 3 and 4). Both Garstang and Seidlmayer equate these rows to known practices of construction in advance of purchase and retained as stock forming an element of the funerary industry of the area (Garstang 1907: 47; Seidlmayer 1990: 218). Garstang's findings of stelae around the site, and a possible superstructure at tomb 290 (1907: 51-52; Seidlmayer 1990: 218), may indicate that the lower necropolis was once covered in small offering shrines, creating a ritual focus in the landscape from which the local community of the nome could honour their ancestors.

³¹ Garstang's numbering system is undoubtedly flawed, as Seidlmayer noted, tomb number 187 appears four times and at least 15 tombs are numbered more than once (Seidlmayer 1990: 220).

Garstang's plan reveals many surface features which were not discussed further in the publication, and which have now become victims of erosion (Seidlmayer 1990: 218) or possibly illicit excavation.



Figure 3.20: *A view northwards across Beni Hasan showing no traces of surface monuments in the lower necropolis, though the steep gradient is quite apparent.
Image by author.*

Ten of the burials in the lower necropolis were found undisturbed and contained not only the body of the deceased, but the funerary goods they were interred with (Garstang 1907: 211-244). The bodies were not mummified, but were wrapped tightly in linen and laid to rest on their left sides, with their heads to the north facing east. Most bodies were found interred within one box-coffin, but in one case an anthropoid coffin was discovered (Garstang 1907: 173-174, figs. 180-181).³² They were likely associated with the high elite interred in the upper necropolis, either as

³² The two coffins of Userhat are now separated. The external box coffin is kept in the Garstang Museum, Liverpool (E. 512), while the anthropoid coffin is preserved at the Fitzwilliam Museum, Cambridge (E.88.1903), Bourriau 1988: 90-92.

family members, or the officials working within the domain during the Middle Kingdom and depicted on the tomb walls of the upper necropolis (Seidlmayer 1990: 232). The tomb goods were similar to the fragments discovered by Newberry and Fraser in the shafts of the upper necropolis, although in this case they were more intact. Tooley's analysis of the wooden models discovered by Garstang in the tombs of the lower necropolis reveals the extent of the corpus of regional types present at Beni Hasan (Tooley 1989: 43-49). They are distinct for their regional style; dynamic in their activities, but relatively crudely modelled, colourful painted decoration and short cropped hairstyles. Tombs frequently also contained models combining, or depicting individually, scenes of butchery and/or sacrifice, brewing, and baking. Occasionally processions of offering bearers would also occur in groups – although more frequently as individuals. Granary models, often with grain included, also appear in typical burials from the lower necropolis. The significance of these models, their groupings, and the similarities with painted scenes in the upper necropolis will be presented as part of a social study in chapter 6. Burials were also furnished with sandals, headrests, and ox legs, while bodies are often adorned with jewellery. Ceramic offerings occurred frequently throughout the Beni Hasan cemetery, although were poorly published by Garstang (Seidlmayer 1990: 218). Garstang revealed that a typical burial in the lower necropolis included a number of specific items (see table 6.2, chapter 6) however, this was based on just 10 out of 888 shaft-tombs discovered and in many cases there were vastly differing goods included in the burial.



Figure 3.21: *In this three-dimensional satellite image from 2005 it is possible to see the upper terrace of rock tombs overlooking the cultivation and the 888 tombs covering the lower slopes of the cliffs. This image looks east into the eastern desert. The various wadis scarring the desert plateau are clearly visible, as well as the old ruined medieval settlement of Beni Hasan on the lower desert slopes to the south of the tombs.*

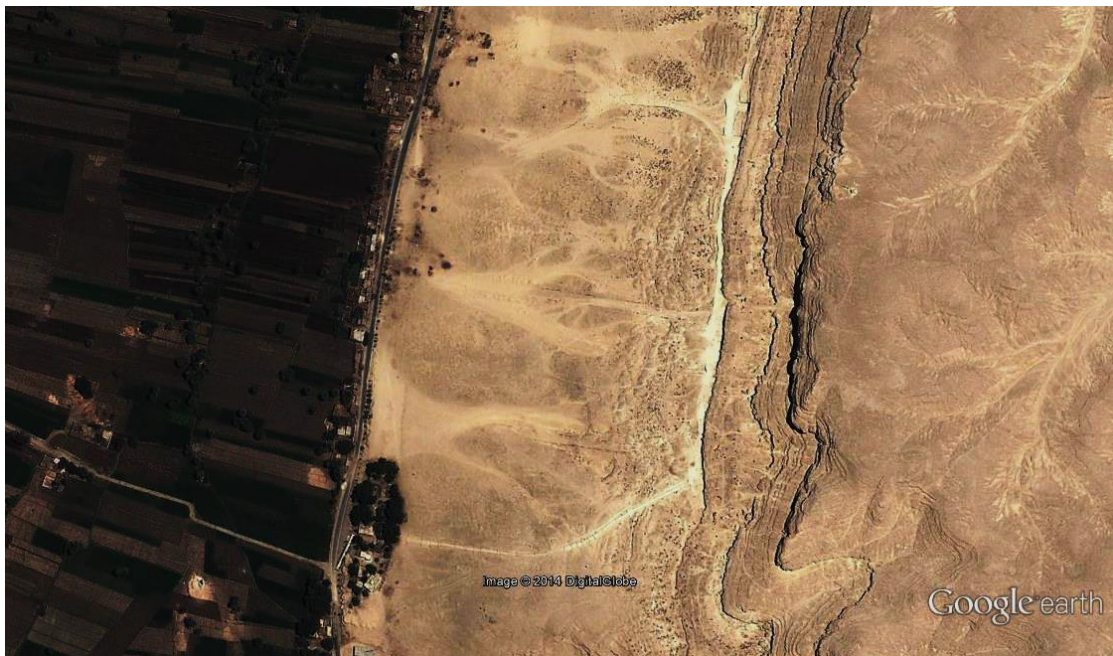


Figure 3.22: *This satellite image from 2011 clearly exhibits how the Beni Hasan necropolis lies along the eastern desert edge. The terrace of rock tombs is indicated by a lighter mark on the desert cliffs. The rock-lined causeways leading to some of the rock-cut tombs can be seen running across the lower slopes and through the cemetery of shaft tombs excavated by John Garstang in 1907.*

3.4.4 Balansura

The necropolis

Balansura is a village on the east bank of the Bahr Yusuf, 20km south-west of El-Minya. The low western desert slopes begin immediately on the west bank of the Bahr Yusuf on which is located a modern cemetery serving the local population. Recent satellite images reveal long linear settlements straddling the low desert edge stretching north and south from Balansura. Over recent decades – particularly visible since 2004 in satellite imagery – alluvial areas have begun to invade the low desert areas. This is also mirrored by expansion of quarrying in this area. About 2km to the south-west of Balansura village is situated a vast necropolis of the Pharaonic Period.³³ The tombs are situated on the shallow desert slopes, as well as in the lower desert beneath them. No systematic excavation has ever been carried out here and so the dating of the necropolis or the remains preserved from there is difficult to ascertain. No superstructures are visible in satellite images today, although Kaiser reported observing a large accumulation of rubble atop the eastern desert hill which he interpreted as a possible guard post above the necropolis (1961: 29). No further new discoveries have been made, although looting pits visible in the period between 2011 and 2014, may indicate that there are new findings yet to be made in this area.

Very few registered finds have been made at the site, and never through systematic excavation and exploration. Kessler lists 14 finds from the necropolis, largely through illicit digging and nineteenth-century collecting (1981: 161-168).³⁴ The most significant finds so far have been a pair of statues dated to the 18th Dynasty by Daressy (1919: 56). They were dedicated by a governor, Mahu, for his father, Ani,

³³ Kessler gives a measurement of 2-3km along the desert edge for the cemeteries located west of Balansura (1981: 162).

³⁴ A Roman Period plaster mummy mask, said to be from Balansura, is preserved in the Penn Museum (E2148).

mayor of Neferusi, and Mahu's mother, Mut-Neferet. Both individuals hold religious titles in the temple of Khnum, Lord of Her-wer which gives greater confidence to locating this settlement in the area of Balansura (see section 5.2). Among the other finds were a number of ivory wands and figurine fragments, which led Kessler to date the activity at Balansura to the 13th Dynasty and later into the New Kingdom (1981: 167).

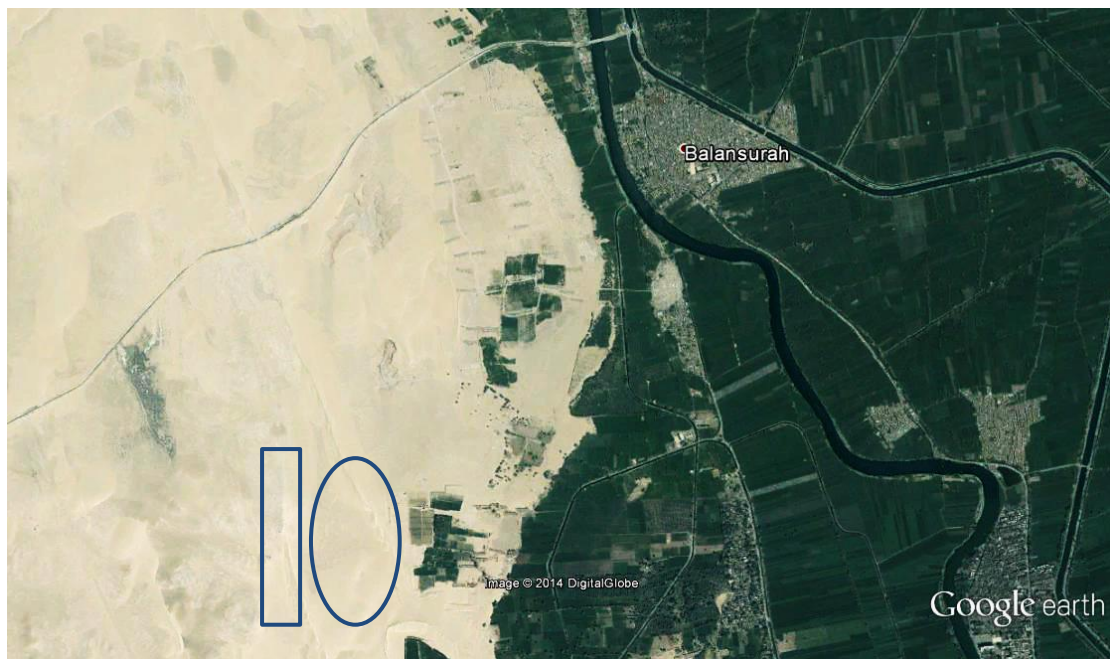


Figure 3.23: The town of Balansura in Middle Egypt situated on the east bank of the Bahr Yusuf. The ancient Egyptian necropolis area is situated roughly 2km to the south-west of the modern settlement in the low desert area. The rectangle indicates the tombs located in the desert plateau, whilst the oval indicates those shafts located in the low desert slope beneath. This image, from Google Earth, was taken in 2004.



Figure 3.24: This image of the same area as shown in figure 3.23 above was taken in 2014. Substantial expansion of agricultural areas into the desert now threatens the remains at Balansura. The rapid increase in quarrying activity is also visible to the north of the cemetery. The inset image from 2014 indicates possible evidence of looting at the site since 2011.

3.5 The tells of Middle Egypt

The entire Egyptian Nile floodplain is littered with ancient settlement mounds known as tells or koms. These are usually very visible in the valley and are indicated through an analysis of elevated terrain levels (usually around 1-3m higher than the surrounding area, Hillier et al. 2006: 3), or road and field patterns indicating a palimpsest where the mound was once marked clearly. Due to substantial settlement expansion since the 1960s (following the construction of the Aswan High Dam), these higher areas of the flood plain are now less visible due to expansion into the lower valley areas (Parcak records a 10-200% increase in urban area over the last 30 years alone, 2008: 65). However, a number of tell sites are visible in the region of study for this thesis and are highlighted in figure 3.25. Although this map indicates a great many tell sites, this should not be taken as indication of a densely populated area. There is no chronological analysis to complement this illustration; instead, the volume

of tell sites may reflect the regular waxing and waning of settlement sites over time. Likewise, the movement of people in response to changes in the natural environment can also result in increased numbers of tells as well as an increase in their size, see for example the tell sites of ancient Memphis represented by Davies and Friedman (1998: 42-43).



Figure 3.25: This satellite image indicates the most prominent tell sites within the region of study. The orientation of a tell can be indicative of previous Nile branches that once flowed past the settlement (Hillier et al. 2006: 3).

3.6 Summary

As is apparent from the brief presentation of the major monuments and archaeological remains visible in the floodplain around the area of the Oryx Nome today, the region was a prosperous locality during the Middle Kingdom with a certain degree of regional autonomy. Chronologically the cemeteries can be arranged as presented in table 3.4.

Site	Main period of activity
Nuerat	3 rd – 4 th Dynasty
Zawiet Sultan cemetery	3 rd – 6 th Dynasty
Beni Hasan	11 th – 12 th Dynasty
Balansura	13 th – 18 th Dynasty

Table 3.4: *The chronological arrangement of cemeteries in the Oryx Nome from the Old Kingdom through to the New Kingdom.*

The geographical developments presented in table 3.4 are a reflection of changing political and social situations throughout the periods in question. Why the rulers of this nome chose to change their burial grounds over time is just one consideration of this study, in order to understand what political or natural events may have motivated these changes.

CHAPTER 4 THE NATURAL ENVIRONMENT

As outlined in the methodology presented in chapter 2 it is vital to understand the natural environment of Egypt before embarking on an analysis of the cultural and social elements that exist within it. This chapter will illustrate the formation and (re)development of natural features in the Egyptian Nile Valley, particularly in the area of the ancient Oryx Nome, in order to demonstrate how this ‘work-in-progress’ approach contributes to an understanding of how physical changes occurring within an area directly affect the political and social development of the region.

4.1 Early Nile development

The Nile’s long history mirrors its enormous length,¹ having existed for at least 6 million years. However, it is only in the last 800,000 years that the Nile has existed in its current form (Sampsell 2003: 32). A brief introduction to the early formation of the river will serve to establish an appreciation for the subsequent ecological development of Ancient Egypt that will follow in the following chapters.

Time period	Years ago	Nile
Holocene	10,000	Modern Delta Neonile
	12,000	
Pleistocene	20,000	Gamma Neonile
	70,000	Beta Neonile
	200,000	Erratic Nile
	400, 000	Alpha Neonile
	800,000	Prenile
	1.8 million	Protonile
Pliocene	5.4 million	Paleonile
	7 million	Eonile

Table 4.1: *The various stages in Nile development as outlined by Said 1993: 36-55.*

¹ The Nile is over 6500km in length and has a catchment area of over 3 million km² (Woodward et al. 2007: 261; Parcak 2010: 6).

Eonile

The original formation of the Nile Valley can be traced back 7 to 6 million years ago. At this time the connection between the Mediterranean and the Atlantic Ocean through the Gibraltar Strait was severed by a tectonic movement that raised the sea bed (Sampsell 2003: 29). Over thousands of years the Mediterranean dried up due to high evaporation rates caused by a warmer climate. This evaporation caused precipitation to fall over the surrounding highlands, such as in the elevated Eastern Desert of Egypt. This rain carved deep wadis into the hills and subsequently flowed north into the drying Mediterranean.² The river flowing within the valley at this time is known as the Eonile. As the Eonile flowed north to the sea it incised its riverbed to meet with the reducing level of sea water at its mouth, eventually carving a deep canyon 170m below present sea-level at Aswan and up to 4000m below sea-level in the northern delta (Hsü et al. 1973: 243; Said 1993: 38; Woodward et al. 2007: 265). The Eonile at this time was a locally supplied river and had no connection to the African sub-continent beyond the hard Nubian sandstone massif, but was powerful enough to incise through some other obstacles, such as a sandstone barrier crossing the river valley at Gebel el-Silsila.

Paleonile

Around 5.4 million years ago further tectonic shifts permitted the Mediterranean to resume its connection with the Atlantic Ocean causing it to rapidly fill with seawater. This water then infiltrated south into the canyon formed during the period of the Eonile, as far inland as Aswan. Aggradation between 5.4 and 2 million years ago

² Sampsell explains that the uplift of the Red Sea hills caused the wadi streams to increase their erosive power as they flowed into a juvenile Nile basin (a process known as rejuvenation), depositing gravels in areas north of modern Cairo (2003: 28).

caused this canyon to silt up and form an estuary environment with another locally sourced river, the Paleonile, flowing through the newly formed floodplain (Sampsell 2003: 30). The sediment carried by this river originated from localised areas of Egypt, which were heavily vegetated at the time, and account for 70% of the deposits carried by the river during its existence (Said 1993: 40) – they have been measured up to 1.5km deep in the delta region. This was probably the wettest period in the Nile's history and produced the most vigorous river within the Egyptian valley, responsible for the majority of sediment in the floodplain as well as the rugged wadi incised desert edges still visible today.

Protonile

During the early Pleistocene (2-1.8 million years ago to 800,000 years ago) Egypt suffered an extended period of aridity. Precipitation across the valley ceased and vegetation died, resulting in desertification of the surrounding environment and causing Aeolian (windblown) sediments to cover the valley. This period saw two wet phases during which only the first produced a flowing river, the Protonile. The second is known as the Armantian Phase and eroded the Eastern Desert hills, producing alluvial fans extending into the valley floor (Sampsell 2003: 33). While this second period produced no perennially flowing river in the Nile Valley, the buried alluvial fans preserve the first evidence of human habitation in the valley (Said 1993: 41).

Prenile

It is not until 800,000 to 700,000 years ago, during the middle Pleistocene, that a connection with the African subcontinent was first formed. Tectonic movements to the south elevated the Ethiopian Highlands and redirected the waters north, rather

than towards the Red Sea as must have been the case earlier. These waters, the modern Blue Nile and Atbara, carved a course through the sandstone barrier of Nubia and connected with the ephemeral river of the Egyptian valley, forming the Prenile. This forceful river carried sediments from the Ethiopian Highlands all the way to the newly forming Nile Delta, depositing them along the flat floodplain as it flowed northwards. These sandy and gravelly deposits are visible today, particularly in the delta, and are known as 'turtle-backs'. Coring and analysis of wells has found that the thickest deposits of these gravels are found in areas west of the current Nile branch (measuring 250m deep in the El-Minya region), indicating that the Prenile flowed west of the current course of the Bahr-Jusuf in the valley but then to the east of the delta (Said 1993: 43).³

Alpha Neonile

During the Early Paleolithic (400,000 years ago) the Nile basin experienced a wet interval, the Abbassian Pluvial, which resulted in a locally fed river in the Egyptian valley draining from the surrounding hills. This period also saw the African connection temporarily obstructed. However, during a short arid phase the connection with Africa was re-established and a single river flowed through the valley, known as the Alpha Neonile. The ephemeral rivers existing before and after the Alpha Neonile were formed during periods known as Abbassia I and Abbassia II (Said 1993: 48-49). These wet periods promoted the formation of a high water table in the western desert and the appearance of shallow lakes and savannah flora and fauna, this in turn

³ The gravel and sand brought by the Prenile are sandwiched between layers of impermeable clay, thus trapping groundwater within it. Sampsell recorded that this groundwater source can be reached by wells just 40m deep and has been used to provide Egypt with clean water (2003: 32). This is one reason for the survival of settlements located on the western desert edges.

resulted in the appearance of nomadic groups exploiting areas around the perimeters of the Nile Valley in the areas of modern Egypt's desert fringes.

Erratic Nile

A period of erratic Niles flowed during the early Middle Paleolithic (200,000 years ago) locally fed from rains during the Saharan Pluvial phase. These rivers resumed an African connection, although the supply from central Africa was irregular. The glaciation during the Ice Age caused the sea-level in the Mediterranean to drop, resulting in the erratic Niles incising their floodplain to almost the modern level (Said 1993: 49).

Beta and Gamma Neoniles

Two rivers flowed in the Egyptian valley during the late Middle Paleolithic to Late Paleolithic known as the Beta (70,000 – 25,000 years ago) and Gamma (20,000 – 12,000 years ago) Neoniles.⁴ Both were supplied by waters from the Ethiopian Highlands as a more arid climate prevailed over Egypt and Nubia. This meant that the rivers were dependant on monsoonal rains during summer months and could perhaps have run dry during the winter period, similar to the Atbara of today (see figure 4.10). Both of the rivers had low discharges, but high carrying capacities resulting in braided streams within a wide floodplain (Butzer 1976: 16-17; Said 1993: 51; Brown 1997: 7).

⁴ This period coincides with the period of the last glacial maximum (Brown 1997: 7).

Modern Delta Neonile

At the end of the last Ice Age (12,500 years ago) the glaciers on the Equatorial Lakes Plateau began to melt. This, coupled with increasing precipitation, caused Lake Victoria and Lake Albert to overflow their banks. These waters overflowed into the Sudd region and northwards to form the course of the modern White Nile, subsequently joining the Blue Nile and Atbara from the Ethiopian Highlands (Parcak 2010: 8). This event strengthened the African connection creating the River Nile seen today. The White Nile continues to supply a constant flow of water maintaining a perennial river, while the Blue Nile provides a seasonal supply contributing over 54% of the annual discharge and the majority of the sediment load (see section 4.2.3). The Holocene Wet Phase (10,000 – 4,500 years ago) meant that this new river was more forceful than that of today and incised its bed in much of the valley, eroding to roughly the modern level. It is also during this period that settlers inhabiting the surrounding areas began to move into the Egyptian Nile Valley, eventually settling in much of the floodplain by c. 2450 BC, the end of Egypt's 5th Dynasty (Said 1993: 53-55).⁵

⁵ The increasing aridity and shifts of the ITCZ recorded (see section 4.2.2) by Marriner et al. confirm that the desert areas became increasingly inhospitable around this period (2012: 77).

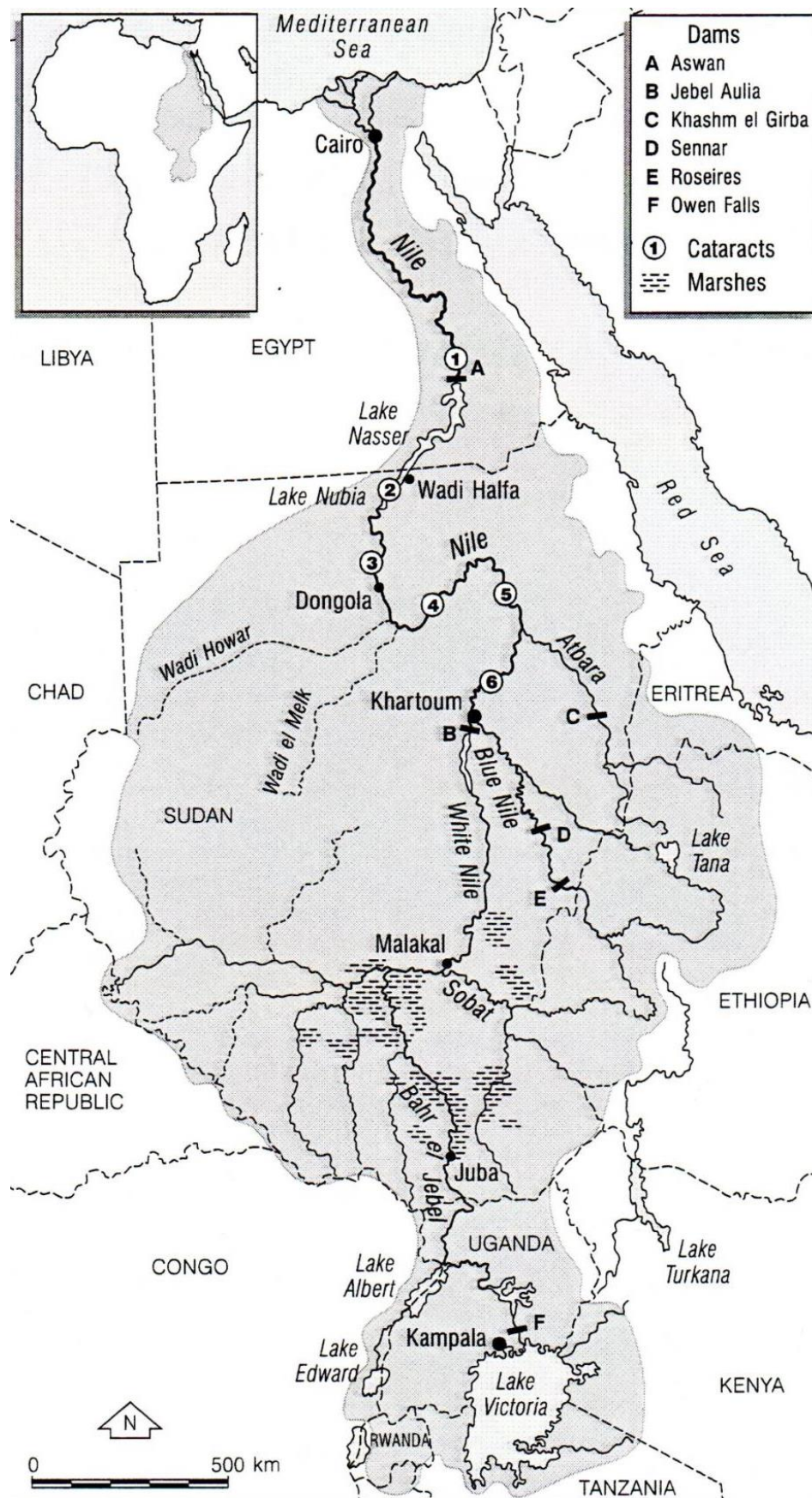


Figure 4.1: *The Modern Delta Neonile. Woodward et al. 2007: 262.*



4.2 Natural processes and landforms

For the purposes of clarifying the methodology (chapter 2, figure 2.3) used in this thesis it is necessary to distinguish between natural ‘processes’ and natural ‘forms’. Below are given a series of natural processes that occur within the Nile Valley, they are certainly not exhaustive but serve to exhibit some of the major issues affecting the natural environment in question. ‘Process’ has been taken to refer to actions that take place within the land that may result in the formation of a more permanent ‘form’. For example, the Nile inundation is a process that results in the creation of floodplain and levee forms. These processes continue to affect the natural environment of Egypt over time and thus remain significant to the considerations of the human inhabitants. Almost all of the natural processes and landforms discussed here are interrelated and co-dependent on one another. Therefore, in some instances references will be made to other sections to allow for related elements to be clearly explained. It is also notable that some formations may in fact be the result of a number of processes which all act together to create a landform. Again, to use the example of the inundation as a process – this process is dependent on the climatological processes of precipitation and rising temperature (causing snow melt) which in turn result in a rise in the level of the Nile (the inundation). The inundation also causes a number of further processes to occur, such as erosion and river movement. All of these are explained more fully below, with relation to their associated landforms.

4.2.1 Geological processes and landforms

Tectonic processes include anything that occurs within the Earth’s crust such as earthquakes, volcanic eruptions, tectonic shifts etc. As outlined above when discussing the Pre-nile tectonic movements, shifting of the Earth’s crust has

contributed toward the formation of Egypt's current morphology and the supply during summer months of an annual inundation originating in the Ethiopian Highlands. Later movements also resulted in the tilting of the Nubian sandstone massif which at times has halted the rivers flowing north to Egypt, and conversely also aided their access to the Mediterranean at other times.⁶ Needless to say that tectonic movement has also contributed to Egypt's current position on the globe and subsequently its climate, natural resources and much of its topography.

The Eastern Desert cliffs around the ancient Oryx Nome are primarily composed of soft, white nummulitic limestone bedrock (Klemm and Klemm 2008: 68-85). This rock was formed long before the Nile began its formation outlined above, when the land was submerged beneath the ocean between 3 and 65 million years ago. Over time the sheer quantity of organisms that were fossilised on the seabed formed the deep deposit of limestone that came to be the building blocks of Ancient Egypt. The extensive limestone beds in the Oryx Nome are clearly marked in figure 4.4 which indicates the primary geological deposits of this area. The locations of Pharaonic Period stone quarries are also highlighted. These quarries exhibit use from the Old Kingdom through to the Greco-Roman Period (some even up to the modern day), and analysis of the stone can indicate certain monuments that were constructed using rock from this area.⁷ Weighing in excess of 1300 tonnes, the largest standing statue ever constructed in Egypt was to be quarried from the rocks at Zawiet Sultan during the reign of Amenhotep III (Klemm and Klemm 2008: 72-75). Unfortunately the scale of the project seems to have been its downfall, and it was never lifted from the bedrock. A cross section of the Nile Valley in this area (figure

⁶ See section 4.2.3 for Petrie's opinions regarding the ways in which tectonic crust movement could result in a higher Nile flood.

⁷ The Thoth chapel from Tuna el-Gebel and now in the Roemer-Pelizaeus Museum was constructed in the Late Period using rocks quarried at Zawiet Sultan (Klemm and Klemm 2008: 77).

4.3) also indicates the underlying limestone and subsequent fluvial deposits formed over it. This cross-section of the Oryx Nome area indicates that the east bank is characterised by tall limestone cliffs. Wadis give steep access to the eastern desert and the mineral and stone resources available. These cliffs control the migration of the Nile further east which results in a very narrow eastern fertile strip. The west bank on the other hand is much flatter and characterised by concentrations of Aeolian sand dunes overlying fertile alluvial silts recognized by Butzer and discussed in section 4.5. The raised areas close to the western floodplain indicate higher outcrops of limestone bedrock beyond the flow of the Bahr Jusuf.

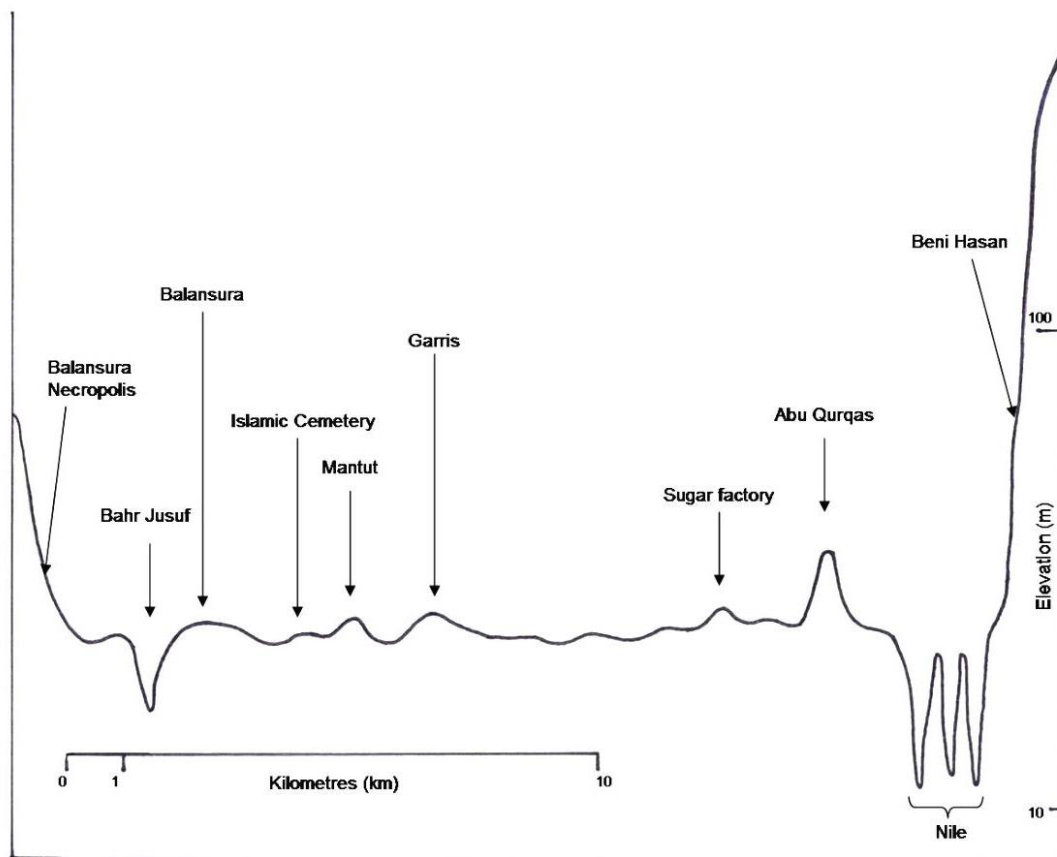


Figure 4.3: A cross-section across the valley in the Oryx Nome (a-a in figure 4.4). The steep limestone cliffs bordering the cultivation in the east can clearly be seen, while the areas of highland in the centre of the alluvium are old riverbanks (levees) on which settlements can often be found (see section 4.2.3 below).

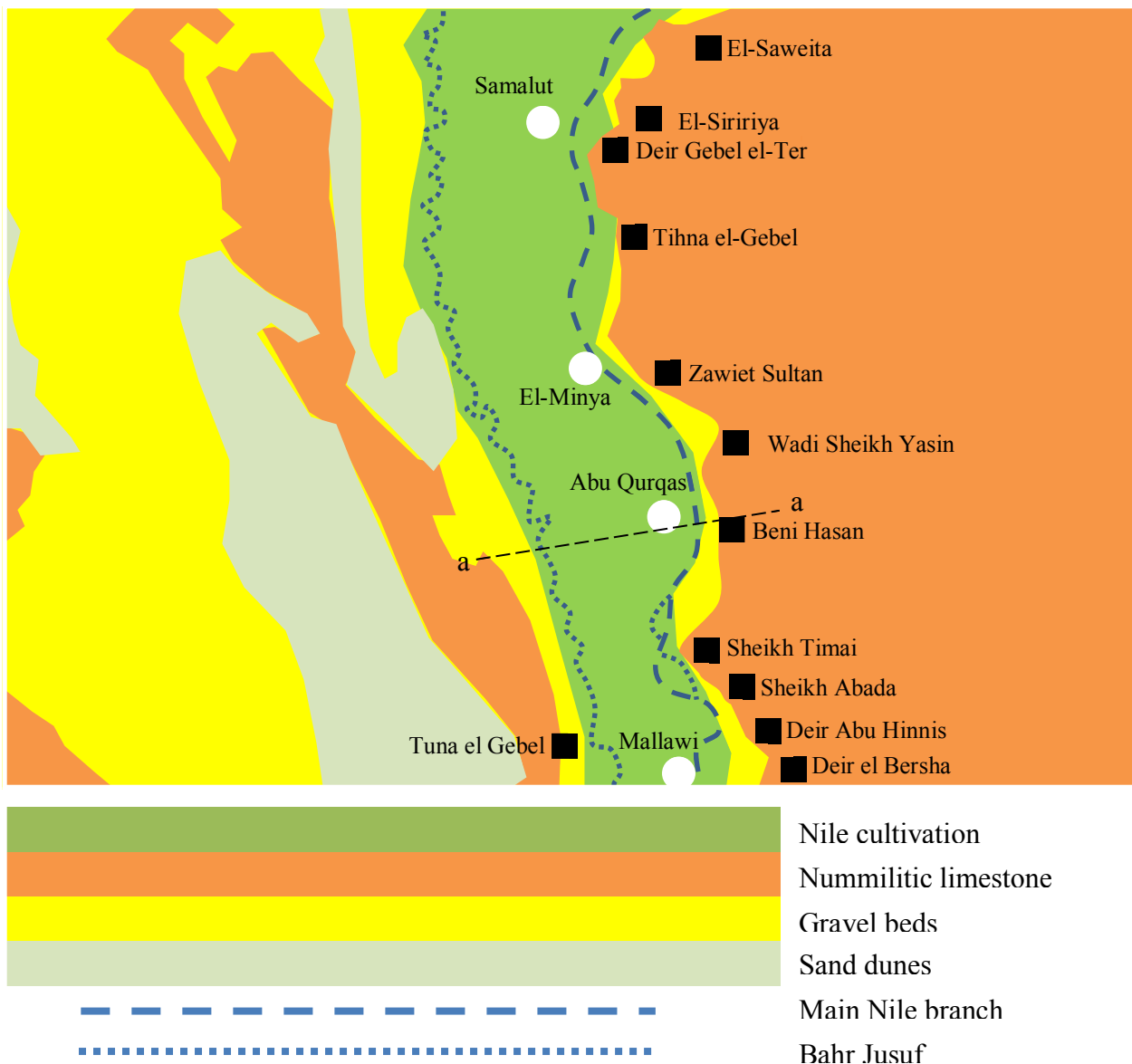


Figure 4.4: A geological map of the Oryx Nome and neighbouring areas indicating the main rock types present. The main quarrying sites from the Pharaonic Period are indicated as black squares (Klemm and Klemm 2008). Major modern settlements are indicated by white circles. Adapted from the 1981 Egyptian Geological Survey and Mining Authority map created on behalf of the Ministry of Industry and Mineral Resources.

4.2.2 Meteorological processes and landforms

The modern climate of Egypt is well known; a land of perceived eternal sunshine and little rain. However, sudden changes in weather are not uncommon – particularly in the cases of wind and rain storms, indicating that ‘eternal sunshine’ may not have

always been the case.⁸ Studying the more general changes in climate over the course of Egyptian history can reveal much about the dependence of its inhabitants on the stability of its weather. Physical reminders of Egypt's wetter past during the Pleistocene can be seen in the prevalence of large wadis entering the Nile Valley from the Eastern Desert and carving deep paths through the cliffs bordering the area of the Oryx Nome and shown in figure 6.4. This section will outline some changes in climate and rainfall during the Egyptian Middle Kingdom, as well as some observations regarding the effects of wind on the Nile Valley and its impacts on those residing there.

Aeolian processes and landforms in the Oryx Nome

Prevailing winds in the Nile Valley come from the Mediterranean (north) which, historically, aided navigation along the south-north flowing river during the inundation period (Cooper 2012: 26). However, strong winds also enter Egypt from across the wide open flat desert to the west (Endruweit 1988: 71-72). These winds force loose sand into the valley forming layers of dunes within the western areas of the floodplain which are subsequently overlain by Nilotic sediment during inundations. These layers were recorded by Butzer in three areas of Middle Egypt; Deshasha to Balansura, Tuna el-Gebel to Dashlut and, Nazlet Bawit to El-Miharraq (Butzer 1959a: 75). Figure 4.5 reflects the formation of these Aeolian sediment layers in the area between Tuna el-Gebel and Dashlut. The expansion of the dunes over the floodplain would have narrowed the availability of cultivatable land within the valley, although a significant expansion of alluvium during the Roman Period would have allowed for expansion of urban areas into the western desert margins. Butzer's

⁸ In 2014 Egypt experienced a number of localised rain storms, sand storms and even a period of snowfall.

findings indicate that the cultivation was much narrower during the Middle Kingdom and likely affected the location of settlements and cemeteries during this period. For example, Balansura, a site discussed in section 3.4.4, is located on the Pleistocene gravels and underlying limestone bedrock, roughly 1km from the floodplain edge, implying knowledge of underlying geology during the late Middle Kingdom. Therefore these dunes now form a large proportion of the underlying floodplain to the west of the Bahr Jusuf and impact the availability of ground water in these areas as well as the stability of the alluvium located there.

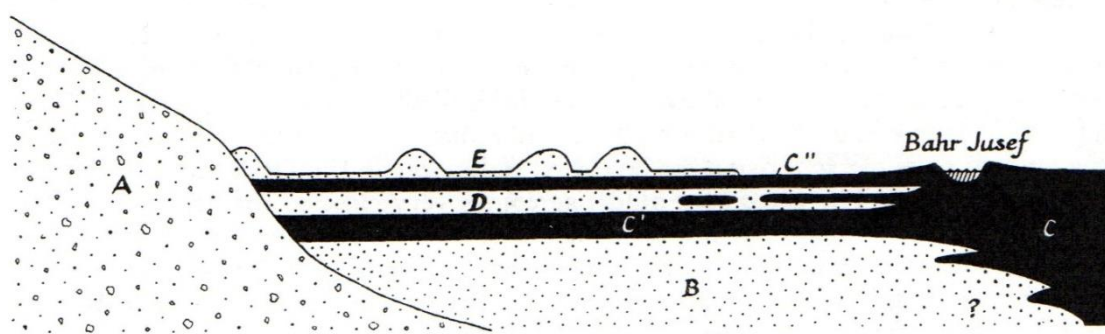


Figure 4.5: Aeolian dune deposits overlaying the fluvial sediments in the Egyptian Nile Valley between Dashlut and Tuna el-Gebel, from Butzer 1959a, fig. 1. A = Pleistocene gravels; B = older dunes; C = Holocene alluvium; C' = Roman age expansion of alluvium; C'' = Medieval expansion of alluvium; C''' = Modern expansion of alluvium; D = Lower younger dunes (subdivided into late Roman and early Medieval); E = Upper younger dunes (modern).

Winds blowing from the desert could cause particular concern for settlements located in those areas, as is indicated at the site of Kahun north of the Oryx Nome. Frey and Knudstad's reanalysis of Petrie's exploration of the site highlighted a number of new features informing the ecological relationship between inhabitants and environment within the desert edge. A low lining wall of mud-brick was discovered encircling the lower courses of the settlement's enclosure wall (Frey and Knudstad 2008: 45). This was likely to protect against windblown sand and the undercutting erosion that caused instability within the foundations of the settlement. This may also be the reason for

the lower numbers of tells along the western desert edge of the Oryx Nome as shown in figure 3.25. Wind also had significant benefits to the Egyptians, who often orientated their homes to make use of the cooling winds that could enter through tall window grills or courtyards (for Kahun see Quirke 2005: 56). Endruweit's analysis of large homes at Amarna revealed construction methods adopted by the Egyptians to encourage the cooling north-northwest prevailing winds into their homes (1988: 71-72). The orientation of the home and the windows, courtyards and wind-hoods⁹ (Snape refers to these in the Arabic as *mulqaf*, 2014: 227) were arranged so as to catch the wind and make it flow into the property. Endruweit indicated that the bed-niche often found in large homes likely also supported a *mulqaf* above it in order to cool the rooms during the day; this is highlighted on figure 4.6 for a Kahun mansion.¹⁰

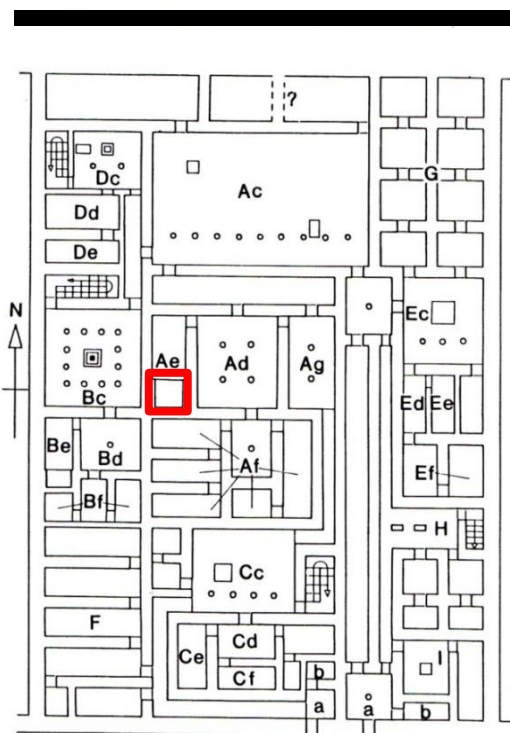


Figure 4.6: Typical layout of a northern mansion at Kahun, from F. Arnold 1989: 86. The low lining wall has been added on the northern enclosure, and the tripartite living quarters can be seen in the centre of the house plan fronted by a north-facing colonnade and courtyard to allow the cooling prevailing winds to enter the domestic areas. The position of the *mulqaf* is highlighted above the bed-niche seen in the central accommodation of the plan.

⁹ Fathy records that *mulqafs* were used in the construction of New Gurna, reducing temperatures in the school by as much as 10°C (1973: 49-50).

¹⁰ Spence has reanalysed the power relations and social interaction exhibited in the architecture of the large houses at Amarna and convincingly shown that the *mulqafs*, along with other features, focus attention on the head of the household and their command of the space (2010: 290).

The continued problems of Aeolian sand in the Nile Valley, and measures to reduce its impact have been studied by Munro et al. in areas of Sudan and Nubia (2012). These problems have also been explored by Spencer et al. at the site of Amara West which has confirmed that the northern channel of the Nile around the island on which the settlement was founded silted up during the early years of the town's existence (Spencer et al. 2012; Spencer et al. 2014: 90-91). As well as causing problems with regard to river access, it increased the level of damage caused by windblown sand from the north-westerly prevailing winds across the Nubian desert (2012: 41). This prompted the inhabitants to block access to north facing doorways, and eventually construct internal stairways to reach lower levels within buildings, as sand accumulated within the settlement. This, combined with the loss of the strategic island location, likely resulted in the steady abandonment of Amara West (Spencer et al. 2014: 88-94). The problems faced by wind-blown sand in the Oryx Nome during the Middle Kingdom may therefore have influenced the habitation of the western floodplain causing a preference for eastern locations during the Pharaonic Period, as well as influencing architectural forms in urban areas, as shown by the examples from Kahun.

Temperature

The temperature of Egypt fluctuates depending on location within the country. Alexandria benefits from the cooling north wind from the Mediterranean and so has a mean daily temperature of around 20°C, while the same measurement at Aswan is around 26°C (see table 4.2 for a more detailed breakdown of temperatures). El-Minya is at the cooler end of this spectrum at 21°C. As mentioned above, the daily heat, which can increase in the El-Minya region to around 30°C, can be avoided by

utilising the cooling prevailing winds by constructing buildings to allow the wind to enter the rooms through high windows that let little light in.

Average Daily Temperature (°C)												
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Alexandria	13.55	14.1	15.6	18.95	21.5	24.4	26.2	26.5	25.3	22.45	18.85	15.15
El-Minya	12.15	13.8	17	21.9	25.9	28.1	28.5	28.1	26.2	23.4	18.05	13.6
Aswan	14.55	17.6	21.65	27.05	30.85	33.1	33.65	33.15	31.05	29.25	21.5	17.5

Average Daily Temperature - highest (°C)												
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Alexandria	18.4	19.2	20.4	24.4	26.7	28.8	29.9	30.1	29.6	27.5	23.9	20.1
El-Minya	20.4	22.4	25.8	31.2	35.4	36.9	36.6	35.9	34	31.3	25.9	21.4
Aswan	21	24.9	29.5	35	38.7	41	41	40.3	38.5	38.2	28.3	24.2

Average Daily Temperature - lowest (°C)												
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Alexandria	8.7	9	10.8	13.5	16.3	20	22.5	22.9	21	17.4	13.8	10.2
El-Minya	3.9	5.2	8.2	12.6	16.4	19.3	20.4	20.3	18.4	15.5	10.2	5.8
Aswan	8.1	10.3	13.8	19.1	23	25.2	26.3	26	23.6	20.3	14.7	10.8

Table 4.2: Average temperatures in 2013 within the Egyptian Nile Valley, taken from www.worldclimatecharts.com. El-Minya's average daily temperature falls within the mid-range for the country. The substantial drop in the region's daily lowest temperature may be explained due to its relatively exposed position in the valley and cooling affects from the desert winds blowing from the north and west.

Precipitation

Precipitation has been one of the major processes affecting habitation within the Nile Valley.¹¹ Rains in the source areas of the White and Blue Niles can influence the height and force of the annual inundation, while localised rains in the Egyptian valley can cause excessive wadi runoff and destruction to vulnerable urban areas. This section will outline the processes that affect the amount of rain that contributes to the Nile Valley and the levels of rain that occur in Egypt.

¹¹ Precipitation has been less impacting on lifestyles of those residing in the Nile Valley since the construction of the Aswan High Dam in the 1960s. The flood waters, affected by precipitation in the southern reaches of the Nile basin, are now controlled through much of the length of the Nile by various dams.

Average Monthly Rainfall (mm)												
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Alexandria	51	27	13	4	1	0	0	0	1	11	29	52
El-Minya	0	0	1	0	0	0	0	0	0	2	1	1
Aswan	0	0	0	0	0	0	0	0	0	0	0	0
Wadi Halfa	0.1	0	0	0	0	0	0	0.5	0	0	0	0
Atbara	0	0	0	0.4	3.5	1.5	19.1	26.8	6.7	1.9	0	0
Khartoum	0	0	0	0.4	4	5.4	46.3	75.2	25.4	4.8	0.7	0
Ethiopia	14	28	57	91	125	137	237	243	167	73	34	21
Lake Victoria	138	153	228	309	208	71	52	68	104	157	201	170

***Table 4.3:** Average monthly rainfall during 2013 in the Nile basin as recorded on www.worldclimatecharts.com. The effects of this rainfall are mirrored in the discharge of the Nile River and the resulting inundation (see table 4.4 and figure 4.11).*

Rainfall is a seasonal element of Egypt's weather and can be seen occasionally during the winter months, although is very rare during the summer. Modern data relating to the rainfall at Alexandria, El-Minya and Aswan can be seen in table 4.3.

It is generally accepted that rainfall in Egypt during the Holocene West Phase was much greater and meant that vast areas of the desert areas surrounding the Nile Valley were habitable for hunter gatherer groups (see above; Said 1993: 55). Wadis provided access into the eastern deserts to hunt wild fauna, whilst the wide savannah plains of the western desert provided game herds to sustain a population of non-sedentary inhabitants. At the end of the Holocene Wet Phase (during the 5th Dynasty; Bell 1975: 247; Burn 2014) Egypt's weather became drier, forcing populations to become more dependent on the floodplain for access to inundating waters and agricultural produce. Scenes in the tombs at Beni Hasan (BH I: pl. 13) document the flora and fauna that were still accessible in the desert areas during the early Middle Kingdom, but which were likely diminishing due to changes in climate, and hunting by humans (Butzer 1976: 27). These rains often arrived from the east, over the Red Sea. Clouds forced over the peaks of the eastern desert deposited their rainwater

causing the dry wadis to flow ferociously, taking copious amounts of dry sediment with them. This sediment is still visible in the modern floodplain around the mouths of wadis, where they enter the floodplain, in the form of alluvial fans (Sampsell 2003: 33). These deposits are visible in the space between the river and the cliff bottom, forming protrusions of land higher than the surrounding floodplain. This higher land provides suitable areas for settlement. One such ancient Egyptian settlement located within Middle Egypt was Mer-Neferet (Greek Akoris, modern Tihna el-Gebel). Further investigation of other alluvial fans may provide evidence of settlement, and in particular starting places for expeditions into the eastern desert mining districts.

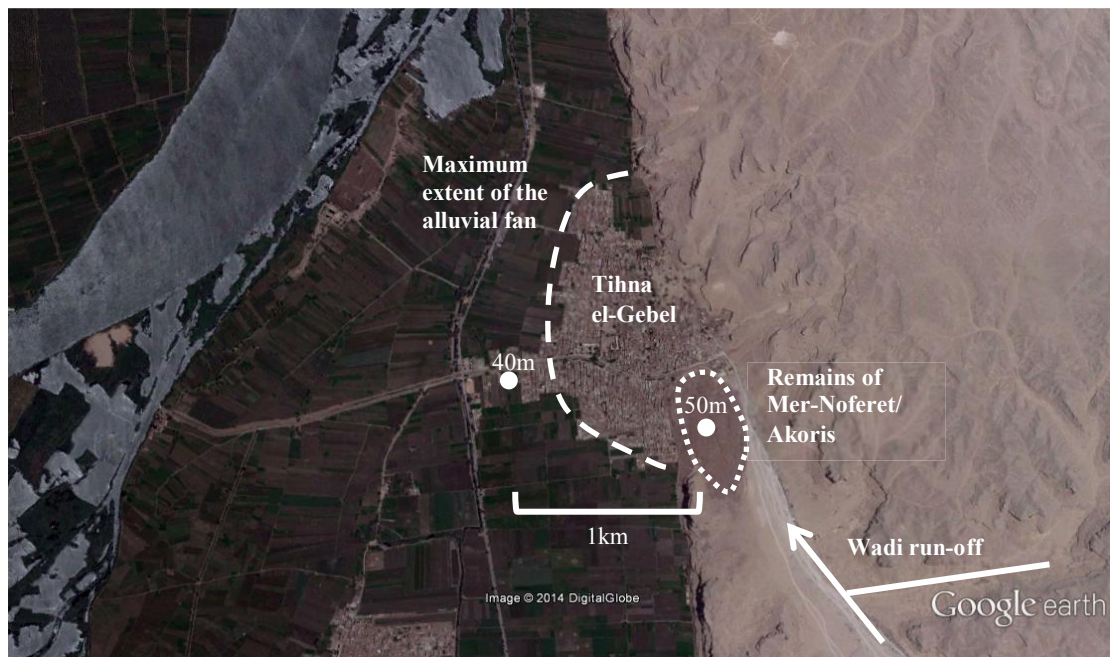


Figure 4.7: The alluvial fan at modern Tihna el-Gebel highlights the formation of terraces within the floodplain caused by wadi run-off. These areas of highland are frequently used as locations for settlement due to their protection from the waters of the inundation and access into the eastern deserts (Sampsell 2003: 33). However, the damage from wadi run-off can be equally as destructive, although less frequent following the end of the Holocene Wet Phase.

Changes in precipitation during the Middle Kingdom are evinced by a number of sources. Bell noted the report given in one of the Semna dispatches during the reign

of Amenemhat III documenting a group of Nubian desert dwellers who reported that the ‘desert is dying of hunger’ (Smither 1945: 9; Bell 1975: 248). Bell concluded that this statement related to sudden changes in the amount of precipitation over the desert areas of Egypt and Nubia forcing groups into the Nile Valley – which may account for increases in security during the Middle Kingdom (1975: 248). This account is contemporary with high flood levels recorded at Semna during the reign of Amenemhat III (see 4.2.3 below) which may indicate that the valley was getting wetter as the deserts got drier.¹² This may then relate to a general shift south of the Intertropical Convergence Zone (ITCZ) into its current position over the Ethiopian Highlands, representing significant and rapid shifts in climate over Egypt during the late Middle Kingdom. Archaeological evidence confirms the consideration planners gave to precipitation during the Middle Kingdom. Excavations of the fortress of Buhen uncovered a central drain running through the length of the main street down to the river edge. This drain may be indication that regular rains were experienced and runoff had to be facilitated in order to reduce the risk of damage to the fort buildings (Bell 1975: 249; Emery et al. 1979: 35). Similarly, house models from the tomb of Meketre indicate that drainage of rainwater from the roof required architectural features to aid runoff, with the addition of three gutters projecting into the courtyard from the colonnade roof (Winlock 1955: pl. 9, 56). However, this does not indicate a more regularly wet climate, simply that rain was something considered by architects of the Middle Kingdom.

¹² See Kraemer and Liszka for an alternative interpretation of the Semna dispatches (2016: 45-46).



Figure 4.8: *The elevated position of ancient Mer-Neferet can be seen here extending beyond the wadi mouth on the right. To the left is the modern town of Tihna El-Gebel. Image courtesy of Martin Bommas.*

The ITCZ and ENSO

Changes in the ITCZ and El- Niño Southern Oscillation (ENSO) have been discussed with regard to their impact on the River Nile's annual flooding regime. Here, a brief overview of these natural phenomena and research about them is offered.

The movement of the ITCZ can have direct impact over fluvial processes within the Nile river valley and can cause droughts or excessive flooding depending on its location during the summer period (Camberlin 2009: 308). If the ITCZ does not move north enough of the equator then the monsoonal rains fall over the southern Ethiopian Highlands meaning that the waters do not run into the Blue Nile and Atbara basins and thus results in a lack of water for the annual inundation to reach Egypt causing drought (Hassan 1981: 1143; Hassan 1997: 58; Marriner et al. 2012: 83).

Conversely, a more northerly ITCZ contributes to localised rainfall resulting in an over-excessive inundation causing destructive flooding in the Nile Valley.

Similarly, Marriner et al. have also suggested that a decreased El Niño-Southern Oscillation (ENSO) frequency during the early Old Kingdom correlates with the emergence of a unified ancient Egyptian state and may have contributed to a stability in flood levels and increased dependency on agriculture (2012: 80). However, Eltahir has shown that while the annual Nile flood level can be related to ENSO events (1996: 131-132), floods can also vary greatly outside of the ENSO cycle and so not all low floods can be attributed to ENSO events (1996: 136).¹³

4.2.3 Fluvial processes and landforms

The inundation

Fluvial processes are by far the most dominant within the modern Nile Valley and continue to shape the environment today. Most of these processes have occurred since the formation of the river valley and the creation of the Eonile, but the cultural landscape of Egypt has been most profoundly affected by events occurring after the establishment of the African connection during the Prenile stage of its development. This African connection to the Equatorial lakes through the White Nile provides Egypt with the reliable supply of water needed to produce the exotic river of today. On the other hand, its link to the Ethiopian Highlands through the Blue Nile and Atbara provided Egypt's annual inundation. It is difficult to overstate the impact that the inundation had over the development of ancient Egyptian culture and society but, so as not to contribute a purely environmentally deterministic argument, here the

¹³ Hassan states that all fluctuations in Nile flood periods relate to the displacement of the ITCZ, although he makes no mention of ENSO events (1997: 58).

discussion will focus on the origins of the inundation and the processes that it initiates within the Egyptian Nile Valley as well as an introduction to Nile level records from the Middle Kingdom that may have affected the Oryx Nome.

The Nile inundation typically occurs in Egypt between July and October, subsiding back to its normal levels by December (Said 1993: 96).¹⁴ Average flow records are indicated in table 4.4 and figure 4.10 which illustrate this peak water flow from the Ethiopian Highlands arriving in the Main Nile during the inundation period. It also indicates the more regular contribution to flow from the White Nile. The overall contribution of water from the three main tributaries is indicated in figure 4.11; the White Nile supplying 30% of the average discharge, the Blue Nile 54% and the Atbara only 12%. The Atbara occasionally runs completely dry during the low water period from February to May as it is only supplied from the monsoonal rains of the Ethiopian Highlands, this can be clearly seen in figure 4.10. The data given in table 4.4 and figure 4.10 can be found in many sources detailing the hydrologic regime of the River Nile, however the figures often change depending on the years recorded or locations for which records were made. The figures used here have been taken from Sutcliffe and Parks (1999) who had in turn used Hurst (1940); the figures have been subsequently amended to correlate with total flows. Different figures can be found in Said (1993). Although the figures change, they all serve to show the same dramatic increase in flow during the inundation season and it is outside the scope of this thesis to compare each data set available.¹⁵ These flood waters coming from the Ethiopian Highlands also bring copious amounts of fertile silt to the Egyptian Nile

¹⁴ Woodward et al. record that the last natural inundation, prior to the effects of the Aswan High Dam, was in 1964. Since then annual discharge has been around 25% of the pre-1964 levels (2007:280, fig. 13.12a).

¹⁵ Figures often differ due to the changes in base level for measurements being used, or measuring scales – a similar problem that must have been faced by the ancient Egyptians themselves (Brown 1997: 10).

Valley as illustrated in figure 4.9. The Blue Nile alone carries 72% of the annual suspended sediment load while the Atbara brings 25%; the White Nile on the other hand carries only 3%.¹⁶

The sediment carried by the Nile during the inundation period is deposited across the floodplain and increases the height of the land each year. The rate of increase (aggradation) is estimated to be roughly 1mm per year (Hassan 1997: 63; Bunbury 2012: 15), though Parcak's measuring of sediment cores in Middle Egypt indicates that this region aggrades at 5mm per year (2010: 7). Slow running rivers or branches can also cause rapid deposition of sediment causing aggradation of the river channel itself. This can lead to the formation of islands and subsequent vegetative growth within the channel belt (Burn 2014: 44). When the river floods its banks the majority of its load is deposited immediately on the river edge forming levees (Hassan 1997: 60). These natural levees can be up to 3m higher than the surrounding land and define the limits of the river in its low flow period (Butzer 1976: 16; Hillier et al. 2006: 3).¹⁷ They are also useful as natural flood defences and contributed to the formation of early flood management and the development of urbanism in Ancient Egypt (Bietak 1979: 101). As well as levees the rapid deposition of silts during inundation and high water flows, particularly during the Prenile period, led to the formation of 'turtle-backs' along the valley floodplain and in the delta (Said 1993: 42). These are composed of sandy silts deposited in large mounds that lie higher than the surrounding area. These higher areas attract further siltation and result in suitable

¹⁶ The sediment transported by the Nile contributes to the floodplain of Egypt making it fertile. Since the construction of the Aswan High Dam in the 1960s this fertile silt has been held behind the dam and increased the use of artificial fertilisers throughout the Egyptian Nile Valley. Saad (2002) recorded a decrease from 129 million tons/year to just 4.2 million tons/year. Woodward et al. suggest that 98% of the transported silt is blocked behind the High Dam and deposited into Lake Nasser (2007: 283) this is subsequently altering the sediment dynamics across the entire eastern Mediterranean Levantine coast (2007: 287).

¹⁷ Graham records that levees in the Luxor to Nagada stretch of the Nile Valley can measure 250-500m in width making them suitable for settlement development and expansion (2010: 138).

areas for habitation within an otherwise marshy area (Bietak 1979: 100-101). Many of the tell sites preserved in the Nile Delta are located atop these ‘turtle-backs’. Basin irrigation within the Nile Valley essentially allowed the banks of the river to overflow into canals that fed large natural basins delimited by the levees, causing water to surround the settlements atop the ‘turtle-backs’ and levees (Said 1993: 188-190).¹⁸

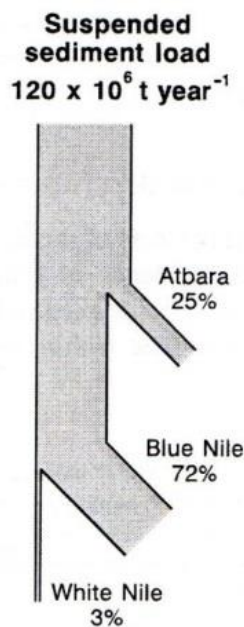


Figure 4.9: The percentage of sediment carried by each tributary of the main Nile branch per annum. Reprinted by permission from Macmillan Publishers Ltd: *Nature* 339: 6219, Foucault, A. and Stanley, D. J. 'Late Quaternary palaeoclimatic oscillations in East Africa recorded by heavy minerals in the Nile delta', 44-46. Copyright (1989).

¹⁸ This process of flooding the entire valley is no doubt what prompted Herodotus to state: 'When the Nile covers the land, only the towns are visible above the water, and they look like nothing so much as the Aegean islands. The rest of Egypt becomes open sea, with only the towns rising up out of it' (II: 97).

Main Nile at Wadi Halfa, Kajnaity and Dongola	Year	January	February	March	April	May	June	July	August	September	October	November	December	Average Annual Flow
	1890-1910	4715	3310	2687	2020	1808	2096	5675	20124	23114	16709	8749	6250	97257
	1911-1960	3495	2408	2219	1951	1792	1945	5023	19207	21745	14595	7213	4531	86124
	1961-1995	3010	2290	2086	2781	2942	2531	5373	17078	17221	9403	4887	3489	73091
	1890-1995	3740	2669	2331	2251	2181	2191	5357	18803	20693	13569	6950	4757	85491
Atbara River at its mouth	Year	January	February	March	April	May	June	July	August	September	October	November	December	Average Annual Flow
	1911-1960	22	6	1	0	3	85	1642	5643	3731	897	201	63	12294
	1961-1994	11	6	1	6	17	47	1325	4206	2412	511	61	19	8622
	1911-1994	17	6	1	3	10	66	1484	4925	3072	704	131	41	10458
Blue Nile at Khartoum	Year	January	February	March	April	May	June	July	August	September	October	November	December	Average Annual Flow
	1900-1960	852	509	437	367	490	1210	5401	15963	14931	8245	2889	1497	52791
	1961-1995	501	342	352	532	526	865	4248	13933	11280	5128	1665	826	40198
	1900-1995	677	426	395	450	508	1038	4825	14948	13106	6687	2277	1162	46495
White Nile at Khartoum	Year	January	February	March	April	May	June	July	August	September	October	November	December	Average Annual Flow
	1911-1935	2499	1723	1511	1368	1470	1634	1575	1622	2972	3773	3148	2904	26199
	1936-1960	2140	1887	2177	1963	1635	1601	1031	1308	1764	2658	2484	2436	23084
	1961-1995	2682	2047	2258	3024	2701	2042	1463	1407	2106	2786	2753	2860	28129
	1911-1995	2440	1886	1982	2118	1935	1759	1356	1446	2281	3072	2795	2733	25804

Table 4.4: Average annual flow regimes (measured in millions of cubic metres, $m^3 \times 10^6$) along the length of the main Nile and its tributaries. The main Nile was measured from records at Wadi Halfa so as to avoid the effect of damming from the Aswan High Dam, whereas the three main tributaries were measured at or near their mouths into the main branch from Khartoum (adapted from Hurst 1940; Sutcliffe and Parks 1999: 120, 135, 148.).

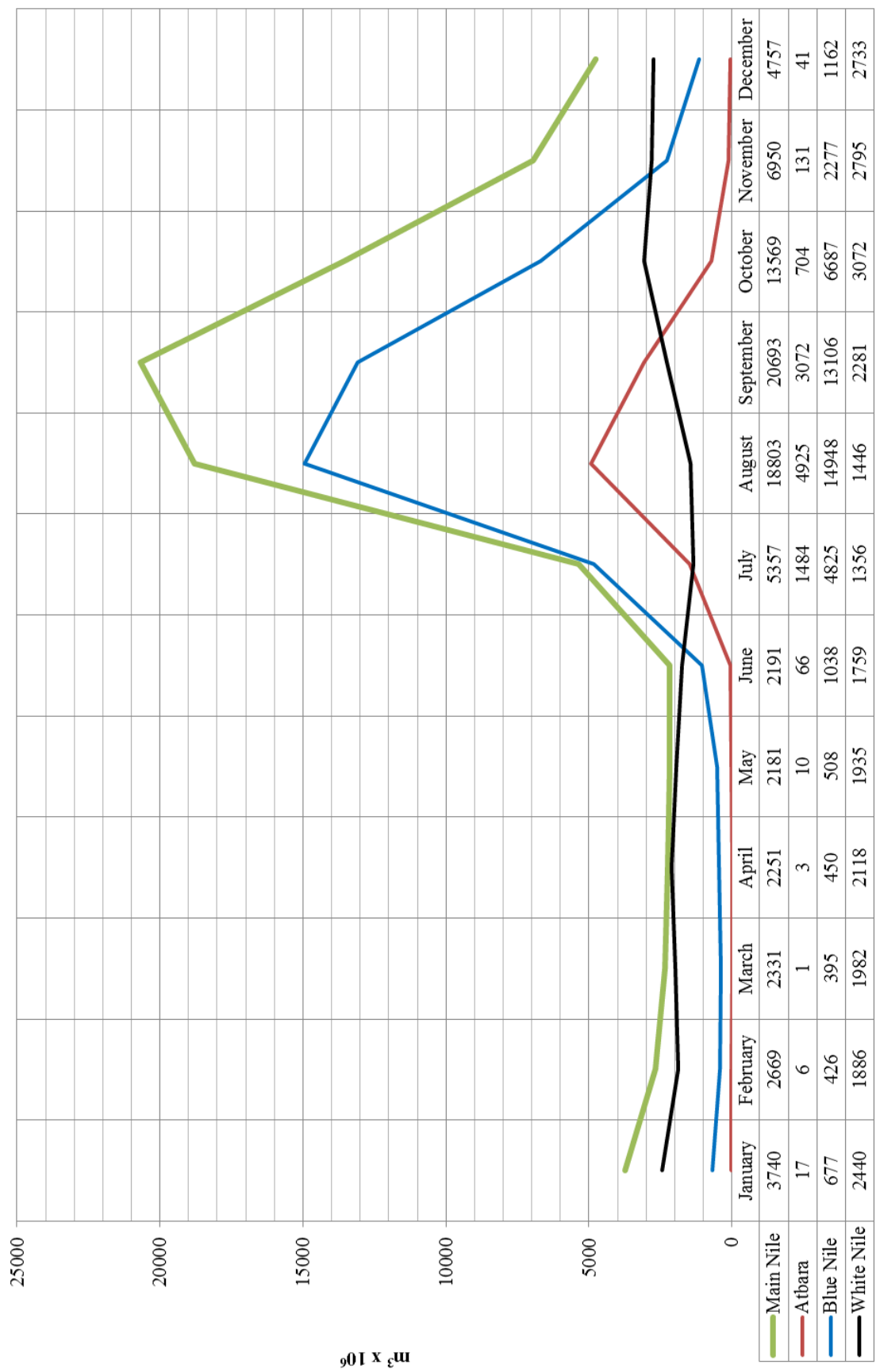


Figure 4.10: Average annual flow regimes plotted for one annual cycle, created from the figures in table 4.4.

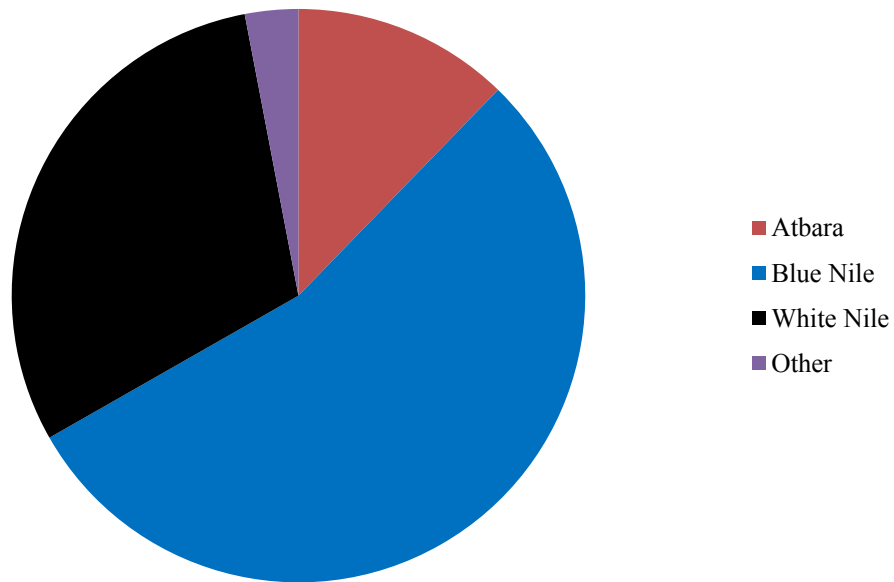


Figure 4.11: Pie chart showing the percentage of annual discharge contributed by the main Nile's three major tributaries. The Blue Nile offers 54%, while the White Nile supplies 30% of water. The Atbara, due to its seasonal flow provides only 12%. The remaining 3% is made up from other sources such as surface run off between the mouth of the Atbara and the gauging station at Wadi Halfa.

Although the inundation is a regular annual event it is not always reliable and is dependent on a number of climatological factors such as the position of the ITCZ and ENSO (see glossary). These climatological obstructions to the monsoonal rains create phases of low and high floods that can last a number of years. It has been indicated previously that there are distinct periods in Egypt's more recent past of fluctuations in Nile levels which are summarised in table 4.5. Those given here come from Hassan (1997) although similar data can be found in Said (1993: 122) and Seidlmayer (2001: 21). Hassan's data lacks reference to a period of average flood heights, creating a misleading impression that they were always low or high. Seidlmayer (using data presented in Said 1993) informs that the period 1946-1967¹⁹ was a time of 'mittlere Fluten' (average floods), as was 1974-1978. Unfortunately Seidlmayer only gives data

¹⁹ Seidlmayer states 1846-1967, although it is clear that the first century given should be amended (2001: 21).

from 1870 in his analysis and therefore Hassan has been used to give a reasonable impression for previous centuries.

Nile Floods (Hassan)	Period		Nile floods (Said and Seidlmayer)
Generally low (with minor highs)	Before 650-930		
Major low	931-1070		
Major high	1071-1180		
Major low	1181-1350		
Major high	1351-1470		
Major low	1470-1500		
<i>Incomplete Record</i>	<i>1500-1725</i>		
Minor high	1725-1800		
Minor low	1800-1830		
Minor high	1830-1885		
High	1885-1898	1870-1898	High
Low (with significant droughts at 1913 and 1925)	1899-1960	1899-1945	Low
		1946-1967	Average
High	1961-1968		
Low	1969-1990	1968-1973	Very low
		1974-1978	Average
		1979-1987	Very low

Table 4.5: *Periods of Nile flow variations adapted from Hassan (1997: 58), Said (1993: 122), and Seidlmayer (2001: 21)*

Inundation heights have been recorded in Egypt since the Pharaonic Period at nilometers throughout the Egyptian valley; additionally there are references to floods in texts. These two data sets can assist in reconstructing periods of high and low floods throughout ancient Egyptian history. A number of further inundation records can be found from other periods, notably the Karnak quay inscriptions (Broekman 2002), but are outside the chronological scope of this thesis. Here the focus will remain on evidence dating to the Middle Kingdom.

A number of textual sources are of use in studying the inundations of the Middle Kingdom, including the flood records taken at Semna and Kumma, the inundation stela of Sobekhotep VIII and the flood levels recorded on the White Chapel of Senwosret I at Karnak. But to this list can be added a number of shorter sources that relate more specifically to the Oryx Nome, such as the autobiography of Amenemhat [BH 2]. Evidence pertaining to drier climates across the eastern Mediterranean during the First Intermediate Period has previously been analysed by Moeller (2005b). The initial theory by Bell proposed that this period witnessed drier climates causing the collapse of the Old Kingdom and initiated a time of famine (Bell 1971).²⁰ Moeller's research has indicated that the evidence is not strong enough to confirm a period of catastrophically low floods resulting in drought and shortage across the entire Nile Valley. However, many ancient texts do describe conditions similar to famine, often referring to periods of low Niles, such as the *Prophecies of Neferti* (Lichtheim 1976: 139; Coulon 2008: 2). It is possible that these events were local and thus controlled and monitored by regional officials, similar to autobiographical accounts preserved in the tombs of Beni Hasan (see below).

Flood levels at the Second Cataract: 'The Semna Problem'

The flood heights recorded on the cliffs around the Nubian fortresses of Semna and Kumma by the Second Cataract have been the topic of much debate since they were first recorded by Lepsius in 1852 (LD V: 222-225). They are all dated to the late Middle Kingdom, specifically between the start of the reign of Amenemhat III into the early 13th Dynasty. The texts were published in full by Hintze and Reineke in 1989 (Kumma: 98-102, [369-382A]; Semna: 149-152, [501-511]) and indicate that

²⁰ The theory has also been discussed by Parcak, who subsequently argues for a period of higher Niles during the Middle Kingdom (2010: 9).

flood levels during the period were significantly higher than those of the nineteenth century AD. Tables 4.6 and 4.7 give a summary of the records found at Kumma and Semna and their respective heights above sea-level if known. Unfortunately the records found at Semna were found on fragments of rock broken up around the valley floor beneath the fortress and so exact measurements of the flood heights are impossible to calculate. Those found at Kumma were however in situ and were therefore able to provide accurate readings for 16 of the flood levels recorded. Figure 4.12 plots the 13 locatable records from the reign of Amenemhat III against the mid-nineteenth century average level of the flood provided by Seidlmayer of 150.88m above sea level (2001: 74). The figure demonstrates that the floods during the late Middle Kingdom were, on average, five to eight meters higher than those of the mid-nineteenth century. It is to be assumed that these exceptionally high flood levels would have had severe implications for the inhabitants of Egypt and Nubia further downstream.

Inscription Number (Hintze and Reineke)	Ruler	Reigning year	Height (metres above sea level)
369	Amenemhat III	1	157.41
370	Amenemhat III	5	155.71
371	Amenemhat III	7	157.01
372	Amenemhat III	14	156.33
373	Amenemhat III	22	157.07
374	Amenemhat III	23	159.98
375	Amenemhat III	24	157.59
375A	Amenemhat III	30	160.17
376	Amenemhat III	31?	158.33
377	Amenemhat III	32	159.49
378	Amenemhat III	37	156.87
379	Amenemhat III	40	155.07
380	Amenemhat III	41	155.81
381	Amenemhat III?	43	156.99
382	Sobekneferu	3	156.90
382A	Sobekhotep I?	4	157.98

Table 4.6: Summary of flood records from the cliffs at the fortress of Kumma, Hintze and Reineke 1989: 98-102 [369-382A]; De Putter 1993: 269.

Inscription Number (Hintze and Reineke)	Ruler	Reigning year
501	Amenemhat III	36
502	Amenemhat IV	
503	Amenemhat IV	
504	Amenemhat IV	
505		
506	Amenemhat V	
507		
508	Sobekhotep I?	
509	Sobekhotep I and Amenemhat V?	3
510	Amenemhat VII?	1
511		

Table 4.7: Summary of flood records from the cliffs at the fortress of Semna, Hintze and Reineke 1989: 149-152, [501-511]; De Putter 1993: 268.

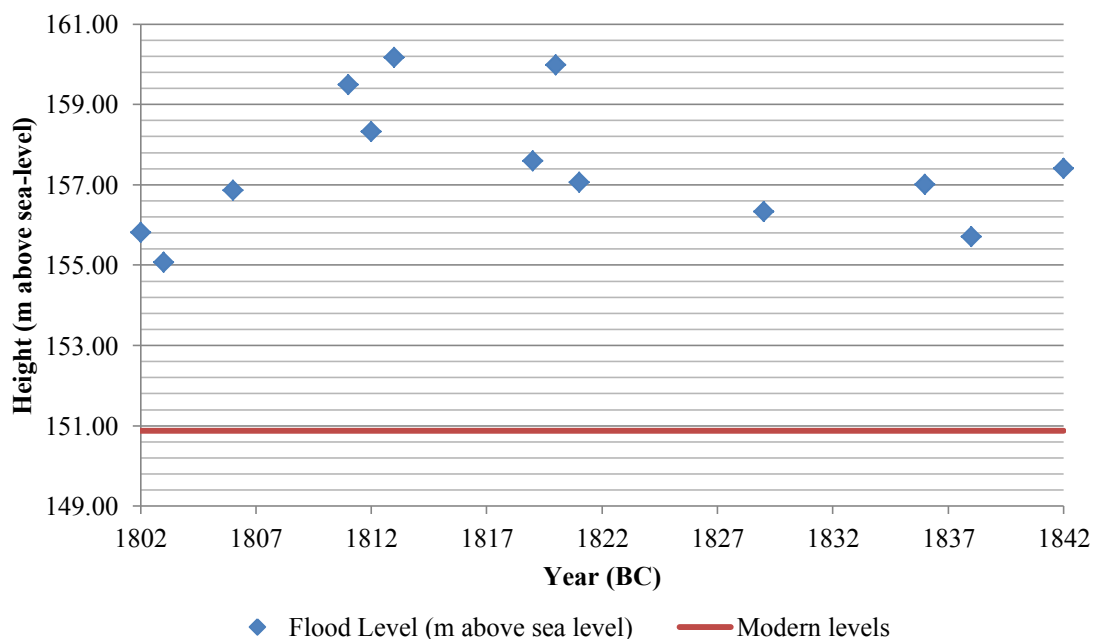


Figure 4.12: Flood heights recorded from Kumma during the reign of Amenemhat III plotted against the average flood height of the nineteenth century, 150.88m above sea-level, in the same location (Seidlmayer 2001: 74).

In an effort to elucidate these exceptional Nile level records William Matthew Flinders Petrie wrote the following in a letter to Amelia Edwards in 1887:²¹

²¹ This letter is currently unpublished but is preserved in the Egypt Exploration Society Lucy Gura Archive [COR.17.c.052].

‘As to the High Niles at Semneh they are the very weakest sort of reason for a barrier at Silsileh. Why! there are quantities of XII dyn inscriptions at Assuan on the rocks below the present H.N. [High Nile] level, let alone below a higher level. Further, how can any one argue about 20 or 30 ft of level across 300 miles of country and with two cataracts between? There are many much more practicable ways of accounting for the Amenemhat inscriptions. A tilt of the Earth’s crust of only 1 inch in a mile would do it all; or changes at Wadi Halfa; or a rather different distribution of snow at the Equator, so that the melting flush would be more concentrated, + make a higher rush, which had time to spread out in the length of the Nubian channel, + need not affect Egypt.’

The suggestion that a man-made barrier existed at Gebel Silsileh was first suggested by John Gardner Wilkinson in 1853 (98) and was no doubt the source of Petrie’s issues above. However, the theory of an artificial barrier continued into more recent scholarship – although its postulated location has changed to the Second Cataract itself (see below). Petrie’s preferred ideas of shifts in the Earth’s crust are significant for the early time he wrote this letter, however, this hypothesis cannot be accepted due to the locations of the water stairways at the Nubian forts. Each fortress was equipped with a stairway leading down to the low water level that would provide protected access to the river in times of siege. All of these were still located along the 20th century low water levels when excavated and so a sudden tectonic change that reverted immediately, without causing structural damage to the buildings, would be highly unlikely. Petrie does not elaborate on what the changes at Wadi Halfa could have been, although any significant silting in Nubia would have equally affected downstream Egypt and no records of low Nile floods prior to the Second Cataract

recordings have been found. Petrie's final thought that the high floods may relate to climatological factors is much more plausible and would appear the likely choice. A sudden change in rainfall or rapid melting of ice caps in the Equatorial Lakes Plateau or the Ethiopian Highlands would result in a rush of water outside the norm of the regular flood regime. This could have caused an unusually high Nile to exceed this amount and result in destructive quantities of river discharge. This theory merits further comment below, but for now subsequent theories should be considered.

In 1903 Ball proposed that the original river bed of the Second Cataract must have been significantly higher, by roughly 7m, than it is now and that the high records of the Middle Kingdom reflected the severe down-cutting of the river channel and was therefore evidence of the erosive power of the Nile at this time (Ball 1903: 77). However, the plausibility of such erosive rates is doubtful and is not reflected at other cataracts, such as that at Elephantine, and Ball's hypothesis was discounted, notably by Fairbridge who observed that 'the rock barrier is a fine-grained crystalline rock, not susceptible to rapid disintegration' (1963: 104). The archaeological evidence of the forts themselves also discounts Ball's theory due to the lengths of their associated water-stairs. That they reached to the nineteenth century level of the Nile indicates that the water level in this area has altered very little since their construction. That these water stairs and the foundations for both Semna and Kumma remained intact during the early twentieth century prompted Somers Clarke to make a few remarks regarding the high Nile levels. He gave no definitive conclusion but, based on the preservation of the fortresses, could not conceive that the waters actually rose as high as recorded (Clarke 1916: 174-176). Instead, he suggested that these recordings were taken at a fixed height above the water mark – a fixed height that is no longer known to us. However, evidence from fortresses further downstream may confirm a period of

very high Niles comparable to those recorded at Semna and Kumma (see below), thus disproving Clarke's theory.

The two theories most discussed contend that the unusually elevated water levels reflect either (a) the construction of an artificial barrier across the Semna cataract increasing the water level in its southern reservoir, (b) sudden climatic changes occurring in the Nile basin at the end of the Middle Kingdom.

The first idea has been most defended by Vercoutter in a number of publications since 1966. During excavations at the fortress of Semna South, Vercoutter found that a deposit of up to 8m of Nile silt had built up in horizontal layers over the fort's glacis (1966: 129 and 131). Vercoutter naturally linked these findings with the records of high Nile levels found 1.5km downstream and deduced that the silt deposits were connected to a period of higher water levels. Vercoutter therefore proposed the existence of an artificial dam made up of 'rock spurs' built over the cataract outcrops that would account for an increase in water height to the south of the barrier (1966: 145). He argued for the possible existence of an overflow-chute to the east of Kumma fortress that would have allowed the Egyptians to divert the course of the river during construction of the dam, which Vercoutter believed, should have been constructed early in the reign of Amenemhat III, and certainly after that of Senwosret III (1966: 164). This already poses a problem due to the dating of the inscriptions presented by Hintze and Reineke, of which one is dated to the first year of Amenemhat III's reign (see table 4.6). Vercoutter's theory was dismissed by Bell when she analysed climate change in Egypt during the Middle Kingdom (1975: 235-236). She instead took the records as genuine high Niles, just as Lepsius did, and maintained that the Egyptians at Semna recorded the floods due to their extraordinary levels, 'as wondrous curiosities' (1975: 235), but likewise that they reflected a period

of high flood levels in the Nile Valley at the end of the Middle Kingdom.²² Vercoutter himself acknowledged that a similarly high Nile water level found at Askut, dated to the third year of Amenemhat V, posed a problem to the Semna dam theory (1966: 139). Seidlmayer measured this record to be 151.90m above sea-level, which is 6m higher than modern flood levels of 145-147m above sea-level (Seidlmayer 2001: 75-74). Vercoutter accounted for this by proposing a series of rock spurs along the Nile Valley that served to create small reservoirs along the river (1966: 162-163). Vercoutter also dismissed other evidence for substantial high flood levels, such as deposits of silt alongside the fortress at Mirgissa (Bell 1975: 232-233; Seidlmayer 2001: 76). Bell, and later De Putter, both understood the Nile level records in the Semna region to confirm a series of extraordinarily high Nile floods during the late 12th and early 13th Dynasties. Seidlmayer also followed this theory (2001: 79), and added that the ancient flood levels at Aswan stood on average 91m above sea-level (4.5m higher than the modern level), while in the late Middle Kingdom this increased to 95.70m above sea-level (Seidlmayer 2001: 79). De Putter already recorded that the difference between low and high water levels is 50% greater at Semna than at Aswan, which indicates that the topography of the river influences the impact of the flood in different regions (De Putter 1993: 261). This could indicate that Middle Egypt, with a much broader floodplain, was less affected by these high Niles – something already noted by Gardner Wilkinson who found that there was no evidence of flood destruction north of Gebel Silsila (1853: 99). While such high floods would seem catastrophic in modern times it should be noted that significant urban sprawl into flood prone areas has occurred since the construction of the Low and High Aswan

²² Flood records were taken at nilometers in order to judge the amount of taxation that the state would place on the population (Said 1993: 193). Bell's consideration of the events as 'curiosities' is not proven by other Nile records, although with the exceptional nature of the high floods recorded at Kumma it is possible that the Egyptians may have seen some deeper meaning in them (such as is revealed in the stela of Sobekhotep VIII below).

dams (Parcak 2008: 65). In previous centuries construction in these areas would not have been possible and so high floods were perhaps less destructive. This thesis also follows the evidence that the late Middle Kingdom witnessed a series of extraordinarily high floods. These high floods impacted ruling regional families further north in Egypt which were already weakened by the restrictions placed by Senwosret III (see section 6.3; Franke 1991: 51). These families, less capable of mobilising resources in order to manage the impacts of high floods, would have subsequently been considered unable to exert control (Coulon 2008: 2). Local inhabitants may therefore have acted on their own initiative to ensure that agricultural areas remained viable and levees maintained (Butzer 1976: 43). This restructuring of the responsibilities of local populations can also be seen in provincial areas into the New Kingdom when the nomarch administration never returned to its early Middle Kingdom form.²³

Ideal flood levels: The White Chapel

The White Chapel of Senwosret I at Karnak preserves a number of geographic records relating to the Egyptian Nile Valley. The data regarding the Oryx Nome and the length of Egypt has been covered above in chapter three while here the records relating to Nile flood heights across Egypt will be considered. These records date to the 12th Dynasty and are therefore contemporary with the cultural landscape that forms the subject of this thesis – however, some later data can also be used to confirm the use of this data as correct at its time of recording.

²³ Butzer makes references to the period of high Nile floods recorded at Semna and Kumma and their impact on a centralised state. He believed that these could have been managed by the officials employed by Amenemhat III. However, he demonstrated that the high floods of 1818-19 ‘were an occasion of terror and massive rallying of the rural populace’ (1976: 51). If this was the case during the early 13th Dynasty, the weakened regional controlling families may have been incapable of assisting the local population or managing the effects of these high floods.

The heading, *sšm-ḥ.t ḥḥ ḥꜥpy m*, ‘anticipated height of the flood in...’ is given above the numerical data (Lacau and Chevrier 1956: 238-241, Pl. 42). This is divided into three localities where flood levels have been recorded: Elephantine, Per-Hapy (by Memphis) and Behdet (Tell el-Balamun). The first is considered the traditional southern border of Egypt, and the last as the northern extent of the country before the Nile reached the Mediterranean. The record from Per-Hapy was likely taken as the final reading before the branching of the Main Nile into the Delta area around the administrative centre of Memphis (Bell 1975: 226; Schlott-Schwab 1981: Pl. 8; Seidlmayer 2001: 93). Each of the localities are listed with the ideal height of the flood expected in that area. Two further columns give the height of water above the fields between the three settlements.

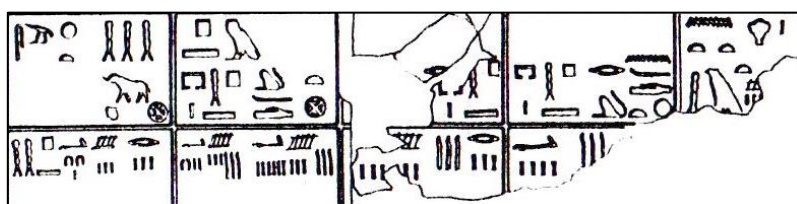


Figure 4.13: The ideal flood levels as recorded in the White Chapel of Senwosret I at Karnak, Lacau and Chevrier 1956: Pl. 42.

<i>Sšm-ḥ.t ḥḥ ḥꜥpi m</i> Anticipated height of the flood in	
<i>ḥi ḥꜥpi, 3bw</i> Nile flood at Elephantine	<i>mḥ 21 šsp 3 1/3</i> 21 cubits, 3 1/3 palms (11.28 m)
<i>Pr-ḥꜥpi</i> Memphis	<i>mḥ 12 šsp 3 dbꜥ 3</i> 12 cubits, 3 palms, 3 fingers (6.58 m)
<i>Ph bḥd.t</i> Tell el-Balamun	<i>mḥ 6 šsp 3 dbꜥ 3</i> 6 cubits, 3 palms, 3 fingers (3.43 m)
<i>[3bw] r pr-ḥꜥpi</i> Elephantine to Memphis	<i>mḥ 5 šsp 2 dbꜥ 3 1/3</i> 5 cubits, 2 palms, 3 1/3 fingers (2.84 m)
<i>Pr-ḥꜥpi r ph n bḥd.t</i> Memphis to Tell el-Balamun	<i>mḥ 4 dbꜥ 3 1/3 [1/3]</i> 4 cubits, 3 1/3 palms (2.36 m)

1 cubit	0.525 m
1 palm	(7 palms to one cubit) 7.5 cm
1 digit	(4 digits to a palm, 28 to a cubit) 1.875 cm

Table 4.8: Above, the ideal flood levels as recorded in the White Chapel of Senwosret I at Karnak, after Lacau and Chevrier 1956: 238-240, and Seidlmayer 2001: 93-94. Below, measurements broken down for reference in the table above, after Lacau and Chevrier 1956: 241.

The levels recorded between Elephantine and Memphis cannot correlate with the modern flow of the River Nile. An average flood recorded during the period 1870-1899 at Aswan only reached 8.2m, over 3m lower than the Senwosret I record (Said 1993: 144). This may indicate that Nile flows were significantly higher during the early 12th Dynasty,²⁴ However, the average readings from Cairo during the nineteenth century remained around the same as that of Senwosret I. Both Bell and Said account for this discrepancy by proposing that the zero-point for the Aswan nilometer was positioned lower than that of the Cairo nilometer, thus not giving a representative reading of a single flood throughout the country – but instead a reading relative to the area named (Bell 1975: 226-229; Said 1993: 144). This lower zero-point is explained by the establishing of the nilometer during a period of low Niles in the First Intermediate Period that had not been recalibrated with northern counterparts by the reign of Senwosret I. Further records on the White Chapel also record the ideal level of water that should have been expected to cover the fields.²⁵ These are indicated in the final two rows of table 4.8. This data can be used to give a general impression of the land that would have remained above water during the reign of Senwosret I in the Oryx Nome.

Literary texts

A number of Middle Kingdom literary texts refer to flood levels and environmental change. It is outside the scope of this thesis to discuss all of them, but those relating to

²⁴ Herodotus recorded that the Nile must rise a minimum of 15 or 16 cubits (7.88m – 8.40m) to cover the land (II: 13) – figures which fit neatly in the average of figures preserved on the White Chapel.

²⁵ Bunbury et al. give a measurement of 1.87m to 2.39m depending on the translation of the figure in the lacuna (2008: 355), although Butzer gives a figure of just 1.5m (1976: 17; Brown 1997: 7). This lower figure may relate to the nineteenth century levels of water in basins, which Said gives as 1.25-1.50m (1993: 188).

the Oryx Nome can be mentioned.²⁶ As introduced in chapter three, Beni Hasan is the location of the highly decorated tombs of the Oryx Nome's regional officials. The autobiography of Amenemhat, nomarch of the Oryx Nome, makes reference to a period of fluctuating Nile levels and their significance within his role as administrator of the region.²⁷

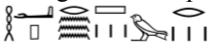
- [19] *iw hpr.n rnp.wt hkrw*
(When) years of hunger came into being
- [20] *ḥꜥ.n.(i) sk3.n.i 3ḥ.wt nb.wt n M3-ḥd*
I stood up and ploughed all the fields of the Oryx Nome
- r tš.f rsy mḥty*
to its southern and northern boundaries.
- s:ḥnh hrw.f ir šbw.f*
so that its inhabitants could live, so that its food could be made.
- n hpr hkr s s.t im.f*
Not a hungry man or woman came into being in it (the Oryx Nome)
- r-di.n.i n h3r.t mi nb.t hy*
I gave to the widow the same as to the married woman
- [21] *n stny.i wr r šri*
I did not make a distinction between an elder or child
- m r-di.t.n.i nb.t*
in all that I gave.
- ḥꜥ.n ḥꜥpy.w wr.w hpr*
Then great Niles occurred
- nb.w it nb.w ht nb.t*
possessing barley and wheat and all things
- n šdi hr-ḥ n iht.t*
(but) I did not exact arrears from land-tax.

This extract is found at the very end of Amenemhat's autobiography and outlines his service to the people of his nome during times of strife caused by environmental

²⁶ For a broader discussion of literary texts from the Middle Kingdom and their relation to environmental change see Bell 1975 and Bunbury and Jeffreys 2011.

²⁷ Amenemhat's autobiographical inscription is recorded in BH I: 27, pl. 8. A translation is offered in Simpson 2003: 419-420.

changes. A period of hunger likely refers to a time of low Nile floods resulting in a lack of agricultural fertility and production. This is confirmed by the later reference to a period of ‘high Niles’, as a comparison to the former situation. Reference to ‘high Niles’ may relate to two events either, a) a number of years in which the Nile rose high enough to inundate the agricultural land of the Oryx Nome, or b) one year in which a number of branches of the Nile rose enough to flood the surrounding fields. The use of the word *ḥꜥpy* rather than *itrw ʕ3* to indicate the Nile may indicate that the latter of these theories is true and that it should instead be translated as ‘great floods’ or ‘great waters’ as opposed to ‘great Niles’.²⁸ If this is true, then this extract can be used to indicate that the period of Amenemhat’s service (the reign of Senwosret I) experienced times of fluctuating flood levels and may also give evidence for more than one branch of the Nile existing in the Oryx Nome.²⁹ In fact the use of three plural strokes following *ḥꜥpy* and *wr.w* may point to the existence of at least one more branch after the Bahr Jusef and main branch are accounted for. That the flood levels of the Nile changed noticeably during one lifetime should not be viewed as uncommon, but the reaction of officials to these changes implies that dealing with irregular floods was part of their role and clearly shows that the reliance on the Nile inundation was significant to valley populations. Correlating Amenemhat’s autobiography with the ‘good floods’ presented in the White Chapel of Senwosret I above, proves more difficult. There are no preserved flood level recordings from the reign of Senwosret I other than those professing ‘good floods’ in the White Chapel and no records from the Oryx Nome itself. Therefore, the White Chapel cannot be

²⁸ The *Wörterbuch* translates *ḥꜥpy* as flood/inundation/waters regardless of plurality indicated in the original text (WB III: 42-43). The original hieroglyphs read:  (BH I: Pl. 8).

²⁹ The possibility of a number of channels existing within the Egyptian floodplain during this time has also been proposed by Butzer 1976: 17; Graham 2010: 125; and, Bunbury and Jeffreys 2011. The work of Macklin, Woodward and Welsby in the area of the Northern Dongola Reach has also shown that numerous channels existed in the Upper Nubian floodplain during this period (Macklin and Woodward 1998; Macklin et al. 2013: 696).

taken as an accurate recording of events during inundations through the reign of Senwosret I, particularly considering that the readings provided are already 3m higher than modern records. Likewise, Amenemhat may be utilising a theme prevalent in autobiographies from the First Intermediate Period in which regional officials show their worth to local populations by professing their deeds during times of difficulty and famine (Moeller 2005b: 165-166; Coulon 2008: 2-3). The points made above can still be of use in determining the dynamism of Egypt's annual cycle, and in particular the possibility of numerous Nile branches throughout Middle Egypt during the 12th Dynasty and the regional management of flood cycles.

Times of dry Niles

Periods of low water in Nile branches and canals were also not uncommon and during non-inundation seasons minor waterways could completely dry up. References to dry branches of the river being crossed on foot occur in the *Prophecies of Neferti*, and in the *Tale of Sinuhe* (see Bunbury and Jeffreys 2011 for a discussion of these situations). This phenomenon is still apparent in areas of the Oryx Nome today (see figure 4.15 below) and was recorded in tales of nineteenth century travellers prior to the construction of the Aswan low dam. One such individual to make reference was Major William Joseph Myers during the late nineteenth century. Myers was employed in the British Army and stationed in Cairo from 1882-1897. On Sunday 15th July 1883 Myers recorded in his diary:³⁰

‘Walked across the arm of the Nile which is quite dry. The water is very low in the Nilometer but is rising.’

³⁰ Myers diaries are unpublished but now kept at Eton College along with a collection of Egyptian antiquities he collected on his travels to Egypt as Aide-de-camp to the British General in Cairo (Georganteli and Bommas 2010). Transcription presented here by permission of Eton College.

He wrote this at a time when the main Nile was beginning to rise prior to the inundation in August. This entry provides a very obvious link with the references of ancient Egyptians also crossing dry Niles; not necessarily referring to the main branch, but one of the smaller branches that can still be seen between islands in the valley. The arrival of the inundation was often celebrated in these dry river beds and Myers made special effort during his visits to Cairo to view the cutting of the Khalig el-Misri dam in August. This ceremony was a tradition in the city whereby the dam was cut when water in the Rhoda Nilometer reached 16 cubits (Williams 2008: 36). This was measured as being the ideal height of the Nile flood providing just enough water to cover the fields of the valley, and was the same height recorded by Herodotus millennia before. Myers records the ceremony briefly in his diary entry on Saturday 16th August 1884:

‘All the Pachas & principal sheiks in Cairo were present in full fig. Nubar acting for Kediye. At eight o’clock a signal was given and the men and boys down below went to work like mad and soon let the water in. Coins were then scattered among the crowd and a tremendous scramble ensued. The Canal took some time to fill up. There was then a kind of religious ceremony in the tent and the Cadi, the head Ulema & some others were invested in green robes trimmed with fur, presents from the Khedive.’

The ceremony was a public spectacle in which everybody celebrated the coming of the inundation and gifts were distributed by the Khedive.³¹ Similar ceremonies likely occurred throughout Ancient Egypt, and archaeological remains at Elephantine attest to similar practices taking place during the early 12th Dynasty, certainly through the reigns of Montuhotep Nebhepetre, and Senwosret I. Each Pharaoh commissioned a

³¹ Myers records in 1885 that the Khalig el-Misri was to be built over and the tradition would end, ‘This is said to be the last time the Khalig will be cut as it is to be covered over and utilised for drainage they say. I shall believe it when I see it. The Nile has risen so quickly this year.’ Myers was right to be sceptical as he still writes about canoeing down the Khalig during the inundation of 1887. It was eventually filled in around 1899 (Williams 2008: 36) and the present Sharia Port Said (previously Sharia Khalig Masri) follows the route of this canal. This reflects the impacts of modern hydrological management on the changing character of the river.

new Satet temple to be constructed in the town, and each was equipped with a separate room in which to celebrate the coming of the inundation by allowing the flood waters to enter the rooms and fill a specially carved stone pool (Kaiser 1998: 49 and 52). The complex of Senwosret I also allowed excess water to flow through a series of pipes into a courtyard below the temple in which the general population could also celebrate this event (Kaiser 1998: 52-54).

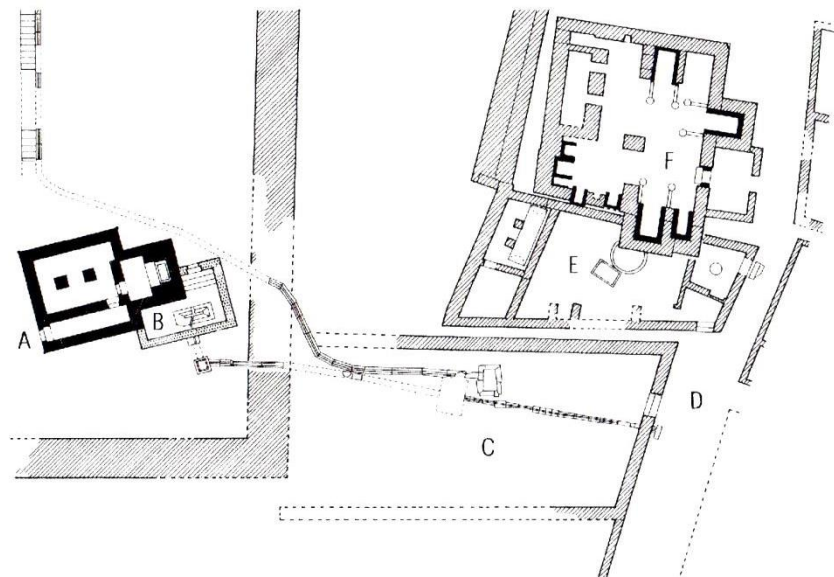


Figure 4.14: *The Senwosret I Satet temple complex at Elephantine (A). The adjoining room including ritual stone basin for celebrating the coming of the inundation is indicated at point B, while the public courtyard can be seen at C. A separate channel taking flood waters out of the courtyard and into the street can also be seen at D (Kaiser 1998: 53, fig 11). Courtesy of the German Archaeological Institute, Cairo.*

Narrow branches of the Nile are still visible in the floodplain today, although less common than they were prior to the construction of dams at the first cataract. Figure 4.15 shows the area of Gezirat Sheybah, no longer an island in the centre of two branches, but instead connected to the east bank beneath Sheikh Timai. During periods of higher Nile flow (when greater discharge is released at Aswan) this channel once again flows with water. During the dry periods fields are able to be cultivated and urbanism can expand into the area. The course is visible even in dry periods due to the alignment of field boundaries and shape of settlements along its course. The

now seasonal channel was previously the main branch of the Nile, according to the *Description de l'Égypte* atlas.



Figure 4.15: *The former island of Gezirat Sheybah can be seen in the valley beneath the cliffs of Sheikh Timai, 7km south of Beni Hasan in Middle Egypt. The old river branch runs between the island and the cliffs and runs dry during the low water seasons but fills during the inundation period – a time when higher levels of water are now released from the Aswan High Dam. The seasonality of this course has allowed some agriculture to advance and urban areas to sprawl – although the former riverbank is still preserved in the long ribbon-like shape of Naga Sheybah.*

Flood stela of Sobekhotep VIII

A 13th Dynasty stela dated to the fourth year of the reign of Sobekhotep VIII details an account of a high inundation that flooded the central hall of Karnak temple. Baines has dated the record to around October 1650BC, the very end of the 13th Dynasty (Baines 1974: 42). As figure 4.10 indicated, October does not represent the peak of the inundation; the stela therefore records an exceptionally late flood surge, and of an extraordinary height. However the stela does not portray this event as a concern, instead the king who is ‘beloved of the inundation’ goes to see the water and wade through it. Baines interprets this as the King re-enacting the role of the creator god at the moment of creation by wading through the waters of Nun (Baines 1974: 43). That

is not to imply that this flood did not have devastating consequences for the Egyptians living along the banks of the river. It does however demonstrate a possible continuance in high floods from those recorded at Kumma and Semna – perhaps even confirming that high floods were not unusual occurrences, and could be seen as good omens for the year ahead.

Summary

The evidence discussed above clearly indicates that the late Middle Kingdom was a period of rapid climatic change. Though this thesis primarily covers evidence from the early Middle Kingdom, it is clear that the reforms of Senwosret III (see section 6.3) severely impacted on the organisation of the Oryx Nome and the nomarch system in general. The lack of evidence referring to high or low Niles from the earlier Beni Hasan tombs may be indicative of either a period of average flood levels, or that these events were more easily managed by an established system of regional control by local families able to command resources. Hassan has also indicated that irrigation was probably controlled at a regional level, with ‘no indications of a state-controlled irrigation system’ from Ancient Egypt (1997: 55). While this may seem unusual for a centralised state, Hassan has demonstrated that local organisation of hydraulic systems would have been more than sufficient to meet the needs of the provincial populations (1997: 52).³² Thus the collapse of the Middle Kingdom may have been a combination of both political changes initiated by Senwosret III and environmental changes caused by high flood levels prior to the Second Intermediate Period. The established local nomarchial system that had prevailed in Egypt since the Early

³² Said argues that basins were flooded by ‘a crude but effective system of irrigation’ that changed little from the introduction of agriculture into Egypt until the Greco-Roman Period (1993: 191). Said also agrees that, due to the relatively stable level of the Nile during the Pharaonic Period, there was no need to implement a national system of irrigation (1993: 193).

Dynastic Period was well equipped with the resources to mitigate yearly changes in the flood level, but restricting this system left regions vulnerable.

River channel movement in the Nile Valley

The effects of river channel movement in the Nile Valley and its impact on ancient Egyptian civilisation has recently become the focal point of a number of archaeological surveys and as such it is only in the last decade that substantial advances have begun.³³ Butzer's pioneering work, published in 1976, already postulated that the main course of the Egyptian Nile was once much further west than its current position, which in many locations (notably in the Oryx Nome) presently flows directly against the cliffs of the eastern desert (Butzer 1976: 35). The natural attitude of major rivers, particularly those with annual flood regimes, is to migrate across their floodplains and the Nile is no exception. Rivers can migrate steadily or else they may avulse (rapidly move channel), or branch (anabranh or anastomose) causing the floodplain to divide. This section will deal with each of these processes and contribute some evidence for these movements within the Middle Egyptian Nile Valley over the past three centuries. Many of these processes have left a lasting impression on the floodplain today and are visible using satellite imagery or maps.³⁴ By using maps from differing periods it is possible to understand these processes and the speeds at which they occur. For the purposes of this discussion satellite imagery from Google Earth has been used, as well as survey maps from the twentieth century.

³³ The Theban Harbours and Waterscapes Survey, as well as the Delta Survey (both implemented under the auspices of the Egypt Exploration Society) have utilised satellite images and coring to better understand monuments within a wider environmental context. Similar research by Judith Bunbury and Salima Ikram in the Kharga Oasis is revealing the dramatic changes in the western desert environment since the Pharaonic Period (2014)

³⁴ Bunbury et al. analysed Nile movements around the temple of Karnak and deduced that it was possible to interpret past landscapes in the Egyptian floodplain through the use of satellite images (2008: 369). This thesis therefore utilises Google Earth images, as well as maps, to trace recent changes in the morphology of the Nile. Parcak (2009) has used satellite remote sensing to map the ancient natural environment, particularly settlement patterns. However, this technology is less useful in areas where current settlements or cemeteries cover the ancient remains (Parcak 2010: 17; Baines 2013: 6).

The atlas of the *Description de L'Égypte* has also been used to understand the relative positions of formations and the speeds of processes within the valley. Parcak has demonstrated that use of the *Description* atlas is relatively accurate, especially when used alongside more modern tools, such as Google Earth (2010: 4, 12).

Nile migration

Although all of the following fluvial processes could be termed ‘migration’ this thesis will use this term to refer to the gradual movement of the River Nile laterally across its floodplain (Brown 1997: 25-33). This process is dependent on the erosive power of the river, its deposition regime and the topography of the valley it creates. River channel migration is particularly prevalent at bends and meanders in the water course but can also force the movement of the channel further downstream too (Graham 2010: 126). As the river erodes one bank (usually the outer bank of the bend) it also deposits sediment on the opposite bank. This is due to the differing velocity of water affecting the carrying capacity of the river. The faster the water the less chance the river has to deposit its load resulting in aggradation of the inner bends which forces bends to migrate outwards and downstream (Lutley and Bunbury 2008: 3). The rate of this migration in the Nile Valley has been estimated at a number of sites based on known channel changes:

Rate of Nile migration (per 1000 years)	Region	Source
2-3 km	Luxor	Hillier et al. 2006: 1.
Up to 9 km	Various	Lutley and Bunbury 2008: 3.
2-9 km	Various	Graham 2010: 126.
2 km	Memphite	Bunbury and Jeffreys 2011: 65.

Table 4.9: *Estimates for Nile migration rates within the Nile Valley based on cartographic, archaeological and textual evidence.*

While Butzer considered that the Nile once flowed much further west in Middle Egypt than its current position (1976: 35), recent archaeological fieldwork

around the temple at Karnak and the Luxor area has shown that the Nile has migrated to the west (actual north-west) in this area allowing for substantial urban spread – particularly in the case of the constructions at Karnak itself (Bunbury et al. 2008: 368). This indicates that localised trends occur within the Nile Valley and demonstrate the necessity for analysing each locality separately while at the same time understanding it as part of an interdependent geospatial system.

Migration of the Nile within the Oryx Nome is clear from modern maps. During the making of the atlas for the *Description de l'Égypte* the town of El-Karm, opposite Beni Hasan, was located directly alongside the main branch of the Nile (as can be seen in figure 4.16). By the twentieth century the river had begun to silt up on the inner, western side, of the bend as can be seen in figure 4.17. By this time the management of the annual flood through the construction of the dams at Aswan had reduced the impact of the river on the natural environment and modern Google Earth satellite imagery indicates that the river has straightened and narrowed around El-Karm since the maps of the mid-twentieth century, visible in figure 4.18. However, the town of El-Karm has retained its shape and continues to expand along the raised historic river levee giving it the advantage of building on higher ground and thus protecting the inhabitants from the threat of flooding and the high water table.



Figure 4.16: The town of El-Karm (named Karm abou Omar) can be seen on the west bank opposite Beni Hasan, situated directly on the bank of the main Nile branch in this map from the *Description de l'Égypte* in 1820.



Figure 4.17: In this map created in 1913 it is possible to see that El-Karm has retained its location by the river bank, however the gradual silting up of the channel is clearly visible because of the formation of islands and sand bars within the river.



Figure 4.18: This satellite image from Google Earth taken in 2016 shows the current position of El-Karm. It is no longer situated alongside the shore of the river bank, but is now located 1km away on an old levee 2-3m higher than the surrounding land (highlighted by the dashed line). The old shoreline of the river is still visible in the shape of the town, and also the road networks leading north and south from it. The irregular field boundaries also betray the recent environmental changes.

A 2012 study by Bunbury and Malouta considered texts and geographical changes to better understand the relationship between the sites of Hermopolis and Antinoopolis, just 13km south of Beni Hasan. The evidence indicated that substantial changes in the location of the Nile had occurred during dynastic history influencing

the sway of power between the two settlements (Bunbury and Malouta 2012: 119-121). The complex arrangement of naturally branching waterways in the valley around El-Ashmunein (Hermopolis) can be seen in the *Description de l'Égypte* atlas (figure 4.19). These small channels would have facilitated transport by boat around the Nile Valley, as well as providing suitable environments for substantial vegetation and riverine fauna to gather.³⁵ A cross-comparison with modern satellite images indicates that these irregular natural watercourses have since been straightened out and canalised within the valley to make transportation more efficient (see figure 4.20).



Figure 4.19: The region around the ruins of Hermopolis and Antinoopolis as depicted in the *Description de l'Égypte* atlas. The many natural waterways can be seen flowing laterally across the valley between the main Nile channel in the east and the Bahr Jusuf in the west.

³⁵ Both Butzer and Graham have argued that the greater discharges of water and silt prior to the Aswan Dam construction would have produced a much more braided river valley with a higher concentration of islands and bars in the main channel (Butzer 1976: 16-17; Graham 2010: 125).



Figure 4.20: *The area around the tell of ancient Hermopolis (El-Ashmunein) in 2016 indicating the waterways that have been straightened by canalisation within the floodplain.*

Island formation and river movement

One of the most prevalent ways in which rivers migrate is to form islands in their channels through deposition. These islands can grow to substantial sizes and become more stable as vegetation begins to colonise them. This vegetation also serves to trap further sediment and subsequently increase the island size and height. Eventually these islands trap sediments between themselves and the bank of the river causing them to join and in the process leave only one branch of the river (on the eroding side) clear (Graham 2010: 127). This increases the velocity of the river through the narrower channel, which increases the rate of erosion and eventually migration of the river away from the island. The process of river migration around an island can take an indefinite period of time, although Hillier et al. measured a rate of 200 years for a 1km wide island in the Luxor region to be adopted into the local floodplain (2006: 3). As mentioned earlier, once the island is incorporated into the cultivation a seasonal channel may still remain until it is stabilised by agriculture or aggradation. During the

time of island formation it may provide suitable growing areas for marsh plants as well as wetland areas for riverine fauna to gather and fish to spawn (Burn 2014: 44-45). These areas become attractive habitats for humans because of the concentration of natural resources, as well as the security that an island location offers. Not only is it surrounded on all sides, it is also secure against river erosion and gives potential for future urban expansion after it adjoins the nearby river bank (Graham 2010: 139). A number of localities within the Oryx Nome area exhibit evidence of river movement through island formation over the last 300 years. This formation has also resulted in the narrowing of the main Nile branch and its current position directly against the eastern desert cliffs through much of the region (Butzer 1976: 35). The presence of ancient islands (or paleo-islands) can be seen through outlines remaining in irregular field boundaries, settlement patterns and transport networks, as seen in figure 4.15 above (Lutley and Bunbury 2008: 4).

One of the clearest examples of island formation and subsequent incorporation into the floodplain within the Oryx Nome area can be seen south of El-Minya. A large low-lying, seasonally flooded area was gradually stabilised by deposition until an island formed. This island continued to encourage further siltation of the shallow channel on the depositing side of the water branch until it eventually became a part of the western floodplain (figures 4.21-4.23).



Figure 4.21: The area to the southeast of Maqusah in the *Description de l'Égypte* atlas appears to be low lying and empty of settlement. It is possible that this area was seasonally flooded and so restricted the expansion of settlement up to the river bank.

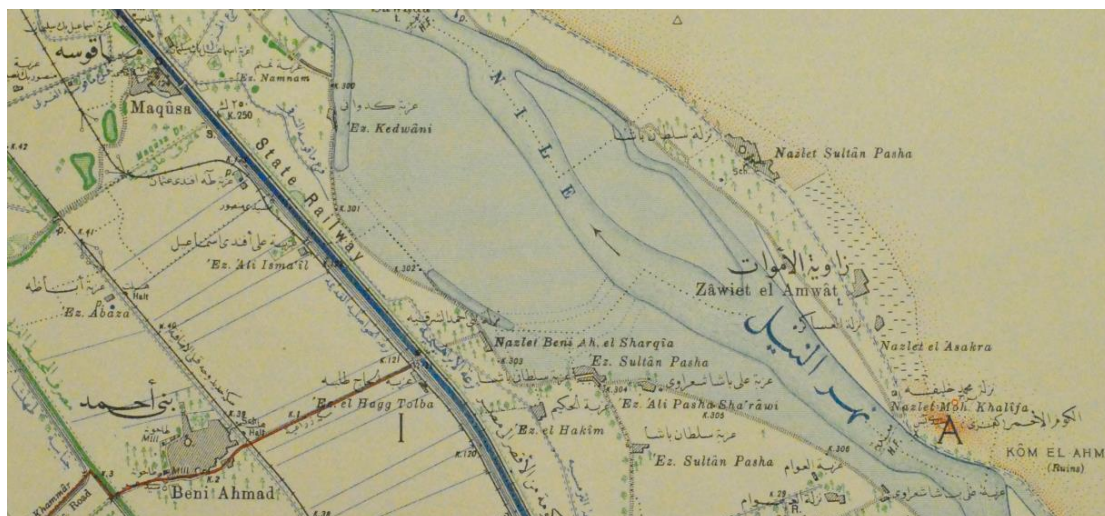


Figure 4.22: In 1912 the area east of Maqusah is an inlet of the main Nile branch with some shallow sandbanks. This inlet extends from east of Maqusah south to a point east of Nazlet el-Awam.



Figure 4.23 By 2016, Google Earth satellite imagery reveals that the shallow sandbanks of the early twentieth century have become a part of the larger landmass of the west-bank floodplain. The earlier shoreline can be traced in the field boundaries and settlement patterns. The shape of a large island can clearly be seen by the riverbank surrounded by irregular field boundaries.

Due to the somewhat transient and dynamic nature of island formation in the Nile Valley, the identity of islands can change over the course of their existence. One such example can be found opposite Beni Hasan and Sheikh Timai (figure 4.24-4.27). In this case the island was named after the town that occupied it, Gezirat Zaafrânéh.³⁶ However, after the water channel migrated passed the settlement, the island's name changed to reflect a nearer geographic locality, in this case the local peak Sheikh Timai. This is not an isolated example and many more paleo-islands can be found in Middle Egypt such as: Gezirat Sharunah (opposite Maghagah), Gezirat Siririya (opposite Samalut), Gezirat Bushra Hanna (opposite Tihna al-Gebel) to name a few.

³⁶ Zaafraneh is the Arabic word for the spice flower saffron and it was suggested to the author by Dr Martin Bommas that this may indicate the economic resource that was cultivated on this low lying island. This provides an intriguing insight into analysis of toponyms in the Nile Valley and their use in identifying past use of sites. Parcak gives the site of Tell Tebilla as an example of where an ancient name can reflect the settlement's original function (2010: 12). Similarly, Kom el-Ahmar – literally, 'red mound' – refers to the red pot sherds that usually typify these sites. At least two places named Kom el-Ahmar are located within the boundaries of the Oryx Nome, indicating that archaeological sites have been recognized in this area since at least the *Description de l'Égypte*.

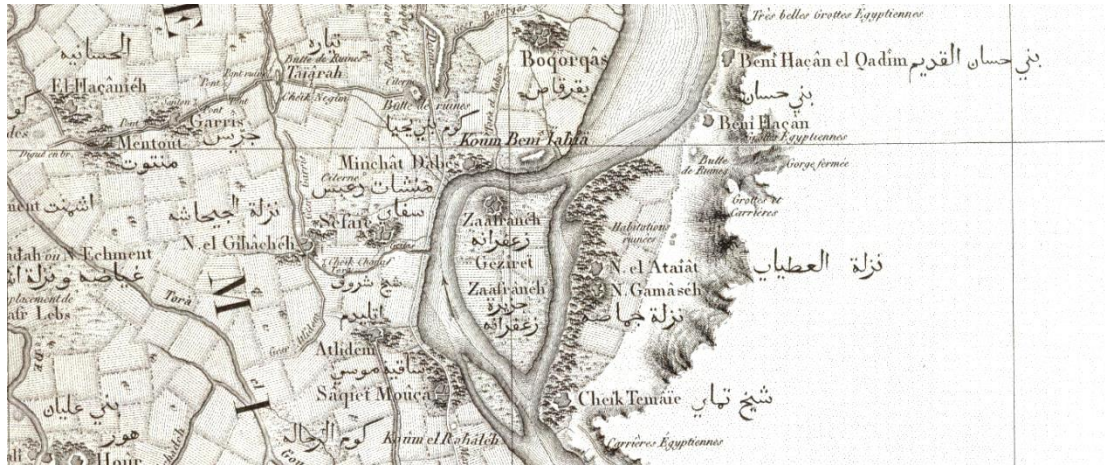


Figure 4.24: An island named Gezirat Zaafrânêh (Saffron Island) is shown in the *Description de l'Égypte* opposite Beni Hasan and Sheikh Timai. The arrow in the river channel indicates that the main Nile branch flowed to the west of this island between the two towns of Minchât Dabes and Zaafrânêh itself. Although this image appears to show a bend in the river, it is important to note that this merely reflects a small section of the larger bend that extends from El-Minya in the north to Sheikh Timai in the south. The subsequent changes occurring in this locality can still be used to show the outward expansion of meanders in the Nile valley.

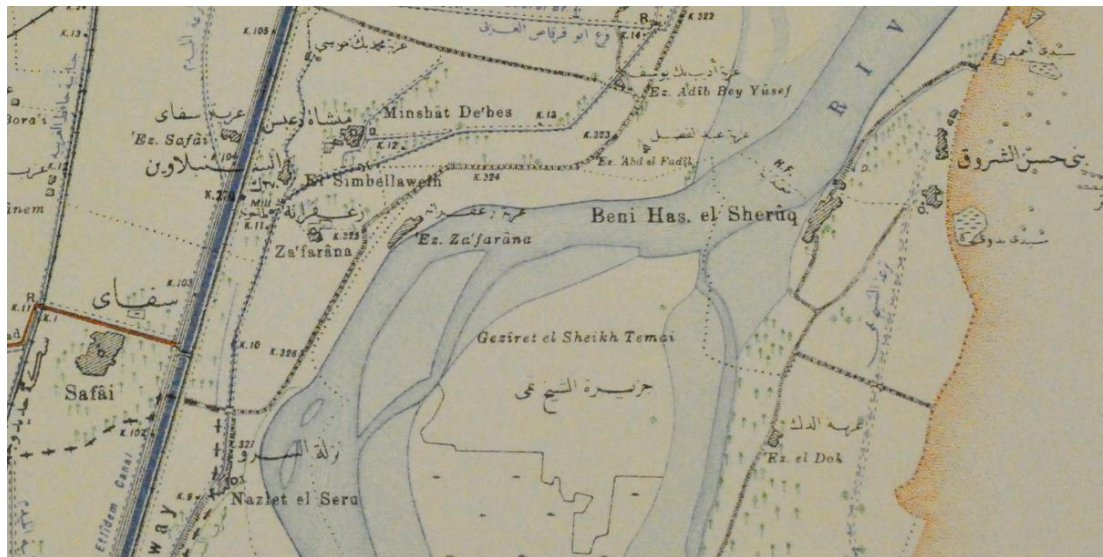


Figure 4.25: Records from 1913 indicate that the island had changed name from Gezirat Zaafrânêh to Geziret Sheikh Timai. This change reflects the changed position of the Nile over the past century. The main branch of the river now flows to the east of Zaafrânêh and the area between Zaafrânêh and Minchât Dabes is now apportioned to the western floodplain.



Figure 4.26: Although the island is still visible, due to the seasonal river channel to its west, it is clear that the main branch of the Nile now flows to the east of Gezirat Sheikh Timai. The two towns of Zaafrânéh and Minchât Dabes can still clearly be seen north of the island and separated by a 400m strip of agricultural land. Despite the gradual incorporation of the island into the surrounding floodplain it has so far retained the name Gezirat (island).



Figure 4.27: This painting from Lepsius' *Denkmäler* dated to around 1849 shows the top terrace of rock tombs at Beni Hasan in the forefront with the Nile River in the right background. This view indicates the presence of an island within the main channel and Graham has indicated that this formation would promote an eastward migration of the Nile (2010: 130). The curve further upstream to the west is more evidence of the sharp bend to the north of Gezirat Zaafrânéh that no longer exists since the straightening out of the Nile after the construction of dams at Aswan.

Paleochannels

As indicated previously, map evidence from the area of the Oryx Nome clearly indicates more recent river channel migrations. These are visible in the small field or ‘hod’ boundaries within the cultivation which are usually oriented perpendicular to the nearest watercourses (Hillier et al. 2006: 4). This arrangement aids with the irrigation of the fields by allowing the channels around the borders of fields to receive water and distribute it away from the higher level of the levee by force of gravity alone (figure 4.28). By searching for irregular field boundaries it is possible to find paleochannels of past watercourses within the milieu of agricultural land (figure 4.29). These paleochannels are not always of ancient origin, and dating them requires study alongside ancient remains, or through auguring and analysis of deposits within them. However, by understanding their formation and mapping their locations a reconstruction of the previous natural processes affecting the floodplain and its inhabitants can be proposed. Bunbury et al. have demonstrated that ‘it is possible to interpret the past landscapes of the Upper Egyptian floodplain from satellite images and maps’ (2008: 369) when they studied previous natural environments of the Luxor region in preparation for further physical survey. From evidence shown above, and the imagery available through software, such as Google Earth, it is clear that this is also possible for the area of Middle Egypt – and in this instance, the ancient Oryx Nome.

The study of ancient Nile branches and channels reveals much about the nature of riverine urbanism and settlement location. Recent work in Nubia by Macklin et al. has shown that the Northern Dongola Reach was covered in numerous Nile branches around the site of Kawa (1998; 2013). These channels influenced where settlements were founded and subsequently where the inhabitants relocated to when these channels migrated elsewhere in the valley (Macklin et al. 2013: 696).



Figure 4.28: *These field boundaries in 2011 between Manhari and El-Karm exemplify the arrangement of field boundaries perpendicular to local watercourses. The three drains flowing through the image provide irrigation water for the fields and so the channels flowing between each allotment must be able to receive the water from them.*



Figure 4.29: *Irregularly defined field boundaries, such as these to the east of Balansura in 2011, may be indications of a now extinct channel of water (indicated by the dashed line). In this case the field boundaries evince the presence of a now lost water course that drained into the Bahr Jusef to the west of this shot. This specific paleochannel can be traced for roughly 6km in the modern cultivation and is also visible in the Description de l'Égypte.*



Figure 4.30: The same area depicted in figure 4.30 shown in the *Description de l'Égypte*. The sinuous channels around Balansura and El-Birba are clearly marked; it is these channels that underlie the irregular field boundaries seen in satellite images today.

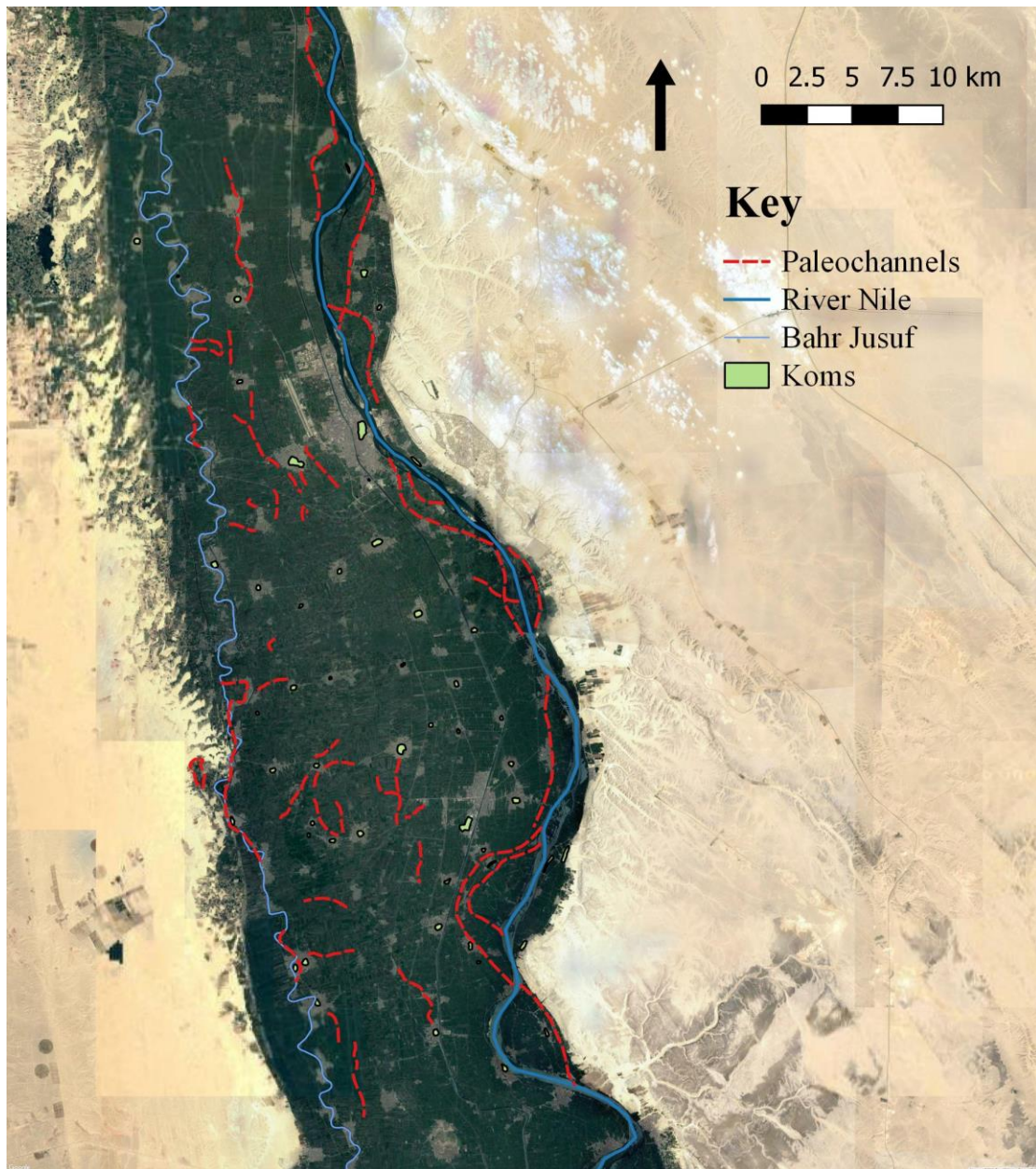


Figure 4.31: Paleochannels currently visible in the region of study. More ancient channels are indicated by past levees now visible in the north-south arrangement of settlements in the broadest areas of the floodplain.

Nile avulsion

Mackay has previously shown that the rapid abandonment of cities along the Euphrates, Tigris and Indus rivers in antiquity was due to the avulsion³⁷ of their waterways leaving them lacking the necessary transport and irrigation infrastructure

³⁷ Graham refers to avulsions as river ‘jumps’ whereby a shallower channel can silt up causing the river to move to the deeper channel (2010: 126).

(1945: 136-137).³⁸ Morozova's more recent work has shown that avulsions along the Tigris and Euphrates rivers can be caused by high floods, channel blockages, aggradation, tectonic movement, and failed levees (2005: 408) while Schumm's analysis of ancient riverine civilisations concluded that the Tigris and Euphrates was constantly unstable, while the Indus was initially stable but a period of change caused the downfall of the Harappan culture. On the other hand, Schumm believed that the Nile provided long term stability and caused no catastrophic periods in ancient Egyptian history (2005: 183). However, Schumm's analysis only considers the Egyptian Nile in its entirety, without breaking it down into its differing geographic areas, particularly valley and delta regions. Morozova demonstrated that the low gradient plains of the Tigris and Euphrates contributed to the frequency of avulsions in river channels in these areas (2005: 408). The variety in topographic environments along the Egyptian Nile necessitates local analyses of riverine phenomena. Makaske has recorded that braided rivers and deltaic plains are areas where avulsions have been recorded (2001: 159).³⁹ The branches of the Nile delta are well-known to have changed their courses over time, most famously in the case of Per-Ramesses in the Eastern Delta (Hamza 1930: 66; Habachi (1955) 2001: 117-119; Bietak 1981: 283). This example not only serves to indicate the process of avulsion, it also reveals the impact that avulsion could have on urban centres within the valley and the changes it can cause to transportation routes. Makaske also refers to meandering river

³⁸ Lutley and Bunbury have also referred to settlements being left 'high and dry' following river migration, but this can reflect a more gradual change in channel that allowed the Egyptians to steadily move their settlements to more productive land closer to the current main river channel (2008: 5).

³⁹ Graham has demonstrated that the Nile's main channel may have been braided at times of high sediment capacity. Small islands could be formed during this time which might then have developed into larger more stable environments causing subsequent channel migration (Graham 2010: 125).

floodplains as suitable areas for avulsion to take place (2001: 159), and two examples from the Oryx Nome area along the Bahr Jusef may indicate this process.⁴⁰



Figure 4.32: A sharp meander in the course of the Bahr Jusef to the northwest of El-Minya as illustrated in the *Description de l'Égypte*.



Figure 4.33: The sharp meander has been cut off by the Bahr Jusuf, possibly through natural or manmade forces, but is still visible in the modern field boundaries. Some residual water remains in the paleochannel probably due to run off from the new canal that bisects the paleochannel. The settlement sprawling along the Bahr Jusef is beginning to expand into the southern paleochannel.

⁴⁰ Bunbury and Malouta have shown that, due to the relatively stable position of sites along the Bahr Jusuf, such as Oxyrhynchus, this channel has remained quite static and thus has meandered around a 'relatively consistent course' (2012: 120).



Figure 4.34: A wide bend in the Bahr Jusuf circling around some ancient mudbrick remains named Kom el-Ahmar (red mound).



Figure 4.35: The bend has been straightened out, probably through human interference, although the expanding settlement of Beni Khiyar still preserves the shape of the old watercourse, as do the surrounding field boundaries. The place of the ancient remains appears to have been destroyed by cultivation, other than a small outlying patch of higher ground to the west of the straightened water channel (circled).

In Schumm's analysis of rivers and their impact on ancient civilisations he did not feel that avulsion played a significant role in Nile Valley ecology compared to that of the Euphrates and Tigris or Indus Valleys. Instead Schumm proposed that 'changes

along the River Nile would be local and of short duration' (2005: 196).⁴¹ The evidence from the Oryx Nome area indicates that even local changes could have had an impact on the function of settlements within the Nile Valley. Slight changes in meanders of the Bahr Jusuf over recent centuries have left villages land-locked and in ancient times this could have affected their local industries and dependency on hinterland resources. If these changes were paralleled by avulsions in the main Nile branch across the wide floodplain then entire areas of the cultivation and their settlements would have been impacted. Just as Bunbury and Jeffreys (2011) have proposed multiple branches across the Memphite floodplain, if this were also the case in the Oryx Nome then the natural environment would have been much more dynamic around the inundation period. These changes would have contributed to the eventual waxing and waning of settlements within the nome, in effect leaving some 'high and dry' within the floodplain (Lutley and Bunbury 2008: 5).

4.3 Summary

In 2008 David Jeffreys discussing the 'archaeological implications of a moving Nile', concluded that if the river's behaviour engaged more field archaeologists then a national map of the past environment could be possible (2008: 6-7). Since then a number of formative studies have contributed to this vision, most notably by Jeffreys in the region of Memphis (Bunbury and Jeffreys 2011); Graham and the Theban Harbours and Waterscapes Survey in the areas of Karnak, Luxor Temple and the Westbank (Bunbury et al. 2008, Graham 2010, Graham et al. 2012); and, nearer to this thesis' area of focus, Parcak's remote sensing analysis around Amarna (Parcak 2005; 2006; 2008); and Bunbury and Malouta's work at Hermopolis and Antinoopolis

⁴¹ Had Schumm considered the impact in the Nile Delta region or wider floodplain areas it is likely that his conclusions may have been somewhat different.

(2012). All of these studies have demonstrated that a greater understanding of the Nile and its morphological changes over time is crucial to the development of future fieldwork in the Nile Valley. To these studies can now be added this chapter which synthesises the impact of natural changes on the Nile Valley within a particular locality. The processes discussed in this chapter were in no way exhaustive, but exhibit the main elements that should be considered when approaching regional perspectives of climatic and environmental change.

In reconstructing the Oryx Nome during the Middle Kingdom it has been necessary to consider the very earliest formation of the unique environment of the Nile Valley. From the tectonic processes that led to the development of rich nummulitic limestone in the steep eastern desert cliffs – themselves relics of an ancient canyon and later gulf of the Mediterranean. Even today, these limestones constitute exploitable resources in the region, providing building material nationwide while the steep cliffs provided perfect areas for constructing rock-cut cemeteries, during the Old and Middle Kingdoms in particular.

The wide open floodplain beneath these cliffs allowed for a productive and prosperous province to develop during the very earliest phases of Pharaonic history (see section 3.2). A land criss-crossed with intermingling minor channels running between the main Nile branch and the Bahr Jusef in the west allowing for riverine transportation and locally managed basin irrigation projects. Some areas within this environment would have been low-lying and perhaps marshy year-round providing areas of concentrated flora and fauna (Burn 2014). These areas allowed for fishing or fowling activities and elite hunting to take place, see chapter 6 for further discussion of these experiences. This dynamism was further complicated by a steadily migrating main Nile branch which fluctuated between extreme western and eastern positions, mirrored by similar movements further south around Hermopolis (Bunbury and

Malouta 2012). Human interference, canalisation and damming projects along the Nile during more recent centuries have reduced some of this dynamism and changed the ecological relationship between inhabitants and nature within this environment, though change is still apparent in satellite images. Islands that were once surrounded by the Nile are now incorporated into the floodplain in a process that certainly occurred during ancient times. These locations provided suitable areas for habitation, and with assistance from vegetation and rubbish dumping on the river edge would have facilitated urban expansion over time (Graham 2010). Similarly, stabilised natural levees along the river bank supplied higher ground for settlements to develop resulting in elongated urban areas oriented according to the direction of the water channel – often north-south on the main branch. Tell sites, often located beneath modern settlements, can therefore inform researchers of their original setting based on their orientation.

The dependency on the annual regime of the Nile, and therefore natural processes occurring further south, such as precipitation and more global climate factors, meant that the Oryx Nome was a seasonally productive province. In other words, seasons of sowing and harvest were primarily agriculturally productive, whilst the inundation freed up local labour for monumental projects, quarrying expeditions or requirements of the central state. The local management of manpower is clear from the autobiographical inscription of Amenemhat (BH 2), in which he claims responsibility for making the area productive during periods of high Niles. This local administrative obligation, which likely contributed to the prosperity of the region during the First Intermediate Period, was brought to a gradual end by Senwosret III and thus periods of substantial floods, such as those recorded at Semna and Kumma for the reign of Amenemhat III, became more difficult to manage. This study considers that this contributed to the eventual collapse of the Middle Kingdom,

placing control of local resources in the hands of newly established religious institutions and concentrating infrastructure around urban areas. This can be seen in the later prominence of Neferusi during the Second Intermediate Period campaign of Kamose during the 17th Dynasty (see section 5.3).

Settlement within the region, as well as the location of major cemeteries, appears to have been concentrated in the east. This, in part, may be due to substantial Aeolian sand encroachment in the west beyond the Bahr Jusuf, which itself does not seem to have been a major supporter of urbanism in this area, perhaps due to regular avulsion of its meanders. The main Nile branch likely flowed through the central area of the floodplain focusing urbanism in the central stretch throughout history as evidenced by lines of ancient tells beneath modern habitation revealing the outlines of previous Nile levees.

It is therefore clear that substantial changes in the Nile Valley during the Pharaonic Period would have impacted on the local inhabitants greatly, either through the annual inundation or by more uncommon occurrences such as avulsion, high/low floods, or island formation. Changes in fluvial processes would have had further impact on the flora and fauna of the region, which in turn would have also affected the lives of the valley dwellers. The ecological equilibrium offered by the Nile was responsible for the stable environment required for settlement in the valley and the emergence of the ancient Egyptian civilisation, but could also threaten its existence and delicate way of life. It is important to note that while Egyptian civilisation was undoubtedly affected by the natural environment it inhabited, it is just one possible result of the ecological relationship that developed – this maintains the environmental possibilism discussed in the methodology. With this new reconstruction of the Oryx Nome's natural environment, and the processes occurring within it during the Middle

Kingdom, it is now possible to reconsider the ways in which urbanism contributed toward the formation of a cultural landscape.

CHAPTER 5

THE ORYX NOME AS AN URBAN LANDSCAPE

As outlined in chapter 2, landscapes are composed of two distinct yet interrelated systems – one natural and the other cultural. Previous discussion has demonstrated the natural processes and forms that have occurred within the Oryx Nome, while this chapter introduces urbanism as a cultural component of the methodology proposed in section 2.4.

Urbanism is a process that can leave a lasting archaeological record. However, surface settlement remains are relatively scarce within the chosen area of study – almost exclusively limited to the mud-brick remains at Zawiet Sultan (see section 3.4.1 above).¹ For this reason equating settlements mentioned in ancient texts to those tell sites still visible within the floodplain of the region can be difficult, and often relies on the interpretation of available sources. This chapter will outline texts relating to the location of just four settlements mentioned in the upper necropolis tombs of Beni Hasan during the Middle Kingdom. The four settlements chosen – Hebenu, Herwer, Neferusi, and Menat-Khufu – have been chosen due to their prominence within the tombs, and the significance assigned to them in scholarship, which will be outlined for each settlement below. Each of these settlements has been accorded specific roles within the regional administration or even named ‘capital’ of the nome in some works (see for example Hebenu in Brugsch 1879: 111), and these titles will also be explored below. The texts relating to each settlement are not only useful for assisting in locating settlements within the floodplain, but also for reconstructing the function of each locality during the Middle Kingdom. The locations proposed at the

¹ Kessler notes a number of tells visible in the landscape around the Governorate of El-Minya including El-Birba, Kom el-Mahras el-Bahari, Rida, and Beni Ahmed. However, most of these are completely overbuilt and only visible in settlement patterns, or in the reuse of older architectural features (1981: 70-73).


end of this chapter will be based on knowledge of the texts themselves alongside geoarchaeological and archaeological considerations. Any final conclusion can only be reached through ground-truthing and excavation which is difficult in such heavily built-up areas (see discussion in section 1.1).

The study of urbanism in Egyptology is fraught with terminology that can alter the perception of a settlement and its status. This confusion stems from ancient Egyptian language and the multitude of words used to refer to urban centres, and specifically the lack of any specific definitions preserved for each one. A brief introduction to previous studies of ancient Egyptian urbanism and the terminology used will help to contextualise this study within the broader thesis.

Although somewhat outdated by archaeological work since 1979, Bietak's overviews of 'Urban archaeology and the "town problem" in Ancient Egypt' still provides a useful introduction to the issues that must be overcome when considering urbanism in the Nile Valley (Bietak 1979). Through a series of case studies Bietak revealed some of the qualities of towns in Ancient Egypt, such as their dense population numbers, compact layout, and industrial and administrative concentration (1979: 103).² Bietak also considered the differing ways in which towns developed in Egypt over time – some through strict planning, and others through 'organic' growth over generations (1979: 104). Those more 'organically' developed towns may have evidence of some planning, though may originally have begun as smaller farming communities. Redford, however, stresses the importance of agricultural land to urban centres as an immediate and interdependent hinterland for food supply. He suggests that some centres were established to organise the agricultural resources and oversee irrigation, to provide a court of law, and to promote the interests of the state (1997:


² A similar list of qualities of 'citiness' is also provided by Snape (2014: 22). The use of modern terminology and criteria for such elements is provided by Baines (2013: 159).

213). More recently Snape has also considered the impact of the natural environment on the permanence of these settlements and concluded that ‘the vagaries of Nile flooding meant a certain flexibility was required on the part of the population – and the rebuilding of wholly or partly flooded houses was probably a regular occurrence’ (2014: 15). This somewhat transient (not quite nomadic) form of urbanism meant that Egyptian settlements had to be adaptable to the natural processes occurring around them, such as those outlined in chapter 4.³ This compromising yet ecologically stable relationship is reflected in the building materials used. Mud-brick, comprised from Nile silt, is essentially the same material that may have caused damage to the homes of the inhabitants and as such, any damage caused by flooding could easily be repaired using the recently deposited sediments (Emery 2011: 1). This readiness of available building material contributed to the adaptability of ancient Egyptians to compromise with their environment and in many ways to maintain their ecological relationship.

The Egyptians had several ways of referring to their settlements. The most well-known is *niw.t*, often simply translated as ‘village’, ‘city’ or ‘town’ (WB II: 210; Gardiner 1957: 498 [O49]; Faulkner 1962: 125). It is usually represented as , which Gardiner described as reflecting a town plan with cross-roads [O49]. Redford has argued that the sign, in its earliest phase, actually represents a cluster of round-topped or conical huts (1997: 211) although a consensus has not been reached.⁴ It would appear unlikely that this sign in its earliest phase would represent cross-roads, as no evidence of roads (as a planned urban feature) has been found in the earliest settlements of Egypt (Van Lepp 1997: 100). This sign, as a determinative, does not

³ Descola has termed this transient model of urbanism as ‘transhumance’ (2013: 36).

⁴ Van Lepp concluded that the sign represents a water basin with crossed canals based on an analysis of colours used in the painting of the sign (1997: 100).

feature in foreign toponyms and so may represent something more meaningful than simply ‘town’, perhaps indicating some form of cultural identity to an Egyptian settlement or construction (Goelet 1999: 76). Another term, *dmi.t* , is also frequently translated as ‘town’, but possibly more accurately refers to a quay or harbour (WB V: 456; Faulkner 1962: 313; Redford 1997; Goelet 1999). This landing place along the river may have served a larger settlement, possibly set back slightly from the riverbank, and provided a suitable market and trading area as well as a meeting place (Goelet 1999: 80). See section 1.2 for a discussion of this topic.

A number of studies have focused on toponyms recorded within the Egyptian Nile Valley, notably by: Brugsch (1879), Gauthier (1925-31), Gardiner (1947), Zibelius (Old Kingdom, 1978), Baines and Malek (2000), Gomaà (First Intermediate Period, 1980; Middle Kingdom, 1986), and Snape (2014). These studies have utilised a number of ancient sources to construct their lists, most notably: Medinet Habu (Daressy 1895), Onomasticon of Amenemope (Gardiner 1947), Wilbour Papyrus (Gardiner 1948), Papyrus Harris (Grandet 1994), and the White Chapel at Karnak (Lacau and Chevrier 1956). Gardiner’s analysis of the Onomasticon of Amenemope provides an example of where confusion in terminology can cloud understanding of how the ancient Egyptians considered their surroundings and categorised the world around them. While Gardiner considered the onomasticon to contain a list of ‘the towns of Egypt’, what it actually lists is a series of *dmi.t*, from south to north (Gardiner 1947: 1 [313]). If this list is taken to only include quays and ports located along the riverbank then the inclusion of sites like Gebel Silsila (*Hny* can be found at number 317 in the onomasticon, Gardiner 1947: 6), a site with no known settlement, can be explained. The equation of the sites listed in the Onomsticon with quays and meeting points along the Nile means that the nature of the document should be

reanalysed. As Goelet states, ‘the Egyptians might have viewed the world entirely differently from the way we do’. The way that the Egyptians categorized their world through art was also discussed by Weeks who warned against viewing evidence through the distortion of a modernised, western lens (1979: 61).⁵ Weeks goes so far as to state that ‘a culture is really the sum total of its folk classifications, the ways in which it classifies and categorizes its material and social universe.’ (1979: 61). While a reanalysis of how the Egyptians catalogued their surroundings is outside the scope of this thesis, further research would provide greater confidence in understanding how the physical world was perceived by the inhabitants of the Nile Valley.⁶

The catalogue of texts below is by no means exhaustive for the four settlements chosen for study. However, as this thesis predominantly focuses on the Middle Kingdom of Egyptian history, texts from other periods have only been used if they provide greater information about the possible location of the settlement or its function within the area. Each text is provided with its provenance, date and bibliography. Further notes regarding its significance to this study are provided for most texts following a transcription and translation.

⁵ The work of Weeks in relation to Egyptian art is discussed again in chapter 6.

⁶ This kind of approach would be greatly enhanced by a phenomenological study taking in the sensory experience of individuals within the Nile Valley, see section 2.3.

5.1 Hebenu (*Hbnuw*)

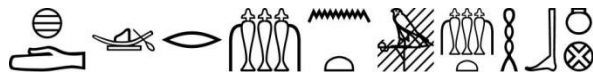
5.1.1 Text catalogue

Source 5.1.a: Inscription from the tomb of Khunes

Origin: Zawiet Sultan, tomb 2

Date: 6th Dynasty

Publication: LD I: 58-59; LD II: 105-109; Champollion 1889: 448; PM IV: 134-135; Piacentini 1993: 49-50 [II.1.2].


$$\underline{hd}(i).t \ r \ \underline{hn}.t \ \underline{Hr} \ \underline{hn}.t(y) \ \underline{Hbnw}$$

Travelling northwards (downstream) to the front of Horus foremost of Hebenu

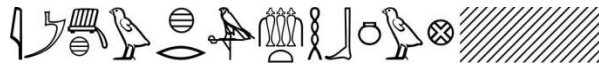
Notes: This text is inscribed near to a similar text (source 5.3.a) which describes the deceased sailing south to participate in a festival of Hathor Lady of Neferusi. This may indicate that Khunes actually resided in a town located between the two cult sanctuaries and not within either Hebenu or Neferusi themselves. Alternatively, the text may also indicate that Hebenu's location is to be sought to the north of the tombs at Zawiet Sultan, if the implication is that tomb 2 is the starting point of Khunes' journeys.

Source 5.1.b: Inscription from the tomb of Shepseskhaui

Origin: Zawiet Sultan, tomb 9

Date: 6th Dynasty

Publication: LD I: 63; LD II: 110; PM IV: 137; Piacentini 1993: 58 [II.1.9].



im3hw hr Hr hn.t(y) Hbnw [...]

Honoured before Horus foremost of Hebenu [...]

Source 5.1.c: Inscription from the tomb of Ma

Origin: Zawiet Sultan, tomb 11

Date: 6th Dynasty

Publication: LD I: 64; LD II: 110; PM IV: 135; Piacentini 1993: 59 [II.1.11].



Hr hn.t(y) Hbnw



Horus foremost of Hebenu



Source 5.1.d: Inscriptions from the tomb of Ni-ankh-Pepi

Origin: Zawiet Sultan, tomb 14

Date: 6th Dynasty

Publication: LD I: 65-67; LD II: 111; PM IV: 137-138; Varille 1938: 30, pl. 17;


Piacentini 1993: 61-63 [II.1.14].



htp-di-nsw Inpw tp'-dw.f imy-wt⁷ prt-hrw n.f m Hbnw m im3hw hr Wsir

⁷ Varille records *hr* here instead of *tp*, although the title is used frequently for Anubis within the tombs so must reflect an epigraphic error.

An offering which the king gives to Anubis upon his mountain, he in the mummy bindings, (so that he may give) an invocation offering to him in Hebenu as one venerated before Osiris.


ḥtp-dī-nsw in Wsir nb Ddw krs.t.f nfr(.t) m Ḥbnw m im3ḥw ḥr Hr ḥn.t(y) Ḥbnw smr
w^c.ty Hnm-ḥtp

An offering which the king gives to Osiris Lord of Djedu, (so that he may give) his beautiful burial in Hebenu as one venerated before Horus foremost of Hebenu, the Sole Friend, Khnumhotep

Notes: In his tomb Ni-ankh-Pepi is also named Hepy and Khnumhotep, a name later associated with tombs from the 12th Dynasty at Beni Hasan (see chapter 6). In this instance his tomb is explicitly located in Hebenu, or rather its principal cemetery.


Source 5.1.e: Inscription from the false door of Paakhut

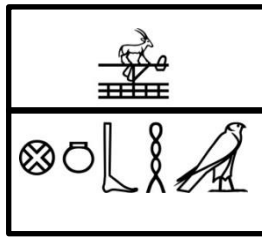
Origin: Zawiet Sultan, tomb 19

Date: 6th Dynasty

Publication: LD I: 68-69; LD II: 111; PM IV: 138-139; Piacentini 1993: 66-67 [II.1.19].



⁸ The *niw.t* determinative used here may have been used mistakenly instead of the more usual  (Gardiner [Aa2]).



M3-ḥd Hr Ḥbnw

The Oryx Nome - Horus of Hebenu

Notes: The White Chapel lists all the nomes of Egypt with their chief deities and geographic location; in this case Horus of Hebenu (see section 3.3.1).

Source 5.1.h: Inscription from the tomb of Amenemhat

Origin: Beni Hasan, [BH 2]

Date: 12th Dynasty, reign of Senwosret I

Publication: BH I: 21, pl. 7.

Exterior inscription, door lintel:



im3ḥw ḥr Hr ḥn.t(y) Ḥbnw iry-p^t ḥ3ty-^c imy-ib ity ds.f imy-r wp.wt ḥtpw-ntrw, Imny, m3^c-ḥrw

Honoured one before Horus foremost of Hebenu, the hereditary prince, high official, favourite of the sovereign himself, overseer of the inventories of divine offerings, Ameni, justified.

Source 5.1.i: Reliefs in the antechamber of the pyramid temple of Senwosret III

Origin: Dahshur

Date: 12th Dynasty, reign of Senwosret III

Publication: Oppenheim 2008: 270, 368-369.



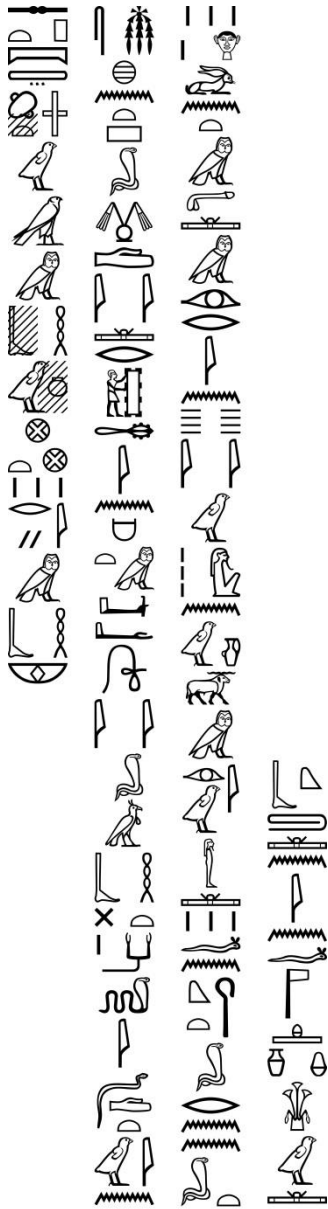
Figure 5.1: Fragment of limestone with the name of Hebenu preserved from the west wall of the antechamber of the pyramid temple of Senwosret III at Dahshur (from Oppenheim, A. 2008. *Aspects of the pyramid temple of Senwosret III at Dahshur: The pharaoh and deities*. PhD thesis, New York University: pl. 182).

Source 5.1.j: Inscription on the façade of the Speos Artemidos [lines 30-33]

Origin: Speos Artemidos

Date: 18th Dynasty, reign of Hatshepsut

Publication: Gardiner 1946; Allen 2002; Goedicke 2004.



*k3b.n.i n.f htp.w-ntr h3w hr wn.t m-b3h m irr.i [n htp] n
Hmnyw n Hnm m ir.w.f n Hkt Rnnt Mshnt dmdy r kd ht.i
Nhmt-^c.wy Nhbt-k^c Idet.t iw.n.s pt t3 imy-wt Hr m Hbnw
ni.wt iry m hb*

I doubled for him the divine offerings in excess of what
existed before – in my doing (of this) for the Eight: to
Khnum in his forms, to Hekat, Renenet and Meskhenet,
united to fashion my body, Nehmet-away, Nehbet-ka,
Idjedet, to whom belongs heaven and earth, He (Anubis) in
the mummy bindings, and Horus¹⁰ in Hebenu. The towns¹¹
thereof being in festival.

Notes: This text from the Speos Artemidos documents Hatshepsut’s activities in Middle Egypt and the restoration of temples in this region during her reign (Allen 2002: 15). The primary elements of the text relate to her work in Cusae and Hermopolis, but her work in constructing the Speos Artemidos itself is thought to be the northernmost of her building projects (Bommas 2000: 299-301). Goedicke

¹⁰ Gardiner’s publication of Davies’ copy of the Speos Artemidos inscription appears to show an aleph-bird (Gardiner [G1]) here, though it is possible that this could actually be a spelling of Horus, Lord of Hebenu. I am indebted to Angela McDonald for her suggestion of this reading.

¹¹ The towns referred to here are those mentioned earlier in the text where Hatshepsut has endowed their temples following the expulsion of the Hyksos.

equated Hebenu in this text with a similarly named town in the Eastern Delta causing him to use Hebenu in the next sections of the narrative referring to some form of disturbance caused by military action on the eastern borders (2004: 72-73). However, the proximity of Hebenu (in UE 16) to the Speos Artemidos and the attention given to Hermopolis and Cusae within the text implies that Hebenu of the Oryx Nome is intended.¹² The translation offered here closely resembles that offered by Gardiner and Allen. Their slightly differing translations confirm that an Ogdoad (a collection of eight deities) resided in Hebenu, associated specifically with scenes of royal birth (Gardiner 1946: 53-54; Allen 2002: 11-12). It is therefore possible that Hebenu shared a role in myths associated with the royal birth; a role that was extolled on the façade of the Speos Artemidos during Hatshepsut's restoration of cults, festivals, and temples in Middle Egypt.

The inscription also mentions Hatshepsut's efforts to repair destruction in Middle Egypt caused by Hyksos control during the Second Intermediate Period (Allen 2002: 1). However, it is noteworthy that Neferusi, or its Hathor cult, does not appear in the inscription despite it being the location of a siege during the reign of Kamose (Smith, H. and Smith, A. 1976: 60, 70-71; source 5.3.c). This may indicate that the temple, or part of the town, had been destroyed during this siege and as such was not able to be endowed with substantial investment and construction. Likewise, its resistance to Kamose's army may have given little incentive for the rulers of the 18th Dynasty to endow Neferusi's temples with any gifts or offerings.

¹² A thorough critique of Goedicke's interpretation of the text and his equation with the eruption of Thera and the Biblical Exodus is provided by Allen (2002: 1-2). Further discussion can also be found in Shanks 1981; Oren 1981; Shanks 1982; and Goedicke 1988.

Source 5.1.k: Scarab of Amenhotep III, BM EA26990

Origin: Unknown

Date: New Kingdom, reign of Amenhotep III

Publication: Hall 1913: 182 [1818]; Varille 1938: 30-31.



Nb-M3^c.t-R^c mry.t Hr nb Hbnw

Neb-Maat-Re, beloved of Horus, Lord of Hebenu

Notes: This scarab was acquired by the British Museum in 1896 and although its provenance is unknown a lintel of Amenhotep III was discovered at Zawiet Sultan bearing the epithet ‘Beloved of Horus’ (Varille 1938: 30-31; Kessler 1981: 216-218, see 5.1.2e and 5.1.2f), which may entail that this scarab was found in the same area. Blocks with the cartouches of Ramesses III have also been found at Zawiet Sultan (Weill and Jouguet 1934-37: 89; Kessler 1981: 216-219).

Source 5.1.l: Inscriptions from the tomb of Nefer-sekheru

Origin: Zawiet Sultan

Date: New Kingdom (late 18th – early 19th Dynasty)

Publication: Champollion 1889: 439-442; PM IV: 139; Osing 1992: 43-48, 72-79, pl. 35, 39, 44, 47.

Shrine – Horus niche (Osing 1992: pl. 44)



Hr nb Hbnw ntr ʿ3 hr-ib M3-hd

Horus, Lord of Hebenu, great god, who dwells in the Oryx Nome

Notes: On the west wall of the tomb chapel, Horus foremost of Hebenu is mentioned as part of an offering formula including the deities, Osiris, Lord of Busiris and Abydos, Sokar Lord of Shetyt, and Anubis Lord of the God's Hall (Osing 1992: pl. 35). The role of Horus within this group of funerary deities is not clear, although it may reflect the geographical setting of Nefer-sekheru's earthly life and dedication to his local deity.

Three niches are carved into the east wall of the tomb shrine, each one dedicated to a different deity; the northernmost is dedicated to Horus, Lord of Hebenu, the central to Osiris, and the southern niche to Anubis (Osing 1992: 72-79; pl. 44). This is the only New Kingdom tomb known from Zawiet Sultan, despite quarrying activities known from this period (Klemm and Klemm 2008: 73-75).

Source 5.1.m: Onomasticon of Amenemope (Papyrus Golénischeff V, and others)

Origin: El-Hibeh¹³

Date: 20th Dynasty

Publication: Gardiner 1947: 90-91 [382], pl. 11.

¹³ Gardiner used a number of sources to complete the Onomasticon of Amenemope. The largest fragment was preserved on Papyrus Golénischeff V. He also used papyrus Hood (BM10202), BM10379, fragments from the Ramesseum Papyri, Cairo ostracon J67100, BM21635, Papyrus Boulaq IV, and a potsherd from the Ramesseum (Gardiner 1947: 26).



Hebenu

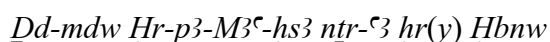
Notes: Hebenu follows all the *dmi* of the Oryx Nome listed in the Onomasticon in the following list; Neferusi, Her-wer, Per-Wedjay, Per-nebet-n-inet and Hebenu (Gardiner 1947: 90-91). As the list is arranged from south to north and west to east it is possible therefore to assume that Hebenu is located in the north of the region and towards the east of the other settlements in the list. Likewise, Hebenu during this period, the 20th Dynasty, must have been located on the riverbank of the Nile or at least with a quay attached to the administrative centre (see above).

Source 5.1.n: Bronze statuette of Horus with lion head, Walters Art Museum: 54.1013

Origin: Memphis

Date: Late Period

Publication: Steindorff 1946: 135-136 [575], pl. 89, 119; Meulenaere 1969: 21; Leitz 2002: 258.



Words spoken (by) Horus-Pa-Mai-Hesa, the great god who is in Hebenu

Notes: This text is inscribed around the base of a bronze statuette of a lion-headed deity wearing the double crown of Egypt standing on a bound oryx. Although no

provenance is known for this example, a similar statuette was discovered at Zawiet Sultan and is now in the Cairo Museum (JE 60359). Other similar statuettes include Walters Art Museum 54.2069 showing a falcon headed Horus trampling an antelope, and a statuette of Hor-merty (Horus of the two eyes) with falcon head, trampling antelope and holding harpoons (Cairo JE 38.618; Daressy 1906: 161, pl. 34). In these instances it appears that Horus is assuming his role in defeating the chaotic Sethian enemies of the sun-god that feature in the later texts inscribed at Edfu and Dendera (Edfu: Naville 1870: 18-19, pl. 14; Fairman 1935; Blackman and Fairman 1942; Blackman and Fairman 1943: 8, 30 note. 17; Alliot 1944: 720-723; Montet 1961: 158-159; Chassinat and Rochemonteix 1984: 341-342. Dendera: Mariette 1873: pl. 73) and are alluded to in the later spelling of the Oryx Nome standard as an oryx with

a falcon on its back:  ,  (Montet 1961: 157-159).

5.1.2 Previous attempts to locate Hebenu

Based on the texts listed above scholars have attempted to locate Hebenu in the ancient Egyptian landscape. Here follows a brief summary of each theory proposed and an analysis of its plausibility.

1879, Brugsch

As early as 1879 Brugsch concluded that the concentration of texts relating to Hebenu in the tombs of Zawiet Sultan (sources 5.1.a-e) must allude to the fact that ancient Hebenu should be sought within this locality (1879: 1252). Without investigating the urban remains situated around the necropolis, Brugsch equated Hebenu with Zawiet Sultan itself. Throughout the *Dictionnaire géographique* Brugsch frequently refers to Hebenu as being ‘*le chef lieu*’, presumably through its appearance on the White

Chapel of Senwosret I at Karnak and later myths of Horus (Brugsch 1879: 153, 252, 396, 848 and 1041). However, the texts presented above indicate that this status cannot have been the case during the early Middle Kingdom due to the lack of mentions in the 11th and 12th Dynasty tombs at Beni Hasan. Consideration of Hebenu's status during this period is discussed below (5.1.3).

Brugsch also considered the name Hebenu as an ancient form of the Latin toponym Ibiu, a name recorded in the *Itinéraire d'Antonin* (Brugsch 1879: 1252). By locating Hebenu in the vicinity of Zawiet Sultan, Brugsch assumed that the settlement and its necropolis should be located alongside one another.

1891, Maspero

In 1891 Maspero also investigated Zawiet Sultan, specifically the area of urban remains beneath the tomb terrace (see 3.4.1 for an overview of the archaeological site of Zawiet Sultan). From the textual evidence Maspero felt that Hebenu should have been the location for a large stone temple dedicated to the god Horus, however on inspection he found no such remains at Zawiet Sultan (1891: 506-507). For this reason Maspero referred to observations made by Jomard during the Napoleonic exploration of Egypt's monuments, in which it was recorded that the dead of El-Minya were still buried at Zawiet Sultan, close to the Old Kingdom tombs (Jomard 1818: 39). Based on these observations Maspero equated Hebenu with the modern city of El-Minya, and deduced that sprawling urbanism here had covered the ancient town – including the remains of its stone temple dedicated to Horus (1891: 507-508). Unfortunately, no substantial archaeological survey or excavation has taken place in or around El-Minya, and due to its rapid growth over the last century it could be

concluded that any remains would be largely destroyed.¹⁴ It is therefore difficult to assess the plausibility of Maspero's theory, although at only 10km distance from the tombs of Zawiet Sultan it could be possible that Hebenu was once located in the area of the modern west bank of the Nile.

1893, Newberry

When Newberry recorded the upper necropolis tombs of Beni Hasan from 1890 to 1893 he recognized that a number of regional settlements were mentioned within the tombs. As part of his reconstruction for the area around Beni Hasan Newberry located Hebenu in the vicinity of Zawiet Sultan, specifically the small village of Sawadeh 5.5km to the north of the extant archaeological remains, on the east bank of the Nile (BH II: 19-20). Although no ancient remains can be seen at Sawadeh today, its high position on the current Nile levee and its organic development pattern along the banks of the river make it a possible locality for ancient settlement remains to be discovered. Newberry also drew attention to some mounds close to Zawiet Sultan on the desert edge that form part of the large sprawl of archaeological remains at Zawiet Sultan stretching along the east bank of the Nile (BH II: 19-20).

1916, Daressy

Like Brugsch before him, Daressy also equated Hebenu with the toponym Ibiu in the *Itinéraire d'Antonin* and described Hebenu as 'le théâtre d'un des grands combats entre Horus sous forme d'un faucon et Set métamorphosé en gazelle' due to its role in the myths inscribed at Edfu (1916: 14). Daressy also equated Hebenu with the settlement of Per-Wedjay, a locality named in the Onomasticon of Amenemope

¹⁴ Kessler noted some reuse of late Roman architectural remains in the Fatimid Mosque of the city (1981: 214).

(Gardiner 1947: 88-92) and in Papyrus Harris (Grandet 1994: I, 311; II 201 [828], pl. 62). Per-Wedjay is listed as a settlement that received 65 individuals during the reign of Ramesses III for work in the temple of Thoth established in the town (Grandet 1994: 311).¹⁵ Daressy subsequently situated Hebenu/Per-Wedjay at El-Anbage, to the south of Abu Qurqas, a site now occupied by a sugar factory (Jomard 1818: 14, n. 1). In 1818 Jomard reported that the site included three mounds of mud-brick remains stretching for over 500m and also had the toponym Medinet Daoud, Town of David (Jomard 1818: 32-33).¹⁶ While El-Anbage is a suitable tell site for an ancient settlement, it is too far south in the region to be equated with Hebenu, being roughly 15km south of the tombs of Zawiet Sultan. Likewise, the Onomasticon of Amenemope is arranged from south to north, and mentions both Per-Wedjay and Hebenu thus making it unlikely that the two are synonymous with one another (see source 5.1.n above).¹⁷ Daressy stated that he had originally located Hebenu at Zawiet Sultan; this, as with other explanations given here, is a much more plausible option.¹⁸ This earlier location was proposed by Daressy when translating a hymn for the god Khnum from the temple of Esna (Daressy 1905: 88, 90). The hymn mentions both Hebenu and Her-wer (see section 5.3 below) of the Oryx Nome and may imply that, like sources 5.1.i and 5.1.j above, the gods of the nome played roles within cults of state religion, as well as at a local level.

¹⁵ Papyrus Harris records: *rmt rdi.n.fr pr Dḥwty n P3-wdy 65*

¹⁶ Maspero chose to equate the tell site preserved at El-Anbage with Menat-Khufu due to its more relative proximity to Beni Hasan and the tombs of the officials of that town, see section 5.4 (Maspero 1891: 507).

¹⁷ Kessler located Per-Wedjay at the tell mound visible in the settlement pattern of Tahnasha in the central floodplain (1981: 200-208, 334).

¹⁸ Daressy stated that he proposed an equation between Hebenu and Kom el-Ahmar by Zawiet Sultan in a previous article published in *Rec. de trav.* 27 (1905), p. 125. This author has not found it possible to locate this previous proposition, although Daressy does mention it in 'L'Égypte céleste' *BIFAO* (1916), p. 14, n.1.

1934-37, Weill and Jouguet

Raymond Weill began excavations at the site of Zawiet Sultan in the early 20th century and uncovered the remains of a large stone platform that immediately threw doubt on Maspero's assumption that no temple existed at the site. As early as 1912 Weill had published evidence of a ramp discovered in the settlement remains that he believed 'd'ont la ligne conduit forcément à quelque temple' (1912: 490; see section 3.4.1). Over successive excavations and research linking Horus, his mythical battle with Seth, and his eventual assimilation with Apollo, Weill and Jouguet published their findings about the cult of Horus of Hebenu and its location at Zawiet Sultan (Weill and Jouguet 1934-37). Listing many pieces of evidence, such as stone blocks with the names of Amenhotep III and Ramesses III,¹⁹ as well as evidence of a temple of Horus-Apollo located on the previously mentioned ramp Weill and Jouguet proved beyond doubt that Zawiet Sultan was the location of a significant cult of Horus-Apollo during the Greco-Roman Period (1934-37: 89).²⁰ Although the temple is certainly dedicated to a late cult of Horus at Zawiet Sultan, this does not necessarily indicate its establishment on the same spot during the Old Kingdom some two millennia earlier, and thus cannot be used as substantial evidence to indicate that this temple marks the foundation spot for early Hebenu.

1938, Varille

Drawing attention to the limestone lintel discovered in Kom el-Ahmar at Zawiet Sultan bearing the name of 'Amenhotep III beloved of Horus', Varille drew greater

¹⁹ Weill and Jouguet also mention the discovery of stone falcons and sphinxes in the image of Horus-Apollo (1934-37: 98), although their current whereabouts are unknown it is possible that they were taken to the Louvre (Bussmann et al. 2016: 41).

²⁰ Although the temple and its stone features date to the Greco-Roman Period, it is possible that the ramp is earlier. Weill and Jouguet suggest that the ramp dates to the Ramesside Period due to the discovery of a block within it inscribed for Ramesses III, although it is possible that this stone block was reused in a later construction (1934-37: 90).

confidence in the equation of Hebenu with the settlement remains of Zawiet Sultan (1938: 31).²¹ Varille also drew attention to the great number of mentions of Hebenu within the tombs of Zawiet Sultan, including the tomb of Ni-ankh-Pepi which he was publishing at the time (sources 5.1.a-e) and the scarab [EA26990] in the British Museum (source 5.1.k).

1961, Montet

Montet also agreed with the conclusion that Hebenu was to be equated with the settlement remains visible at Zawiet Sultan based on the artefacts, and inscriptions discovered there (1961: 158). His conclusion utilised evidence from the Edfu temple inscriptions which also name the locality of Mehet, which Montet proposed could be a ‘château était peut-être situé dans le verger sacré qui s’appelait précisément *Hwt-Mht*’ (1961: 159). Although the locality of *Hwt-Mht* will not be addressed in this thesis, it is possible that this toponym relates to a part of Hebenu rather than another settlement.

1981, Kessler

Investigation by Kessler in 1981 republished the findings at Zawiet Sultan within a wider regional context and likewise deduced that these ruins are all that remain of the settlement of Hebenu. Reanalysing the site Kessler also noted some Ptolemaic blocks which he believed to have come from a temple context (1981: 214). Because of the overwhelming evidence, Kessler also dismissed Maspero’s argument regarding the lack of temple remains, particularly in the light of discoveries made by Weill during the early 20th century. However, Kessler provided no new evidence to suggest that an earlier temple existed at the top of the ramp. While it is possible, as Kessler

²¹ Correctly cited by Varille, the lintel was presented to the Cairo Museum in June 1912 and subsequently published by Lefebvre (1912: 93).

acknowledged, that Amenhotep III built or expanded a temple in Hebenu (using stone), it is still unclear where the temple was originally located. Kessler finally discounted that movements in the Nile bed had any impact on the development of Hebenu and believed that the town was originally founded on the flat desert beneath the modern Islamic cemetery to the north, and expanded to the south along the edge of the desert during the Greco-Roman Period, see figure 3.10 (1981: 223).²² This would account for the small number of in-situ pre-Ptolemaic remains at the site of Zawiet Sultan.²³

2005, Moeller

The excavations by the Inspectorate of Antiquities of Minya and the Universities of Cambridge and Sheffield did not question the proposal that Zawiet Sultan was the site of ancient Hebenu but proceeded to investigate for pre-Ptolemaic remains of the settlement's foundation. In the course of locating and recording the monuments discovered by Weill and Jouguet, the excavation found two further exposures of Old Kingdom mud-brick structures in the south of the tell, one of which exhibited evidence of flooding in the form of a thick layer of finely laminated silt beds (Moeller 2005a: 33). This kind of destruction may account for the lack of earlier remains found at the site. If these layers were datable to the Old or Middle Kingdom then it would be possible that a series of high Niles or substantial eastward migration of the river during this period had caused severe damage to more westerly structures – floods that are known for the reign of Amenemhat III for example (see section 4.2.3). Thus earlier remains could be sought beneath the Islamic cemetery to the north (as

²² Kessler's proposal that the town originally developed beneath the modern Islamic cemetery to the north of Zawiet Sultan is based on findings by Kaiser and Butzer, who found that pre-Late Period ceramics could be found in this northern area (Kaiser 1961: 35).

²³ Kessler also found that the Old Kingdom necropolis of Zawiet Sultan developed from the north to south and saw this as justification for his pattern of settlement expansion (1981: 212).

postulated by Kessler 1981: 223) or, as is suggested below, beneath tells on the west bank of the river. Moeller's preliminary account of the excavations proposed that the earliest foundation of Hebenu should be sought in the vicinity of the small step pyramid still visible within the ruins (see section 3.4.1), while the two Old Kingdom exposures south of this locality represent a 'considerable enlargement of the much smaller settlement' during the late 5th or 6th Dynasties, a date coinciding with the development of rock cut tombs in the cliffs above (2005a: 37). Moeller reported that no evidence of occupation of the site dates to the First Intermediate Period or Middle Kingdom, and therefore proposed that the site was abandoned during this period (Moeller 2005a: 37). In the final sentence of the report Moeller states, 'it is of course possible that shifts in the course of the Nile have removed evidence of later occupation' (2005a: 37). The impact of a changing environment is explored further below (5.1.3).

2016, Bussmann et al.

The current excavations at the site were begun in 2015 under the direction of Bussmann, Miniaci and El-Bakry on behalf of University College London. The aim of the mission is to 'establish a local context for the pyramid and to explore life at Hebenu/Zawyet Sultan over the past 5,000 years' (Bussmann et al. 2016: 38). Preliminary findings and research have already led to the equation of Zawiet Sultan with ancient Hebenu, though no Middle Kingdom settlement remains have yet been discovered. It is clear from initial surveys that the site once extended to the north of the current tell-mound beneath the modern cemetery (Bussmann, personal communication) and it is perhaps in this area that Old and Middle Kingdom Hebenu was located. Further work will better define this proposal, though the current security

situation in Middle Egypt prevents further work at the moment. This team are also researching the artefacts now preserved in the Louvre from the expedition led by Weill and Jouguet (Bussmann et al. 2016: 41). The purpose of this is to better understand the material culture of those inhabiting ancient Hebenu at different periods during its existence.

5.1.3 Summary

The significance of Hebenu

Hebenu has often been referred to as the ‘capital’ of the Oryx Nome (i.e. Brugsch 1879: 111; Newberry - BH II: 17; Daressy 1905; Varille 1938; Gardiner 1947; Moeller 2005a) due to its prevalence in inscriptions and royal monuments. However, from the texts registered above, this status is not justified for the entire Pharaonic era.

A small step pyramid dated to the 3rd/4th Dynasty at the site of Zawiet Sultan (see 3.4.1) indicates that this region attracted royal attention very early in the Pharaonic Period and the texts imply that Hebenu’s religious significance began from at least the 6th Dynasty (sources 5.1.a-e) and continued into later periods. The town’s connection to the god Horus and his mythical battle with Seth helped to promote Hebenu in inscriptions at the temples of Edfu and Dendera during the Greco-Roman Period. Despite Hebenu’s prominence in the 6th Dynasty tombs at Zawiet Sultan, it fades into relative obscurity during the early Middle Kingdom. Varille acknowledged that Hebenu was given a demoted position in the tombs of Beni Hasan (1938: 31), while Weill and Jouguet postulate that this was because towns in the south of the region grew in importance (1934-37: 84) with Menat-Khufu eventually replacing Hebenu as ‘capital’ of the Oryx Nome (1934-37: 87; see section 5.4). Moeller

concluded that Hebenu must have been abandoned by the 11th Dynasty as no archaeological remains could be dated to this period (2005a: 37).

Hebenu first reappears in texts during the reign of Amenemhat I in the tomb of Khnumhotep I at Beni Hasan [BH 14] (source 5.1.f). It then appears again shortly after, during the reign of Senwosret I, in the White Chapel inscriptions at Karnak (source 5.1.g) and tomb of Amenemhat at Beni Hasan [BH 2] (source 5.1.h). No pattern can be deduced from Hebenu's appearance in the two tombs at Beni Hasan as both Khnumhotep I and Amenemhat were nomarchs of the region, but the former also held the title of Overseer of the Eastern Desert and Official in Menat-Khufu – titles bestowed on him by the king himself (as recorded in the autobiography of Khnumhotep II [BH 3]; Lloyd 1992: 22; section 6.3). It is perhaps most noteworthy that Hebenu reappears during the early 12th Dynasty, a period following the fragmentation of Egypt during the First Intermediate Period and culminating in the recentralisation of the state under Senwosret III (Franke 1991: 52-53). It is therefore not unusual that a settlement and cult so intrinsically linked with royal ideology and kingship would not feature so heavily in tombs of the elite during the First Intermediate Period and early Middle Kingdom. This thesis considers that Hebenu was not abandoned, but simply played a less significant role in the daily lives of the elite residing in the Oryx Nome during the earlier phases of Beni Hasan's use as the regional cemetery. The lack of archaeological remains at the site is therefore more likely due to cases of preservation and that the earliest parts of ancient Hebenu may indeed lie beneath the modern Islamic cemetery to the north of Zawiet Sultan or beneath tells located on the west bank of the Nile (see below).

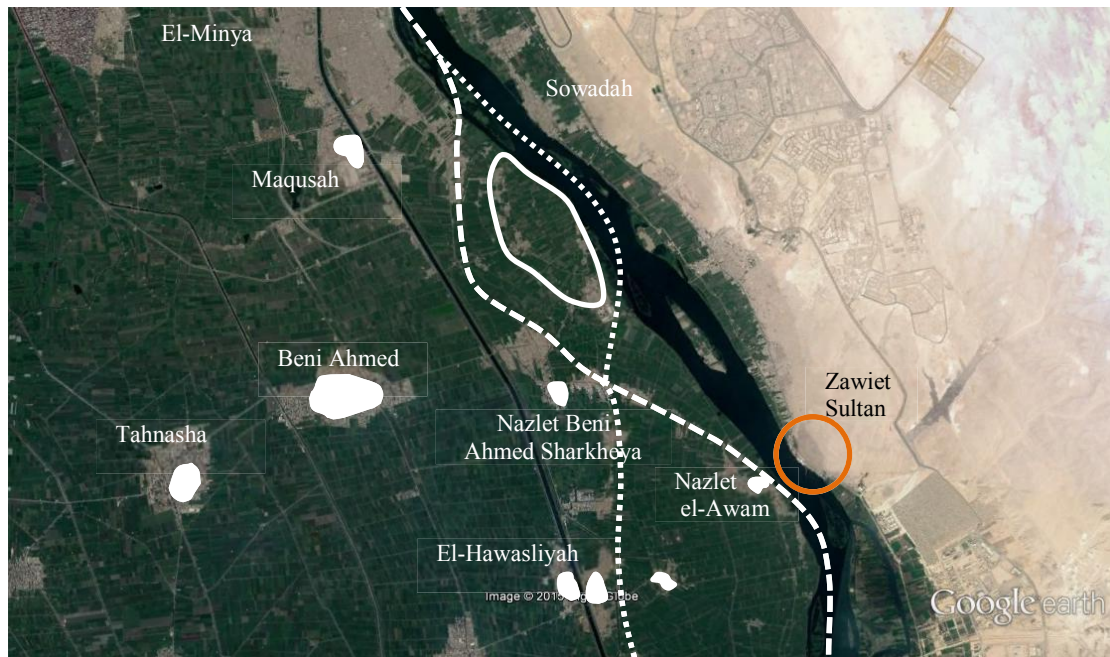


Figure 5.2: The region around Zawiet Sultan as indicated in Google Earth images from 2015. The filled white shapes indicate visible tell mounds in the modern landscape, while the unfilled shape indicates a now incorporated island on the west bank of the Nile. The two dashed lines indicate two possible reconstructions for Nile banks as indicated by irregular field boundaries, or from the maps in the *Description de l'Égypte* in the nineteenth century.

The location of Hebenu

From the evidence and theories listed above, two possible sites have been proposed for ancient Hebenu: Zawiet Sultan or El-Minya. The ancient texts themselves give much information to assist in locating the town in the modern surroundings of El-Minya. A tentative proximity to the tombs at Zawiet Sultan can be assumed because it would appear from the frequent mentions that Hebenu was either the residence of those buried in the necropolis, held some religious significance in their daily lives, and in the cases of 5.1.d-e was the principal cemetery of the town during the 6th Dynasty. Likewise, the lack of mentions in the Beni Hasan tombs may indicate a more substantial distance within the nome whereby the officials buried there felt little connection to the cult of Horus in Hebenu. The arrangement of Hebenu in the Onomasticon of Amenemope (source 5.1.m) likewise hints at a more northern

location within the region and therefore a locality in the area of El-Minya and Zawiet Sultan would be appropriate, thus discounting Daressy's theory to locate Hebenu at El-Anbage in the south of the region.

Date	Author	Proposed location
1879	Brugsch	Zawiet Sultan
1879	Dümichen	Zawiet Sultan
1891	Maspero	El-Minya
1893	Newberry	Sawadeh/Zawiet Sultan
1905	Daressy	Zawiet Sultan
1916	Daressy	El-Anbage
1934-37	Weill and Jouguet	Zawiet Sultan
1938	Varille	Zawiet Sultan
1961	Montet	Zawiet Sultan
1981	Kessler	Zawiet Sultan
2005	Moeller	Zawiet Sultan
2016	Bussmann et al.	Zawiet Sultan
Current proposal		West of Zawiet Sultan (Beni Ahmed)

Table 5.1: *A summary of previous attempts to locate Middle Kingdom Hebenu. In this thesis Zawiet Sultan is used to indicate the area of archaeological remains that have previously been referred to as Zawiet Sultan, Zawiet el-Amwat, Zawiet el-Meitin, and Kom el-Ahmar (see section 3.4.1).*

Currently no archaeological investigation has taken place in El-Minya itself although an older settlement mound is observable in satellite imagery beneath the city adjacent to the west bank of the river. However, numerous tell sites exist in the floodplain on the west bank (shown in figure 5.2) that could equally be connected with the tombs of Zawiet Sultan, including; Ridah, Beni Ahmed, Mansafis and Maqusah (an old settlement that is now a southern suburb of El-Minya). It is clear from previous studies that Zawiet Sultan is the most popular choice for locating ancient Hebenu.²⁴ The overwhelming amount of evidence indicates that the 6th Dynasty necropolis located there was certainly used by the elites of this town (sources 5.1.a-e). The substantial urban remains preserved at Zawiet Sultan beneath the tomb terrace – by

²⁴ Zawiet Sultan is also the preferred location for Hebenu by: Gauthier 1925-31: IV, 2; Zibelius 1978: 167-169; and Gomaà 1986: 310-311,

far the most settlement archaeology preserved in the region between El-Ashmunein in the south and Tihna el-Gebel in the north – may be equated with some degree of confidence with ancient Hebenu. However, these remains are situated on a short promontory extending into the River Nile, which is no more than 250m wide, resulting in sprawling remains 650m along the riverbank (Moeller 2005a; see section 3.4.1). If the current spread of settlement remains is reflective of the original location of Hebenu then the 3rd Dynasty pyramid, one of the largest of the seven pyramids, would have been constructed in the centre of the administrative area. This arrangement is not reflected at other sites with pyramids, such as Elephantine or Nubt, where they are usually located on the desert edges away from the domestic occupation and usually near to the local cemeteries (Arnold, Di. 2003: 229).

Pyramid	Steps	Base length (cubits)
Elephantine	3	35
South Edfu	3	35-36
El-Kula	3-4	35
Nubt (Ombos)	3?	35
Sinki	3	35
Zawiet Sultan	3-4	43
Seila	4	48

Table 5.2: *The seven small pyramids (step mastabas) across Upper and Middle Egypt, listed from south to north (adapted from Arnold, Di. 2003: 229).*

As Moeller postulated at the end of her article, ‘it is of course possible that shifts in the course of the Nile have removed evidence of later occupation’ (2005a: 38); it is likely that changes in the environment around Zawiet Sultan are responsible for the perplexing lack of pre-Greco-Roman domestic archaeology. Rather than ‘later occupation’ as mentioned by Moeller, it may be likely that earlier phases of occupation at the site have been removed by a steadily progressing eastward migration of the Nile (see section 4.2.3). This natural damage from the river is

reflected in the silt layers present in the Inspectorate of Antiquities excavations of the Old Kingdom mastaba tombs (Moeller 2005a: 33-37). Therefore, as the river moved toward the eastern desert cliffs, the settlement contracted and migrated into what was once the early cemetery for the settlement, eventually constructing domestic buildings and temples over the more ancient remains. Evidence of this process is clear in the current location of the Old Kingdom tombs beneath the later domestic remains of the Greco-Roman Periods. This would also explain the location of the pyramid on a level beneath the surrounding mud-brick remains (Weill and Jouguet 1934-37: 88) and covered with later Roman archaeology (Weill 1912: 489). The significance of the cult of Horus of Hebenu in the myth of Horus and Seth ensured that the settlement would continue to attract royal investment. When exploring the plausibility of El-Minya as a location for Hebenu, Nims pointed out the lack of agricultural land on the east bank of the Nile at Zawiet Sultan in comparison to the fertile plain on the west bank (1950: 260). If an argument for substantial eastward migration of the River Nile is considered then an original foundation for Hebenu closer to the current site of El-Minya with a steady contraction to the remains now visible at Zawiet Sultan is possible, locating the original settlement of Hebenu in a much more agriculturally productive area while maintaining access to the limestone quarries of the eastern deserts.

The area on the immediate west bank from Zawiet Sultan has undergone substantial changes since the Napoleonic recording of the Egyptian floodplain, including the disappearance of settlements, reorganisation of agricultural land and incorporation of islands into the riverbank (see figures 4.21-4.23). However, a number of tell sites are reflected in the irregular street patterns of settlements on the west bank. A substantial mound in the centre of Beni Ahmed is clearly visible and provides a suitable location for ancient Hebenu; only 5.5km from the Zawiet Sultan necropolis.

Likewise, Nazlet Beni Ahmed Sharkheya 2.5km east of Beni Ahmed, and only 3.5km from Zawiet Sultan would also provide a suitable locality. The irregular field boundaries prevalent in this area are indicative of the narrowing of the Nile over recent centuries and the incorporation of islands into the floodplain. This wide, flat floodplain area would have provided an agriculturally productive hinterland in which to establish a regional administrative centre that may have utilised Zawiet Sultan's rock terraces to construct their elite cemetery. Here it is proposed that ancient Hebenu was originally founded on an island or levee in the floodplain west of Zawiet Sultan, probably in the vicinity of Beni Ahmed. As the river slowly migrated eastwards towards the Eastern Desert cliffs the settlement likewise moved onto succeeding levees and embankments, now reflected in a series of tell mounds within the modern settlements of Beni Ahmed, Nazlet Beni Ahmed Sharkeya and Nazlet El-Awam. While much must have been destroyed by the migrating river, the cemetery of Zawiet Sultan, used by the town's inhabitants since the Old Kingdom, remained protected from the landscape alterations and was eventually incorporated into the final phase of Hebenu during the Greco-Roman Period. A Roman Period dam found at the site indicates that very little river movement has occurred at the site since this period other than substantial narrowing of the river since the construction of the Aswan High Dam (Butzer 1961: 61; Kessler 1981: 58).²⁵

²⁵ During a survey of the region Butzer also found evidence within a depression around the mud-brick remains of Zawiet Sultan of thick silt deposits, evident of a period of high Niles or rainfall, which Butzer dated to a post-Classical period, c. AD 900 (Butzer 1959: 79).

5.2 *Her-wer* (*Hr-wr*)

5.2.1 Text catalogue

Source 5.2.a: False door of Tjenti

Origin: Saqqara

Date: early 4th Dynasty

Publication: Mariette 1895: 87-89; Kessler 1981: 120-121.



imy-r wp.wt hm-ntr Hnm hn.t(y) Hr-wr

Overseer of commissions, priest of Khnum foremost of Her-wer

Notes: The occurrence of this text in a tomb at Saqqara implies little about the location of Her-wer but is the first instance that the local deity, Khnum, is encountered. The burial of Tjenti at Saqqara is in accordance with a centrally controlled nome system, whereby administrators from local areas were buried in the royal necropolis close to the court area of Memphis.

Source 5.2.b: Relief from the mortuary temple of Sahure

Origin: Abusir

Date: 5th Dynasty

Publication: Borchardt 1981: 94-95, pl. 18; Kessler 1981: 121-122.



hn.t(y) Pr-s3 nb Hr-wr hn.t(y) Kbw nb Pr-Hnm

Foremost of the Per-sa, Lord of Her-wer, foremost in *Kebu*, Lord of Per-Khnum.

Notes: As with source 5.2.a this is most likely an early reference to the cult of Khnum at Her-wer and signifies its relevance as a religious site during the Old Kingdom. That the town's cult centre appears in a royal temple may be implicit of some degree of importance for the version of Khnum worshipped there – most likely in his form as a creator god.

Source 5.2.c: The rock tombs of Beni Hasan

Origin: Beni Hasan

Date: Late First Intermediate Period to early Middle Kingdom

Bakt I [BH 29] (BH II: pl. 31²⁶)

South wall (eastern half)



Hnm nb Hr-wr

Khnum, Lord of Her-wer

²⁶ The use of bold in these headings indicates the specific plates that the hieroglyphs reproduced here have been taken from though other mentions of Her-wer do appear on more plates given too.

Making monuments of eternity in the temple of Khnum, Lord of Her-wer

Main chamber, north wall

The honoured one of Khnum Lord of Her-wer, beloved by Hekat of Her-wer

North wall (eastern half)

A horizontal sequence of 18 pictographs representing various concepts in Proto-Indo-European languages. From left to right, they are: a stylized letter 'A' above two vertical ovals; a bull facing left; a semi-circle above a head profile; a bird in flight; a circle with a cross inside; a vase-like shape; a T-shaped object; a zigzag line above a triangle; a seated animal; a head profile; a semi-circle; a bird in flight; a T-shaped object; a circle with a cross inside.

Beloved of Khnum Lord of Her-wer, favoured by Hekat of Her-wer

East wall

Hekat, Lady of Her-wer

Southern architrave:



Honoured before Khnum Lord of Her-wer



Overseer of the God's-servants of Khnum, Lord of Her-wer

195

Source 5.2.d: Stela of Ipu, CG20025

Origin: Abydos, North Necropolis

Date: Amenemhat I, Year 20

Publication: Lange and Schäfer 1902: 29-33; Kessler 1981: 128.



ḥtp di Ḥwt-Ḥr nb(.t) Nfrws(i) ḥtp di Ḥnm nb Ḥr-wr

Offerings which Hathor, Lady of Neferusi gives. Offerings which Khnum, Lord of Her-wer gives.

Notes: That Ipu decided to mention these two local deities on his stela at Abydos is indicative of the importance of these two cults within the Oryx Nome region. It is also implicit of a relative proximity to one another. Other deities mentioned on the stela are associated with those around the settlement of Khnumu (Hermopolis) in the 15th Upper Egyptian nome and may imply that Her-wer and Neferusi should be located to the south of the 16th Upper Egyptian nome. The association between the towns of Her-wer and Neferusi became much stronger following the Middle Kingdom and it is possible that they merged together in later periods, as can be seen in source 5.2.g below.

Source 5.2.e: Inscription on the façade of the Speos Artemidos [lines 22-23]

Origin: Speos Artemidos

Date: 18th Dynasty, reign of Hatshepsut

Publication: Gardiner 1946; Kessler 1981: 140-141; Allen 2002; Goedicke 2004.

Her-wer and Unu [were poor of provisions], so I (re)-consecrated²⁷ the temples of their towns.

Notes: The translation provided here closely follows the reconstruction of the lacuna in the text proposed by Allen (2002). The text refers to the endowment of temples during the reign of Hatshepsut following a period of neglect during the Second Intermediate Period Hyksos control of Middle Egypt.

Like the stela of Ipu above (source 5.2.d), the closeness of Her-wer and Unu (Hermopolis, literally Heliopolis of the south) is stressed again in the Speos Artemidos inscription and may give greater confidence to ascribing Her-wer a location in the south of the Oryx Nome.

Source 5.2.f: Inscription of Djehuty, TT11

Origin: Thebes

Date: 18th Dynasty, reign of Hatshepsut

Publication: Sethe 1906: 434, 441; Kessler 1981: 141-142; Galán 2007: 779.

Hry-tp 3 m Hr-wr imy-r hmw-ntr n Hw.t-Hr nb.t Ksy

The great chief in Her-wer, Overseer of the God's-servants of Hathor, Lady of Cusae.

²⁷ Literally: ‘I caused to be godly/divine’.

Chief craftsman of the divine boat of Khnum, Lord of Her-wer in Neferusi

Notes: The unusual phrasing here implies that Her-wer is a town within the region of Neferusi. However, the determinative ☓ following each name suggests that the barque may simply have been visiting the temple of Hathor in Neferusi, perhaps during a festival or ritual. An alternative reading could be ‘Chief craftsman in Neferusi of the divine boat of Khnum, Lord of Her-wer’ indicating a visit to Neferusi by the divine boat of one God to a neighbouring town.²⁸

Source 5.2.h: Statues of Ani and Mut-Neferet, Cairo Museum, number unknown

Origin: Balansura

Date: 18th Dynasty, reign of Akhenaten

Publication: Daressy 1919; Kessler 1981:144-145.

Ani – text is inscribed around the base of the statue



T3w n k3 (n) Hnm nb Hr-wr di(.f) n.k ʕnh wd3 snb spd hr hr šms.k n k3 ḥsy n nb.f ḥ3ty-ʕ

n Nfrwsi Twny m3ʕ-hrw ir.t.n s3.f s:ʕnh r(n).f t3ty m t3 ḥ3ty-ʕ n Nfrwsi Mʕhw whm ʕnh

Adorations for the ka of Khnum Lord of Her-wer, (may he) give to you life prosperity and health, sharpness of face in your following, for the ka of the favoured one of his lord, mayor of Neferusi Ani, justified. Made by his son, who causes his name to live, vizier in the land, mayor in Neferusi, Mahu, repeating life.

²⁸ I am indebted to Tony Leahy for this alternative suggestion.

Mut-Neferet – text is inscribed around the base of the statue



n k3 n šmꜣyt n Hnm nb Hr-wr Mw.t-Nfr(.t)

For the *ka* of the chantress of Khnum, Lord of Her-wer, Mut-Neferet

Notes: Both statues were commissioned by Mahu, son of Ani and Mut-Neferet and also the mayor in Neferusi.²⁹ The titles recorded in the inscriptions demonstrate the increased connection between both Her-wer and Neferusi that is alluded to in other sources discussed above. The discovery of these two statues in the Balansura necropolis (according to Daressy, on the 15th May 1917) entails that these two towns must be located within a reasonable proximity.³⁰ The unusual readings of some sections of the text recorded by Daressy are in need of checking against the statues, now in the Cairo Museum, although they are unknown from publications outside of those listed here at this moment and were not located during a recent search at the Cairo Museum.

Source 5.2.i: Onomasticon of Amenemope (Papyrus Golénischeff V, and others)

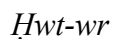
Origin: El-Hibeh

Date: 20th Dynasty

Publication: Gardiner 1947: 84-87 [379], pl. 11.

²⁹ The title *hꜣty-ꜣ* had become synonymous with settlements in the New Kingdom and thus more accurately rendered as ‘mayor’ than simply ‘high official’, as in earlier periods (Fischer 1977: 414).

³⁰ Daressy, in a different publication, also referred to vessels discovered at Balansura naming a prophet of Khnum Lord of Her-wer, however this research has not succeeded in locating any further references to these finds (Daressy 1895: 120).



Her-wer

Notes: The spelling of the name of Her-wer differs significantly throughout the sources, and this version may simply reflect a linguistic development over time. This form of the name now translates as ‘great house/estate/palace’ and could denote the cult temple of Khnum which had been located here since the Old Kingdom. Because of the arrangement of the Onomasticon, it is possible to deduce that Her-wer was west of Neferusi and that both were north of Hermopolis, but south of Hebenu. The settlement maintains a similar position in a list of settlements recorded at the temple of Medinet Habu (Daressy 1895: 120).

Source 5.2.j: pHarris

Origin: Thebes

Date: 19th Dynasty, reign of Ramesses III/IV

Publication: Grandet 1994: 200 (826), 311 (61b, 6), pl. 62.



People he has given to the domain of Khnum, Lord of Her-wer 34

Notes: Papyrus Harris records lists of personnel sent to work in temples across Egypt during the reign of Ramesses III. In this case 34 people were sent to the temple of Khnum Lord of Her-wer. This is one of the lowest numbers given in the list of estates

within the Oryx Nome. The cult of Thoth of *Pr-Wdjy* received 65 people and Amun of *Iw-rd* received 44. The cult of Hathor, Lady of Neferusi however does not feature in the list – which could be taken to imply that Her-wer, whilst receiving a lower number of workers than other sites, was still considered important enough to donate some workers to.

5.2.2 Previous attempts to locate Her-wer

1879, Brugsch

Brugsch, as part of his geographical analysis of Egyptian towns, did not equate Her-wer with an existing locality, but did deduce that *Hr-wr* and *Hwt-wr.t* were most likely synonymous with one another (1879: 524-525). He also identified that Her-wer was the most frequently mentioned settlement of the Oryx Nome, making it difficult to understand his reasons for labelling Hebenu as the ‘chef lieu’ of the area (see source 5.1.2 above). Although, Brugsch also questioned whether Her-wer and Hebenu may have been synonymous (1879: 153), which would certainly explain the lack of mentions of Hebenu in the tombs of Beni Hasan at the expense of more frequent mentions of Her-wer (see section 5.5). However, the two towns are never mentioned in the same textual context in the tombs and do not appear to share any functional similarities. The division of the towns in the Onomasticon of Amenemope (Gardiner 1947) would appear to disprove Brugsch’s consideration.

1916, Daressy

Daressy adopted the same opinion as Brugsch, that the two towns of *Hr-wr* and *Hwt-wr.t* were synonymous and so assigned them to the adjacent modern towns of Hur and

Qasr Hur on the east bank of the Bahr Yusef respectively (1916: 16).³¹ Daressy placed them here due to the etymology of the ancient and modern names of the towns as well as the existence of ancient settlement mounds beneath both locations. These mounds are separated by a shallow depression, in which the Bahr Yusef most likely once ran.

1919, Daressy

In 1919 Daressy corrected his equation by suggesting that *Hr-wr* and *Hwt-wr.t* were actually two separate localities and therefore equated *Hwt-wr.t* with Hur and Qasr Hur together, but settled on El-Birbah as the site of ancient Her-wer (1919: 57; see figure 4.30). Daressy concluded this based on the meaning of the name El-Birbah – ‘the temple’ – and its relative proximity to Balansura, the site he had chosen as the location of Neferusi. This entire theory rested on the discovery of the two statues in the necropolis west of the town of Balansura representing the mayor of Neferusi and his wife (source 5.2.h). Balansura and El-Birbah are situated roughly 5km from each other and so this location would provide the relative proximity implied through the texts analysed above. However, as both of these settlements are located on the western side of the Nile Valley their proximity to Beni Hasan is less obvious and the selection of these two localities fails to explain why Beni Hasan would be selected as a regional necropolis for the towns before the area of Balansura in the western desert. The equation of Her-wer with El-Birbah based on etymology is over simplistic and does not account for the number of cult temples recorded in the area that this name could make reference to, if indeed any of them. Rather, Her-wer should be sought within the closer vicinity of Beni Hasan.

³¹ Daressy, in an earlier publication, had already considered that Her-wer should be located at Hur. In this same publication he equated the less common toponym *Iw-rd* with Beni Hasan itself (Daressy 1900: 119-120).

1961, Montet

Following Daressy, Montet continued to separate the two towns of *Hr-wr* and *Hwt-wr.t* and in his analysis of the nomes of Egypt settled on locating the two ancient towns side by side at Hur and Qasr Hur respectively (1961: 151.ii). When locating both *Hr-wr* and *Hwt-wr.t* so close to each other Montet questioned whether these two towns could actually be the same settlement, and drew attention to their identical cults. Once again, both towns were chosen due to the similarity between their modern names and those of their ancient counterparts. Montet actually considered Her-wer as part of the 15th Upper Egyptian nome, reflecting the closeness in textual analysis between both Her-wer and the settlements of the southern region. However, this distinction is based purely on chronological assessments – in later periods the region of the Oryx Nome came under the influence of the Hermopolitans and gradually titles of officials operating in the area reflect this incorporation of districts.³²

1981, Kessler

Kessler pointed out that Hur and Qasr Hur would have been located beyond the southern boundary of the Oryx Nome during the Middle Kingdom and so drew on archaeological evidence to promote the town of Mantut as the ancient location of Her-wer. Kessler found some in-situ column fragments in the town which he felt indicated the existence of an ancient temple area (1981: 180), as well as a Middle Kingdom sphinx statue.³³ Mantut is a significantly sized settlement mound within the area and is closely linked to the adjacent eastern town of Garris, which are separated from each other by a shallow depression roughly 1km across (1981: 180). Further Roman

³² Individuals holding titles covering more than one administrative area become more common following the Middle Kingdom (see source 5.2.f). This is clearly reflected in the titles held by Petosiris and recorded in his tomb at Tuna El-Gebel (Lefebvre 1923; Cherpion et al. 2007: 39, 83, 90, 95, 101, 108-109, 130, 149, 151, 153, 157, 159, 169, 173, 179).

³³ Kessler dated the sphinx on stylistic grounds and a fragmentary Horus name to the reign of Senwosret III, or perhaps Amenemhat II (Kessler 1981: 183).

remains were found on the surface of a local necropolis just 250m north east of Mantut, implying that the settlement beneath Mantut was once much larger than the preserved mound and modern settlement (1981: 184). This theory provides a suitably large mound, with an adjacent location for the possible location of Neferusi (see section 5.3), it also raises some issues which will be discussed further in section 5.3.2.

5.2.3 Summary

The significance of Her-wer

The town of Her-wer itself is recorded from at least as early as the 4th Dynasty, evidenced by mentions of a cult of the god Khnum being established there (source 5.2.a). Following this early mention is a royal text from the mortuary chapel of Sahure at Abusir, which may allude to the significance of the cult established in the Old Kingdom.³⁴ The main function of Her-wer, as revealed by the texts, was as a religious centre for the god Khnum. The prominence of Khnum in relation to the town can also be seen in the popularity of the name Khnumhotep in the Oryx Nome throughout the Middle Kingdom and recorded regularly in the tombs at Beni Hasan. It is also during the Middle Kingdom that an accompanying cult of the goddess Hekat is found in Her-wer, probably as a consort to Khnum.³⁵ It is most likely that these were included in the cult establishments that were '[re]consecrated' by Hatshepsut and recorded in the Speos Artemidos inscriptions, perhaps after falling into neglect, or being damaged, during the Second Intermediate Period. By the New Kingdom it is clear that a close relationship between Her-wer and Neferusi is apparent, suggesting that both

³⁴ It is possible that the unidentified Khnum in source 5.1.i above may indeed be the form residing in Her-wer – in which case the deities of the Oryx Nome occupied an elevated position in the monument of Senowsret III at Dahshur.

³⁵ Although less frequently mentioned in comparison to Khnum Lord of Her-wer, the cult of Hekat is mentioned in the first line of a stela of Wahibre-merinut, from the Serapeum at Saqqara dated to year 34 of king Darius (Vercoutter 1962: 94), indicating that it too was a long functioning cult of the region.

settlements should be located close to each other and according to source 5.2.g perhaps even combined at some point. The connection between Her-wer, Neferusi and Hermopolis should also be taken into account when locating the town as they are frequently mentioned close to each other in the texts and even have the same officials working in their temples.³⁶ The fact that the temple of Khnum at Her-wer received workers under Ramesses III in pHarris is significant as it confirms the continued existence of the cult and also informs that in comparison to other temples of the region this temple did not receive as many employees, although being an older establishment this may be because it already had an ample workforce at its disposal.





The location of Her-wer

Date	Author	Proposed Location
1916	Daressy	Qasr Hur and Hur
1919	Daressy	El-Birbah - <i>Hr-wr</i> Qasr Hur and Hur - <i>Hwt-wr.t</i>
1961	Montet	Hur - <i>Hr-wr</i> Qasr Hur - <i>Hwt-wr.t</i>
1981	Kessler	Mantut
Current proposal		Mantut

Table 5.3: *A summary of previous attempts to locate Her-wer, including the proposal that this study favours.*

No urban remains can confidently be assigned the identity of ancient Her-wer within the area under study here, but it is certain from the texts that Her-wer is to be located within reach of Beni Hasan and Balansura, if both are considered as the principal cemeteries for those officiating in Her-wer during the Middle Kingdom and early New Kingdom.

³⁶ Again, this relationship is reflected in the titles of Petosiris as both Her-wer and Neferusi are mentioned in his tomb chapel (Cherpion et al. 2007).

As the cult of Khnum Lord of Her-wer often appears in textual contexts alongside cults and settlements of the 15th Upper Egyptian nome (the Hare Nome), it can safely be concluded that Her-wer should be sought towards the south of the Oryx Nome area. Likewise, a relationship between Neferusi and Her-wer is also apparent in the texts and as such may have been located within a close proximity of one another. The Victory Stela of Pi(ankh)y records that Namart, the ruler of Hermopolis and mayor in Her-wer,  , demolished the wall of Neferusi,   (Grimal 1981: 18-19, §4). This statement again links together the three settlements giving confidence to the location of Her-wer being in the south of the 16th Upper Egyptian nome, and possibly later incorporated into the Hermopolitan region of influence.

Because of the necessity to locate Her-wer in an area with two neighbouring koms, this thesis follows Kessler's conclusion that Mantut was the ancient site of Her-wer (Kessler 1981: 180). However, rather than considering the mound originally linked to the Nile via canals, it is more likely that both Her-wer and Neferusi were settlements along natural branches of the river and thus qualified for inclusion in the Onomasticon of Amenemope's list of *dmi.wt*. Successive migration of the river further to the east over the past millennia has resulted in the mounds being isolated in the centre of the western floodplain, although this would not have been their original position. As centres of trade and administration the two towns were well connected with good transport links to Hermopolis in the 15th Upper Egyptian nome. This close connection later resulted in officials holding titles across all of the settlements. It is likely that these changes in the natural environment around Hermopolis, investigated by Bunbury and Malouta (2012), would also have affected Her-wer and Neferusi further north causing their eventual abandonment or functional redundancy.

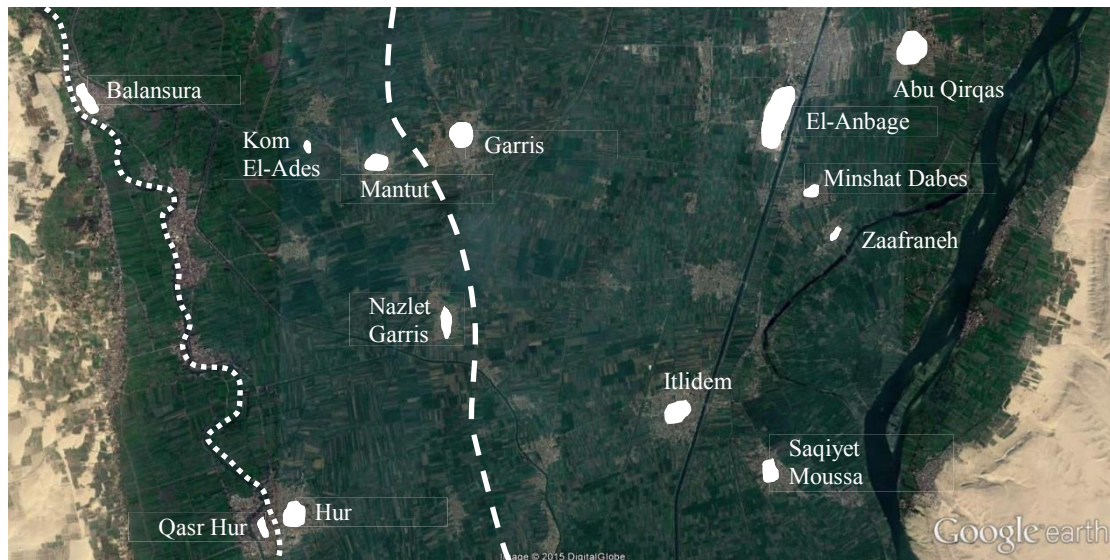







Figure 5.3: A hypothetical reconstruction of the region around Mantut and Garris during the Middle Kingdom extrapolated over a Google Earth satellite image taken in 2015. The tell sites are indicated by filled white shapes reflecting their current appearance revealed through field/settlement patterns. The dashed line represents a potential location for a branch of the Nile during the Middle Kingdom. It is probable that more than one branch ran through the Oryx Nome during this period (see section 4.2.3). The dotted line represents the Bahr Jusuf channel's possible location – in this instance separating the two tell mounds of Hur and Qasr Hur. This channel has been shown to be relatively static along its course (Bunbury and Malouta 2012: 120).

5.3 Neferusi (Nfrwsi)





5.3.1 Text catalogue

⊙	Source 5.3.a: Inscription from the tomb of Khunes
⌚	Origin: Zawiet Sultan, tomb 2
🦅	Date: 6 th Dynasty
📖	Publication: Wilkinson 1854: 144; LD I: 58-59; LD II: 105-109; Champollion 1889: 448; PM IV: 134-135; Gomaà 1980: 114-116; Kessler 1981: 122; Piacentini 1993: 49-50 [II.1.2].
🦅	hsfwt r ḥb Ḥwt-Ḥr nb.t Nfrwsi
⌚	Sailing upstream to the feast of Hathor, Lady of Neferusi

 Khnumhotep I [BH 14] (BH II: pl. 46)
 North wall, caption for depiction of his wife, Sat-ip
 *im3hy.t hr Hwt-Hr nb.t Nfrwsi*
 Revered one before Hathor, Lady of Neferusi


Amenemhat [BH 2] (BH II: pl. 13, **18**)

Main chamber, south wall (west end), caption for depiction of his wife, Hotept

 *hm.t.f mrr.t.f im3h.t hr hi.s hm-ntr Hwt-Hr nb.t Nfrwsi hnw.t t3.wy*
 His wife, his beloved, revered before her husband, God's-servant to
 Hathor, Lady of Neferusi, Mistress of the Two Lands


Notes: As with Her-wer above, the numerous mentions of Neferusi in the tombs of Beni Hasan do not give any indication of the location of the settlement within the area. However, as it often appears in connection with titles of the wives of the local officials it can be assumed that the temple of Hathor, Lady of Neferusi, should be located within the vicinity of the Beni Hasan necropolis.

Source 5.3.c: Kamose Stela

Origin: Karnak

Date: Late 17th Dynasty

Publication: Gardiner 1916; Habachi 1972; Smith, H. and Smith, A. 1976.

‘While I was on watch near the settlement, I sent a strong division of Majoi to enclose Teti son of Pepi by confrontation within Neferusi (𓂏𓂛𓂏𓂛𓂏𓂛). Thus I did not allow him to escape, and I imprisoned the ‘Alamu who were oppressing Egypt, for he was making Neferusi into a nest for the ‘Alamu. I spent the night in my boat, my heart being glad. When day dawned I was upon him as if I were a falcon, and I was putting him to flight when the hour of breakfast arrived. I hacked up his fortress, slaying his people and causing his women to descend to the shore: as lions are with their prey, so were my army with their servants, their cattle, their milk, fat and honey, in dividing up their possessions with joyous hearts’ (Smith, H. and Smith, A. 1976: 60).

Notes: By at least the Second Intermediate Period Neferusi appears to have become a fortified stronghold controlled by the Hyksos (‘Alamu). During Kamose’s campaigns to reunify Egypt he sacked the town (lines 12-14) and gave this account of the battle in a stela erected at Karnak. As the text is arranged chronologically it can be deduced that Neferusi is clearly north of Thebes (as Kamose must sail downstream first) and also north of Cusae – the Hyksos ruler’s southern border. Elsewhere in the stela, Neferusi appears alongside the town of Hermopolis and many others, which confirms a close proximity between the two towns.

The attack on Neferusi itself not only gives indications of the town’s location – but also its character. Kamose spent the night in a boat near the settlement while his army

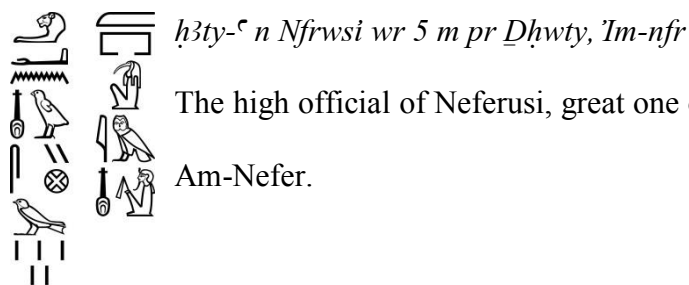
also caused the ‘women to descend to the shore’ – again indicating a waterfront at Neferusi. However, his Majoi also ‘enclosed’ the town, this could show that the town was not located on the water front itself, but set back slightly. The description also specifies that the town was walled which perhaps indicates that it had a defensive or strategic location within the area at this time.

Source 5.3.d: Graffito of Am-nefer

Origin: Aswan

Date: Early 18th Dynasty

Publication: Petrie 1888: 11, pl. VIII; Zivie 1975: 337-339; Kessler 1981:143.



The high official of Neferusi, great one of the five in the House of Thoth,
Am-Nefer.

Notes: The titles expressed in this graffito show that Am-nefer was both the mayor of Neferusi and the High Priest in the temple of Thoth at Hermopolis. The close relationship between these two locations implies that they lie close to each other and also indicates that Neferusi was incorporated into the administration of the 15th Upper Egyptian nome by the beginning of the New Kingdom. These titles remain connected into the latest periods of Pharaonic Egypt and can even be seen in the titles of Petosiris in his tomb at Tuna el-Gebel (Lefebvre 1923; Cherpion et al. 2007) where, nearby, a statue of Am-nefer was also found (Zivie 1975: 322-324).

Source 5.3.e: Stela of Iwna, BM EA1332

Origin: Unknown

Date: 18th Dynasty, reign of Tuthmosis III

Publication: Budge 1909: 142; Glanville 1932: 31 - 41, pl. II; Kessler 1981: 145.



ḥmww wr n p3 wī3 n Hnm nb Hr-wr m Nfrwsi

Chief craftsman of the divine boat of Khnum, Lord of Her-wer in Neferusi

Notes: Again the close relationship between Her-wer and Neferusi is shown through this text which was discussed for source 5.2.g above.

Source 5.3.f: pE3226, Louvre

Origin: Unknown

Date: 18th Dynasty, reign of Tuthmosis III

Publication: Megally 1971: 18, 25, pl. XIII, XXVIII, LXV and LXIX.



3bd 2 šmw sw 5 n3 n dp.wt m iwt m Nfrwsi [h3r] 225

Second month of Shemu, day five, the boats coming from/arriving in Neferusi (carrying) 225 (khar)

Notes: Again, reference is made to a waterfront location at Neferusi. In this instance Neferusi seems to be a regional centre for distributing goods or collecting them for transport. Redford has previously suggested that town and hinterland were

inextricably linked, and this text demonstrates this theory for the region around Neferusi (1997: 213). The produce of the region dependent on Neferusi was transported by boat to or from the town's quayside area.³⁷

Source 5.2.g: Statues of Ani and Mut-Neferet, Cairo Museum, number unknown

Origin: Balansura

Date: 18th Dynasty, reign of Akhenaten

Publication: Daressy 1919; Kessler 1981:144-145.

Notes: See source 5.2.h above for a discussion of these texts and their significance for both Neferusi and Her-wer.

Source 5.3.h: Onomasticon of Amenemope (Papyrus Golénischeff V, and others)

Origin: El-Hibeh

Date: 20th Dynasty

Publication: Gardiner 1947: 84-87 [378], pl. 11.



Nfr[y]wsy

Neferusi

Notes: The Onomasticon of Amenemope's list of *dmi.wt* is arranged in order from south to north and east to west and therefore Neferusi should be located south of Hebenu, and east of Her-wer.

³⁷ A similar inference can be made regarding the mention of Neferusi in pAmiens in which the produce of Neferusi is transferred by boat on the riverbank of the town (Gardiner 1941).

5.3.2 Previous Attempts to Locate Neferusi

1891, Maspero

During his investigations of the mound of Itlidem, Maspero discovered some columns incorporated into the ruined Islamic mosque in the town, which he equated to the columns that must have supported the temple of Hathor in Neferusi (1891: 516-517). Today Itlidem is on the west bank of the Nile opposite Sheikh Timai, roughly 3km from the River Nile, and so provides opportunity for riverine access discussed in the texts and also the southerly location of the town to assist in forging relationships with centres in the Hare Nome. Maspero believed that by assigning Neferusi to Itlidem and Her-wer to Qasr Hur and Hur it would have provided the link that is reflected in the texts (1891: 517). However, this creates a distance of at least 7km between the settlement mounds preserved there. If Helck's defined boundaries of the nomes are taken into account then both of these locations fall within the domain of the 15th Upper Egyptian nome and therefore should not appear in such prominent positions in the tombs of the 16th Upper Egyptian nome (Helck 1974: 111). Maspero also contemplated the equation of Neferusi with Kom El-Rahaleh, 2.5km to the south of Itlidem – but the same issues regarding boundaries applies to this proposal too.³⁸

1919, Daressy

During his analysis of the two statues discovered at Balansura in 1919 Daressy chose to fix the location of Neferusi at the town of Balansura on the east bank of the Bahr Yusef, opposite the necropolis where the statues were found (1919: 56). Daressy's simple reasoning for this allocation was its proximity to the necropolis, which he felt

³⁸ Kom El-Rahaleh is recorded on the *Description de l'Égypte* atlas and today is only visible as a small mound topped with a modern cemetery. Its location close to recent changes in the Nile's course around Gezirat Sheikh Timai (see figures 4.25-4.27) gives doubt to its more ancient access to the riverbank.

was the town's principal cemetery – due to the statues of the town mayor and his wife being found there (source 5.2.g). During this same study he also stated that Neferusi and Her-wer were inseparable in the textual evidence and so allocated El-Birbah for the location of the latter (see above).

1961, Montet

Montet broke with previous studies and located Neferusi on the east bank in the 15th Upper Egyptian nome by modern Sheikh 'Abada – a site more famous as the Roman city of Antinoopolis (1961: 152). Montet felt this site more convenient for the sake of river transport of troops during the battles that the texts indicate Neferusi played a role in. More recent research has shown that Antinoopolis probably had no access to the river during the Middle Kingdom in its current position and it was not until the Greco-Roman Period that the Nile had migrated this far east to allow a substantial settlement to be founded here (Bunbury and Malouta 2012: 120). However, evidence of New Kingdom temple fragments in Antinoopolis does support the existence of an earlier foundation for at least a small cult here (Montet 1961: 152-153) – although not necessarily that of Hathor, Lady of Neferusi. The location of Sheikh 'Abada does not explain the prevalence of Neferusi in the tombs of Beni Hasan, or indeed the appearance of a statue of the mayor of the town in the Balansura necropolis.³⁹

1981, Kessler

As with Her-wer, Kessler paid particular attention to the proximity indicated between this town and Neferusi, and also Hermopolis, Beni Hasan and Balansura. For this reason Kessler chose to locate Neferusi at the large and well indicated settlement

³⁹ Montet downplays the significance of the two statues being found in the Balansura necropolis due to the mobility of them. At only 77cm x 38cm x 82cm the statues are not very large, although Montet gives no indications for the motivation behind moving them (Montet 1961: 151; Daressy 1919: 53).

mound of Garris (1981: 184). This site is only 1km east of Mantut (Kessler's choice for Her-wer) and is in the centre of the west bank floodplain offering access to both Beni Hasan and Balansura. Because these towns are also situated in the area of the border between the 15th and 16th Upper Egyptian nomes they would have had opportunities to liaise with centres in the southern region and perhaps have come under their influence in later periods of Pharaonic history. Kessler proposed to link this town with the main Nile branch through a canal system, preserved in the more recent Gizr el-‘Azraq (1981: 74-77) canal that ran east-west connecting the Nile and Bahr Yusef through Garris and Mantut (1981: 184).⁴⁰ The canals needed to link this system together would have measured roughly 10km to the Nile and another 5km to the Bahr Yusef, which would require an enormous amount of man power to keep free of reeds and silt. However, by combining Kessler's theory with the geoarchaeological evidence discussed in chapter 4 it may be possible to find a more plausible solution to Garris's landlocked location, as well as affording it greater access to transport around the valley.

5.3.3 Summary

The significance of Neferusi

The texts outlined above give many indications regarding Neferusi's status within, not just the Oryx Nome, but also the Hare Nome to the south. It was clearly an administrative centre from the Middle Kingdom until at least the 25th Dynasty,⁴¹ as well as a cult centre for the goddess Hathor from at least the 6th Dynasty. In these respects the town was important enough to feature prominently in the tombs of the officials at Beni Hasan and also in the earlier tomb of Khunes at Zawiet Sultan. Some

⁴⁰ The Gizr el-Azraq is still visible in the atlas from the *Description de l'Égypte* (1820).

⁴¹ The victory stela of Pi(ankh)y, as discussed above with regard to Her-wer, also records an attack on Neferusi whereby its wall was torn down by Namart, the mayor of Her-wer (Grimal 1981: 18-19, §4).

texts, such as the stelae of Kamose and Pi(ankh)y describe Neferusi as a fortified town, and was perhaps located in a strategically important part of the valley.

The location of Neferusi

The Onomasticon of Amenemope implies that Neferusi should be sought to the east of whichever location can be assigned to Her-wer (see previous section) – this should be an important factor when assessing the potential locations of the towns. Also, as with Her-wer, a close relationship existed between Neferusi and Hermopolis to the south, as is demonstrated by the number of texts referring to all three localities. The prevalence of mentions of Neferusi in the tombs at Beni Hasan is indicative of a relative proximity to the necropolis which must have been regarded as the regional cemetery of the settlement. As Balansura took over from Beni Hasan as the regional necropolis during the 13th Dynasty (see section 3.4.4) it should also stand that Neferusi should be within this vicinity (see source 5.2.g). These two juxtaposing cemeteries are situated on opposite banks of the Nile and are at the extreme eastern and western desert edges. Finally, the mention of Neferusi in relation to a river front or quay must be taken into account. While it is possible that the exact location of Neferusi may no longer have riverine access, it must be within the zone of river migration to allow the site ancient river access alluded to in the sources.

Date	Author	Proposed Location
1891	Maspero	Itlidem or Kom el-Rahaleh
1919	Daressy	Balansura
1961	Montet	Sheikh ‘Abada
1981	Kessler	Garris
Current proposal		Garris

Table 5.4: *A summary of previous attempts to locate Neferusi, including the proposal that this study favours.*

Once again, no urban remains have confidently been attributed to Neferusi within the region under study; additionally there has been very little archaeological investigation into the settlement mounds that may provide the clues needed. From analysis of the texts and some analysis of satellite imagery it is possible to outline the mounds in the landscape that most accurately fit the locations alluded to in the texts preserved. A previous publication focusing on this research considered the evidence and found that Kessler's ascription of Neferusi to the mound beneath the modern town of Garris is very plausible (Graves 2013: 81). Accounting for its close proximity to the mound of Mantut (see above), it provides a suitable locality to reconstruct both Neferusi and Her-wer. The sites of Garris and Mantut provide an opportunity to analyse what effect landscape changes had on the development of towns and their interaction with one another.

5.4 Menat-Khufu (Mn'.t-~~H~~wfw)

5.4.1 Text catalogue

Source 5.4.a: Inscription of Sankh

Origin: Wadi Hammamat

Date: 11th Dynasty, reign of Mentuhotep IV.

Publication: Breasted 1906: 217; Couyet and Montet 1912: 32-33.



Nb-t3.wy-R^c ʕnh d.t

imy-r mš^c hr h3s.wt imy-r pr hr Kmt

imy-r msnw hr itrw S:ʕnh dd

iw ir.n(.i) imy-r mš^c n t3 pn r-dr.f hr h3s.t tn ʕpr (m) šdw.w [...]

m t hnḳ.t hni nb w3d n šm3w ir.n(.i) in.wt.s m w3d ḳ3w.s

m [...] nt mw ʕpr m hrd.w r-dr.s hn.t(y)

T3^cw mḥty r Mn^c.t-Hwfw pr.kw r w3d-wr [...].n(.i) 3pd.w

[...].n(.i) mnmn.t pr.n(.i) r h3s(.t) tn m s rnpt 60 hrd.w 70 m ms.w n w^c.t

ir.n(.i) mt.t nb n Nb-t3.wy-R^c ʕnh d.t

Neb-tawy-Re, living forever.

The Overseer of the troops in foreign lands, Steward in Egypt,

Overseer of the harpooners upon the river, Sankh says:

‘I acted as Overseer of the troops of this land to its limit and throughout this foreign

land, equipped (with) water-skins(?),

with bread, beer and all fresh vegetables of Upper Egypt. I made its valleys flourish,

its heights

as [pools] of water. Equipped with children to its limit, south to

Tjau and north to Menat-Khufu. I went forth to the sea and [hunted] birds and [hunted] cattle. I went forth to this foreign land as a man of 60 years, and children (totalling) 70 as offspring of one woman.

I did every pleasing thing for Neb-tawy-Re, living forever.

Notes: This text relates to an expedition made by Sankh into the eastern desert, through the Wadi Hammamat, whereby he transported people for the purpose of settling along the desert road and Red Sea area. Menat-Khufu's use in the text is not immediately useful in locating it, and Tjau's location is equally unknown. However, the former's reference in relation to the eastern desert may help to explain why the town became the residence of the Overseers of the Eastern Desert during the reign of Amenemhat I.

Source 5.4.b: Inscription from the north wall in the tomb of Khnumhotep I

Origin: Beni Hasan [BH 14]

Date: 12th Dynasty, reign of Amenemhat I

Publication: BH I: pl. 44, p. 84.



h3ty-^c n Mn^c.t-Hwfw

High official of the town of Menat-Khufu.

inheritor of his father's title in Menat-Khufu. Unfortunately, these texts give little indication as to the function of the settlement, or its location. However, the unique title of those officiating from the town, the Overseer of the Eastern Deserts, may entail that Menat-Khufu should be sought on the east bank of the Nile.

5.4.2 Past Attempts to Locate Menat-Khufu

1818, Jomard

Jomard established that the land available on the east bank beneath the tombs of Beni Hasan was insufficient to allow the development of a community capable of constructing the monuments. This view is quite restrictive, particularly with regards to the amount of land needed to support demographic figures in Egypt not been fully understood. Therefore, Jomard located Menat-Khufu on the west bank opposite the Beni Hasan necropolis in the area of Medinet Daoud (1818: 33).⁴² This large area of ruins, still accessible at the time of the Napoleonic campaigns, lies to the west of Abu Qurqas, but is today beneath fields, settlement and factories.

1879, Brugsch

By studying the etymology of the name, Menat-Khufu, Brugsch felt that the name was preserved in the Coptic designation TMOONE (1879: 255). He connected this with the modern city of El-Minya and recognised both as important centres in the area – both then and now. However, the lack of references to Menat-Khufu after the Middle Kingdom is not in favour of tracing an etymology through to the Coptic Period. El-Minya also appears to be too far north in the region for the town to appear

⁴² Medinet Daoud is synonymous with the area of mounds visible at the time also known as El-Anbage. This area is now built over by a sugar factory at Abu Qurqas, although a significant rise in terrain is still noticeable on satellite images.

so prominently in the tombs of the Overseers of the Eastern Deserts, and would perhaps not have afforded the access to the deserts that may have been required for this particular role.

1891, Maspero

Maspero followed the suggestion of Jomard and sought Menat-Khufu on the west bank of the Nile in the vicinity of Abu Qurqas. He settled on the mound at El-Anbage (of which Medinet Daoud formed part) to the south of Abu Qurqas, which is today built over by a sugar cane factory (1891: 508). Maspero recognised the issues with this theory in that the texts imply that Menat-Khufu should be sought on the east bank of the Nile. Intuitively he decided to move the river, rather than the town and concluded that the river must once have run to the west of El-Anbage and have migrated around the ruins (1891: 509-510). Maspero also considered Brugsch's equation of Menat-Khufu with El-Minya (see section 5.1). However, because Maspero had chosen to locate Hebenu at El-Minya he had to assign Menat-Khufu to a location further south in the region.

1893, Amélineau

Despite Maspero and Jomard's analysis of the landscape, Amélineau investigated the Coptic texts once again and settled on the same conclusion as Brugsch – that Menat-Khufu should be sought in the vicinity of El-Minya. According to Amélineau, TMOONE also has a rendering of 'nurse' in Coptic and so directly related to the naming of Menat-Khufu (1893: 257).

5.4.3 Summary

The significance of Menat-Khufu

Unfortunately the number of texts referring to Menat-Khufu is particularly low, limited to the Wadi Hammamat text and inscriptions from only two tombs at Beni Hasan. Significantly, there are no mentions of a cult establishment at Menat-Khufu which implies that its primary role was as an administrative settlement. The name of the town would indicate a foundation during the Old Kingdom, presumably during the reign of the 4th Dynasty king Khufu, as the name translates directly as ‘The wet-nurse of Khufu’. This may indicate a place that the king stopped but does not necessarily imply a vast centre controlling the region. This foundation may be related to the development of rock-cut tombs in the cliffs at Nuerat on the east bank north of Beni Hasan, dated from the 4th-6th Dynasties (Garstang 1907; see section 3.4.2). The complete lack of mentions at Beni Hasan during the early Middle Kingdom is conspicuous and may relate to a lack of preserved records or perhaps a lack of status during this period. The settlement only gains recognition again when it becomes the residence of the ‘Overseers of the Eastern Desert’, who are described in their tombs as the ‘high official in Menat-Khufu’. Their role is intrinsically linked with the necropolis of Beni Hasan and perhaps also in the eastern desert. After the Middle Kingdom there are no references to the town which implies that the town was abandoned, destroyed, or that its name was changed – if the latter is true then it would be very difficult to trace the development in the texts. Despite the lack of references to Menat-Khufu, it is given as a nome capital in some publications, such as Baines and Malek’s 2000 *Cultural Atlas of Ancient Egypt* (14-15). A study of comparative texts and archaeology in the region suggests that this is not necessarily the case. However, Menat-Khufu’s founding during the 4th Dynasty may relate to Old Kingdom ‘internal

colonisation’ methods designed to make best use of agricultural land within the Nile Valley (Kees 1958: 33-34; Baines 2013: 157). This consideration would explain the settlement’s apparent administrative function, as opposed to any religious purpose.

The location of Menat-Khufu

Date	Author	Proposed Location
1818	Jomard	Medinet Daoud (El-Anbage)
1879	Brugsch	El-Minya
1891	Maspero	El-Anbage
1893	Amelineau	El-Minya
Current proposal		El-Anbage

***Table 5.5:** A summary of previous attempts to locate Menat-Khufu, including the proposal that this study favours.*

The Beni Hasan texts indicate that Menat-Khufu should certainly be sought to the east of the Oryx Nome, within reach of the necropolis and also to provide some access to the Eastern Desert. The modern east bank of the region is particularly narrow which makes locating ancient settlements there problematic as it is densely cultivated. Despite the texts indicating that Menat-Khufu should be located on the east bank of the River Nile, only the proposal of Maspero offered a solution for a location on the west bank by moving the river. The two suggestions to the north of the region at El-Minya fail to account for the large distance between the tombs of the residents of Menat-Khufu and the town and do not explain the lack of mentions of Menat-Khufu in the tombs of Zawiet Sultan should it have been located that far north. The two theories by Jomard and Maspero had the foresight to envisage that the east bank may not have always been this narrow and that the river itself may have moved in antiquity. If Maspero’s conclusion is assumed, it may also explain why Menat-Khufu does not feature again in Egyptian texts, as the migrating river may have destroyed the settlement and shifted focus onto the neighbouring towns of Her-wer and

Neferusi. The morphological changes occurring in the Nile Valley, as outlined in chapter 4, support the theory that the river has migrated over the ancient town of Menat-Khufu and now lies to the east of its ancient location. El-Anbage is a substantial area of mud-brick mounds and could certainly have supported an administrative settlement of the complexity necessary to house the Overseers of the Eastern Desert and their families and a community of workers involved in the construction and provision of a necropolis such as Beni Hasan.

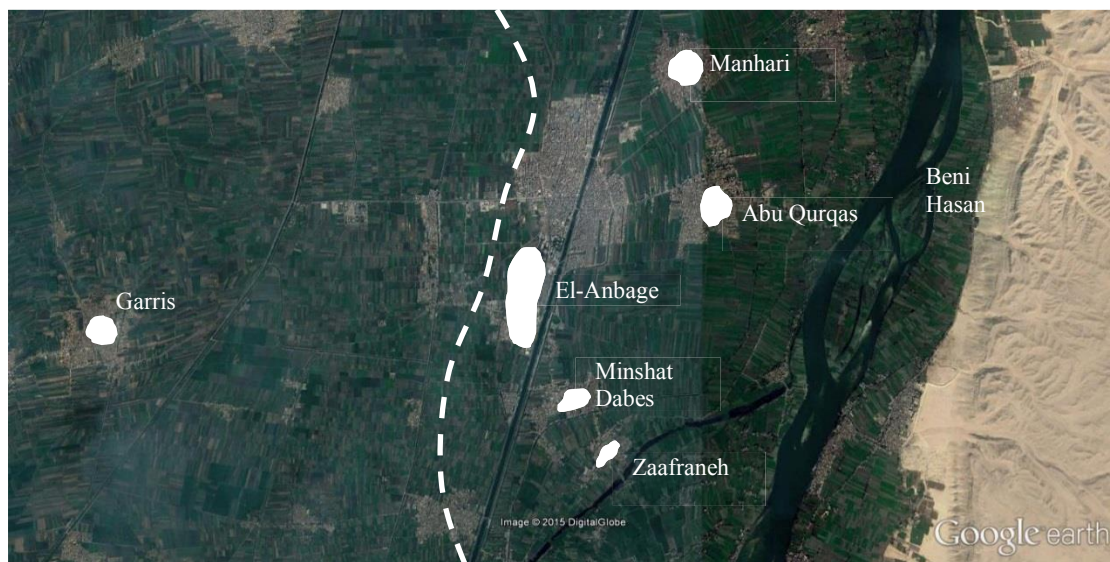


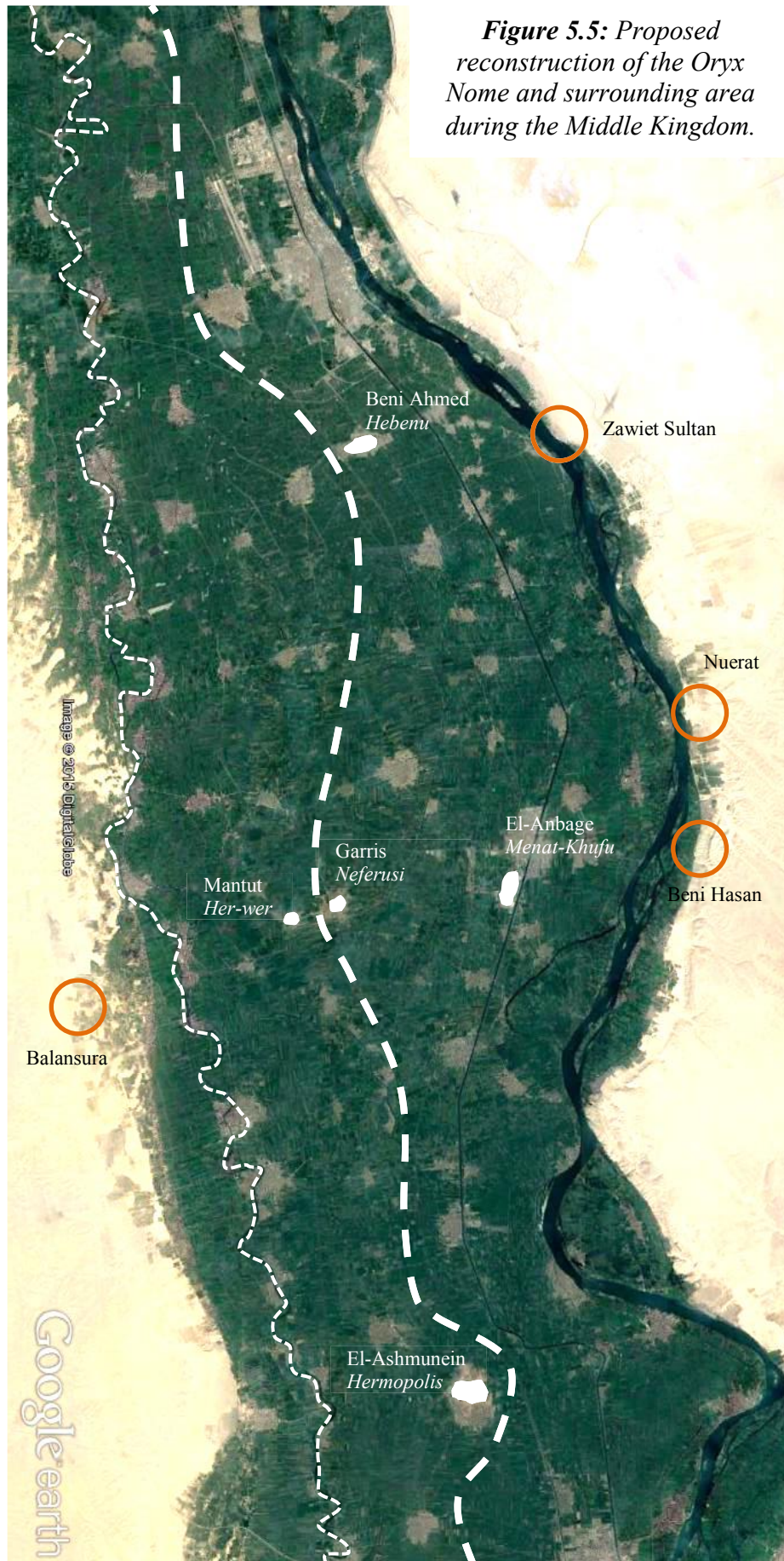
Figure 5.4: The current landscape of the area around Abu Qurqas, indicating the area of El-Anbage and its proximity to Beni Hasan, and also Garris (see section 5.3 above). The long shape of the tell site at El-Anbage, as recorded in the *Description de l'Égypte* indicates that the site was originally founded on a levee of the river. The dashed line represents a possible position of a Nile branch during the founding of Menat-Khufu. Over time the river has moved away from this area towards the east possibly around the settlement though perhaps causing damage to the hinterland and infrastructure needed to support it.

5.5 Summary

The texts discussed in this chapter reveal the complex nature of settlement development and location within the ancient Egyptian Nile Valley. Although other sites are mentioned in the Beni Hasan tombs, these four are frequently referred to as major cult centres within the region, or else the residence of the tomb owner (in the case of Menat-Khufu). From the geoarchaeological evidence presented in chapter 4 it is evident that this stretch of the valley has been subjected to a number of changes over the millennia of its human occupation. A hypothetical reconstruction of the region during the Middle Kingdom is proposed in figure 5.5. The main Nile branch would here have migrated up to 9km to the east over the past four millennia, this fits within the limits of movement rates proposed by Hillier et al. (2006), Lutley and Bunbury (2008), Graham (2010), and Bunbury and Malouta (2012).⁴³ As also recognized by Bunbury and Malouta, the Bahr Jusuf has remained in a relatively stable location throughout its history with only small meander migration around tell sites visible, such as at Hur and Qasr Hur (2012: 120). The proposed reconstruction of the region offered in figure 5.5 accounts for the numerous tell sites visible within this area, although only those settlements discussed above have now been highlighted – with the addition of Hermopolis to demonstrate the viable routes of communication available to those sites in the south of the Oryx Nome.

⁴³ See discussion in section 4.2.3, particularly table 4.9.

Figure 5.5: Proposed reconstruction of the Oryx Nome and surrounding area during the Middle Kingdom.



Not indicated in figure 5.5 are the numerous minor waterways that must have once covered the Nile Valley. These smaller streams are recorded in the *Description de l'Égypte* atlas, but have since been straightened and canalised by human intervention. Butzer proposed that, as well as the Bahr Jusuf, the Nile Valley must once have had other similar branches, particularly in the wider areas of the floodplain (1976: 16-17). He also acknowledged that shifts in the main branch channel have complicated efforts to assign nome boundaries to specific areas (1976: 77). This is certainly apparent in this region, where a modern perception of the valley as a relatively stable ecosystem can conceal the more dynamic nature of riverine habitation. As demonstrated in section 4.2.3, ancient levees often measure around 3m higher than the surrounding landscape (Butzer 1976: 16), and can be seen in satellite images in the irregular field boundaries and settlement distribution along them (Lutley and Bunbury 2008: 4). The proposed main Nile branch in figure 5.5 follows the natural contours of the valley through a shallow depression bounded by modern settlements containing the outlines of visible koms beneath them. Further levees can easily be seen to the east of this proposed branch indicating subsequent Nile migration paths.

While Lutley and Bunbury initially proposed that settlements on the eroding side of the river would be destroyed by migration (2008: 4), the evidence from the Oryx Nome indicates that this may not be the case. Hillier et al. had already concluded that migration around islands does not entail destruction of the settlement (2006: 3), and this is similarly seen in the case of Zaafraneh in this study (see figures 4.24-4.26). This evidence may therefore indicate that Neferusi was likewise founded on an island, and subsequent Nile migration to the east caused the narrower channel between Neferusi and Her-wer to silt up. A local change like this may account for the

close relationship that developed between the two settlements that is apparent in the textual records.

Menat-Khufu's status, as residence of the Overseers of the Eastern Desert, appears to be its sole function. There are no records of a cult establishment, or any indication that it was located alongside a riverbank. Its disappearance from the records after the Middle Kingdom may simply be due to its lack of importance within the region, or possibly its abandonment following the collapse of the family of Khnumhotep I. As its inhabitants appear to have had strong links with the Eastern Desert, including the area of the Wadi Batn El-Baqara (Speos Artemidos, see section 6.4), it is likely that this settlement was located on the east bank, within the area of modern Abu Qurqas and El-Anbage. From this vantage point the inhabitants had relatively easy access into the Eastern Desert, and also the necropolis of Beni Hasan. It may be possible that this was the location of a vast funerary industry and home of the craftsmen that were active in this region throughout the use of Beni Hasan as a regional cemetery (see chapter 6).

The location of Hebenu at Zawiet Sultan is relatively certain. The numerous inscribed items and tombs found at the site confirm that Zawiet Sultan was Hebenu, or at least its principal necropolis. However, it is unlikely that Hebenu was established here in its earliest phase and a location on the current west bank is more likely. A few tell sites in this region may reflect different phases of Hebenu's long history throughout the Pharaonic Period, and would account for the relative lack of pre-Greco-Roman urban remains at Zawiet Sultan. Due to the advancement of the river eastwards across the floodplain, it is probable that substantial erosion has removed some of the remains that may previously have existed beneath these modern settlements. Hebenu reflects a classic case of 'settlement migration' whereby the

inhabitants of a town move with the river, constantly rebuilding their town on the most suitable spot, such as the next highest levee (Davies and Friedman 1998: 42-43; Graves 2013: 80).

The proposed locations of the four settlements discussed in this thesis are summarised in table 5.6 below. As acknowledged above, further work in the field would be required to confirm these localities through survey and excavation. However, in areas where settlements or modern cemeteries cover the ancient remains archaeological fieldwork is often not possible and so hypothetical reconstruction, like that presented here, allows for a more focused approach to further research, whether that includes on-the-ground survey or a phenomenological study to ascertain the viability of the localities chosen. This has been one of the three main aims of this thesis and sets the parameters for further research.

Settlement	Occurrence in tomb											
	29	33	27	15	17	14	21	23	2	3	4	13
Hebenu - Beni Ahmed*						X			X			
Her-wer - Mantut	X		X	X	X	X			X			
Neferusi - Garris				X	X	X			X	X		
Menat-Khufu - El-Anbage						X				X		

Table 5.6: *The occurrence of the settlements mentioned in the tombs of Beni Hasan with their proposed locations (adapted from Kamrin 1992: 43; 1999: 29).*

**Proposed location is between Beni Ahmed and Zawiet Sultan.*

The functions of the settlements discussed are somewhat easier to elucidate. In Kamrin's study of the tombs of Beni Hasan she listed the occurrence of settlement names in the tombs, which is reproduced for the four settlements of interest here in table 5.6. Although it is one of the most frequently mentioned settlements, Hebenu appears very little in the tombs of Beni Hasan. As discussed above, its connections

with state religion imply that the cult of Horus established in Hebenu had little impact on the daily lives of those governing the Oryx Nome during the Middle Kingdom. The town does appear to have been the administrative centre of the nome during the Old Kingdom however, and continued to maintain an important position into the Greco-Roman Period. Similar longevity can be seen in the texts recording Her-wer and Neferusi. Their significance during the Middle Kingdom as cult centres of Khnum, Hekat and Hathor were a crucial element in the administration of the nome. Their position appears to continue into the New Kingdom when their relationship strengthens, perhaps through a physical joining following the migration of the Nile around Neferusi. This settlement's significance in the region, as both a harbour town and also a fortified stronghold during the Second Intermediate Period (Smith, H. and Smith, A. 1976: 60), implies that this town may have become the regional administrative centre, for at least the southern area of the Oryx Nome. Texts mentioning Her-wer, Neferusi and Hermopolis after the Middle Kingdom demonstrate the increasing contact between the 15th and 16th Upper Egyptian nomes, coinciding with the appearance of official titles covering both regions (such as Petosiris, Lefebvre 1923; Cherpion et al. 2007). The dearth of texts referring to Menat-Khufu on the other hand implies that its status was quite low outside of the daily lives of the Overseers of the Eastern Desert. There is little indication that its influence spread any further than the region of the Oryx Nome.

CHAPTER 6

THE ORYX NOME AS A SOCIAL HABITAT

From the evidence presented so far, a vivid impression of the physical characteristics of the Oryx Nome during the Middle Kingdom has become clear. The Nile Valley was much wetter, with the likelihood of numerous river branches criss-crossing the landscape in more sinuous patterns than are exhibited today. Within this lush region a number of major centres were established by the inhabitants, each fulfilling different roles for the populace and spread throughout the Nome. It is now possible, within this reconstructed backdrop, to generate a network of social relationships by inserting a community – a community preserved through the tomb decoration and funerary equipment preserved in the cemeteries of Beni Hasan.¹

6.1 Problems with the evidence

There are many caveats in approaching a topic such as this if choosing to utilise categories of social class that may aid comparison and familiarisation with modern western, particularly British, social classes. Evidence from the lower classes, or poorer strata, of society is not immediately forthcoming from Beni Hasan and any information gleaned was certainly not recorded by those individuals themselves. Likewise, the decoration and funerary assemblages preserved at Beni Hasan were not selected to exemplify a contemporary social system, but were perhaps chosen for symbolic reasons, or to indicate the tomb owner's personal social standing, interactions, and world view (Kamrin 1999; Seidlmayer 2007; Maitland 2015: 42, 210). For these reasons it is best to consider Egyptian society in this region during the

¹ Previous work contributing to an understanding of the society living around the necropolis of Beni Hasan has been conducted by Tooley (1989), Orel (1995), Kamrin (1999), Rabehl (2006), Seidlmayer (2007), Kanawati and Woods (2010), and Maitland (2015).

Middle Kingdom from the perspective of occupational relationships and roles, social and environmental interaction, and cultural symbolism. The material evidence itself from Beni Hasan is a marker of social standing, by exhibiting levels of authority and resource control that indicate governance over the natural environment and its produce within the Oryx Nome. It was only the upper classes of Egyptian society that were able to control these resources, including labour, and thus were able to be buried in cemeteries such as those at Beni Hasan.

Much of the evidence under discussion here is not unique to the Middle Kingdom cemeteries of Beni Hasan, notably some tomb models² and specific common themes within tomb decoration³ can be found throughout the Egyptian Nile Valley and across a multitude of periods, as discussed by Maitland (2015). However, there are a number of more unique scenes or items that may serve to exemplify the deceased's personal choices and could therefore be indicative of daily life activities or personal lived experience. These instances in the tomb decoration have been seen by Alice Victoria Baines (1995) as examples of personal biography within the tomb decoration, and Kanawati has also drawn on these 'incidental themes', as he terms them, which he describes as 'scenes depicting important moments/events in the life of the tomb owner' (2001: 108). On the other hand, Seidlmayer warns against this way of viewing visual evidence (2007: 356):

'It would be fatally naïve to view them as "snapshots" of the Ancient Egyptian countryside. Rather they may be understood as a pictorial map of the social matrix within which the existence of the tomb owners both in this and in the other life was conceptualized.'

² Models such as sailing boats, rowing boats, offering bearers, and granaries appear regularly in tombs from as early as the Old Kingdom (Tooley 1995: 12).

³ Typical tomb scenes such as fishing and fowling can be found across Middle Kingdom rock-cut cemeteries like Meir or El Bersha (see below).

In Kamrin's analysis of the tomb of Khnumhotep II [BH 3] she summarised the traditional approaches for understanding tomb decoration and suggested an alternative approach for studying the scenes. Traditionally they had been divided into three categories: offering scenes, ritual scenes, and scenes of daily life (Kamrin 1999: 41-42, for the latter see Montet 1925). While it is clear that many of the scenes in the tombs of Beni Hasan can be divided this way, Kamrin draws on approaches promoted by Kent Weeks (1979) and Dieter Kessler (1987a, 1987b, 1990); rather than seeing these activities as documenting the everyday activities of ancient Egyptians, she suggests that these are instead symbolic representations with underlying meanings.⁴ Similarly, Angenot has used hermeneutics to investigate the interpretation of tomb scenes such as those at Beni Hasan (2015: 108-109). She argued that they symbolically and metaphorically represent a multitude of meanings 'without transgressing any iconographic taboo' (2015: 110). The ancient Egyptians did not divide the world into such dualities as secular and sacred as the western world does today and Weeks has warned against dividing the scenes via these distinctions, instead promoting that many scenes of daily life were also imbued with meanings that may now be difficult to determine (Weeks 1979: 60). The Egyptians did however categorise the world around them – something most apparent in the aforementioned Onomasticon of Amenemope. As well as listing settlements it also includes lists of natural elements (sky, earth, and water), titles, occupations, buildings, cereals, drinks, and cuts of meat (Gardiner 1947: 37; Nims 1950). The text opens with the following statement (Gardiner 1947: Ch.II, 2):

'Beginning of the teaching for clearing the mind, for instruction of the ignorant and for learning all things that exist: What Ptah created, what Thoth copied down, heaven with its affairs, earth and what is in it, what the mountains belch forth,

⁴ Kamrin's analysis of BH 3 indicated that the tomb chapel created a microcosm of the ordered world (1999). Application of this same approach to other cemeteries has not produced similar results, as indicated by Gillam's assessment of the tombs at Meir (2010: 140-141).

what is watered by the flood, all things upon which Re has shone, all that is grown on the back of earth, recorded by the scribe of the sacred books in the House of Life, Amenemope, Son of Amenemope.’

Weeks draws attention to the prevalence of categorisation in Ancient Egypt and, like Angenot after him (2015: 117), the danger of implementing modern cultural bias onto depictions in Memphite tomb scenes that may equally be understood as methods of categorisation (Weeks 1979: 61). He suggests that tomb scenes depicting types of food, or their production and preparation, serve to symbolically depict all food and magically provide nourishment for the deceased in the afterlife. However, questions surrounding why the food types depicted within the tombs were chosen, at the exclusion of others, should also be considered (Weeks 1979: 62). The context of the scene is the key to understanding its meaning according to Weeks’ advice (1979: 65). Although Weeks presents his methodology with regard to tombs in the Old Kingdom Memphite necropolis, Kamrin has convincingly demonstrated how asking those same questions of tombs at Beni Hasan may provide more information about their owners’ expectations in the afterlife and personal experiences in life (Kamrin 1999). The repetition of scenes throughout the Beni Hasan tombs, and the multitude of similar scenes and motifs across the Nile Valley from the Old Kingdom through to the Middle Kingdom entails that they should be viewed as part of an artistic repertoire shared throughout Middle Egypt.⁵ However, a number of more specific motifs and themes do appear within the Beni Hasan tombs, which will be discussed in this chapter.

This study straddles the symbolic and literal interpretation of the tomb scenes and considers that that can be used to investigate the activities taking place and the

⁵ Kanawati expresses that ‘the Egyptian artist was bound by his repertoire and by the rigid rules which governed his methods of depiction, resulting in the close similarity of certain types of scenes’ (2001: 84). While this is undoubtedly true, the symbolic meanings preserved by the scenes in question is likely responsible for their wide-spread use and longevity.

society that would have been encountered within the Oryx Nome during the Middle Kingdom. In many ways these scenes could restrict a reconstruction of social networks. For example, the tomb scenes and models omit depictions of people working in the limestone quarries, shopping for groceries, or eating dinner – all activities that had to have occurred and yet were perhaps too mundane to be converted into the funerary repertoire.⁶ In the tomb scenes of the upper necropolis there are few depictions of women and children outside of the nomarchial families, and temple administrators remain completely absent. On this latter observation Seidlmayer comments (2007: 364):

‘This fact is probably due to the thematic focus of the mortuary situation. The decoration of the tombs is all about depicting the tomb owner’s household and, very broadly, the realm of his rule. It is not about drawing up a table of the different structural segments of regional administration.’

This very fact underpins why many activities are not reflected in the funerary assemblage. A recent study by Bommas focusing on the shaft tombs of the lower necropolis also makes reference to the difficulty in determining social relationships within tomb decoration, inscription, and funerary goods (2012: 46). Seidlmayer (2007) previously demonstrated that it is possible to take account of the titles preserved, particularly in tombs BH 2 and BH 3, in order to construct a more complete picture of the activities of officials operating within the elite strata of Oryx Nome society. The regular interaction between sacred and secular meaning within ancient Egyptian culture, as discussed by Weeks, should not be forgotten and by bringing together all of these elements a step toward considering how the ancient

⁶ Reference has previously been made to the lack of sexual encounters represented in Egyptian tomb scenes, which Weeks has proposed should be read symbolically in other scenes. However, as Karmin points out, there is a unique scene of sexual intercourse to be found in the tomb of Khety I [BH 17] at Beni Hasan (Weeks 1979: 59-60; Karmin 1999: 44). Likewise, sexuality may be symbolically represented in a number of other scenes, such as the fowling scene on the east wall of BH 3 (Karmin 1990: 108).

Egyptians viewed and utilised the world around them should become apparent. The problems outlined above highlight the difficulty in understanding lower levels of Egyptian society by utilising the written and pictorial evidence available. Often the only way to consider the daily lives of the ordinary inhabitant of the Nile Valley is to contemplate the daily concerns and activities that should be expected within a geographically and geologically dynamic riverine environment.

6.2 The evidence

As has already been introduced in chapter 3, Beni Hasan is comprised of two cemeteries. Excavation of both cemeteries revealed that the funerary goods interred with the deceased were very similar across both burial grounds, usually consisting of wooden models and ceramics.⁷ Unfortunately, the upper necropolis burial shafts were badly disturbed and so little remained of the original burials when Newberry and Fraser excavated them (BH II: 79-81). At least ten of the shaft tombs in the lower necropolis were found intact by Garstang and so were used to reconstruct a typical burial in the region for the officials and elites. Garstang demonstrated that the usual tomb models interred with the deceased remained typical within assemblages at the site from at least the First Intermediate Period into the Twelfth Dynasty of the Middle Kingdom.

This thesis does not aim to present all of the evidence available from Beni Hasan, including tomb decoration, funerary equipment, ceramics, burial typologies, geographical and geoarchaeological evidence.⁸ Instead a number of traits will be

⁷ The few archaeological artefacts discovered in the burial shafts of the upper necropolis were described briefly by George W Fraser in BH II: 79-81. The 888 tombs and their contents are summarised by Garstang (1907: 211-244).

⁸ A study of inscriptions was conducted by Schenkel to provide a chronological sequence of the Beni Hasan tombs (1962); Bourriau (1981; 1991) provides a brief overview of burial customs at Beni Hasan and comparison with other Middle Kingdom necropolises; Willems (1988) has conducted a number of

studied in relation to the evidence provided in previous chapters relating to how the evidence from Beni Hasan exhibit ways in which the ancient inhabitants of the Oryx Nome interacted within and constructed their cultural landscape.

6.2.1 Overview of the upper necropolis

Table 6.1 provides an overview of the scenes preserved in the ten decorated tombs in the upper necropolis at Beni Hasan. The difference in degrees of preservation between the earlier and later tombs is possibly responsible for the lack of scenes in some early examples; however the patterns of distribution of scenes around the individual monuments prove useful in reconstructing the decoration of some of the incomplete scenes or unfinished tombs. In some instances it was appropriate to divide larger scenes into smaller segments, or motifs, these are indicated by italics beneath the larger set in which they appear. Reference to Kamrin's (1999) study of the tomb of Khnumhotep II's decorative programme is made in the third column, as well as her conclusions regarding location within the landscape (fourth column) and time of year depicted (fifth column). The specific location within the tomb that the scene can be found is indicated across the top and divided into north wall (N), east wall (E), south wall (S), west wall (W), and shrine (Sh). Figure 3.14 should be kept in mind while using this table as tombs BH 15 and BH 17 were likely contemporary with tombs BH 14, BH 21 and BH 23, and therefore the sequence of this table should not be seen as chronologically linear but rather overlapping. Type 2b tombs are less decorated than their type 2c counterparts and may reflect the smaller nature of them or a change in decorative programme. Likewise, the issues surrounding who decorated the tombs or

studies about regional style of coffins, including Beni Hasan; for typological studies of ceramics from Beni Hasan see Seidlmayer (1990) and Orel (1993); Kamrin's discussion of the tomb decoration in BH 3 (Khnumhotep II) gives a background to the artistic repertoire towards the later phases of Beni Hasan's use (1999); Rabehl (2006) does a similar exercise for BH 2 (Amenemhat). See chapter 3 for further discussion of previous scholarship about Beni Hasan.

directed the choice of decorative programme should be borne in mind. For example, it is recorded on the east wall of tomb BH 23 that (BH II: pl. 24):

*Hnm-ḥtp ir.n B3kt m3^c.t-ḥrw nb.t im3ḥy.t ir.f n it.f mry.f ḥ3ty-^c imy-r ḥm-ntr
[Ntr-nḥt] ir.n ʿry.t-ḥtp m3^c.t ḥrw*

Khnumhotep, born of Bakt, justified, Lady of honour, he made it for his father, his beloved, high official, Overseer of priests [Netchernakht] born of Arythotep, justified.

Likewise, on the southern end of the western architrave in the earlier tomb of Khety I [BH 17] it is stated (BH II: pl. 18):

Ir rn[.f ḥr] mn.w dt in s3.f iw^c.f Hty

One whose name is written upon monuments of eternity by his son, his heir Khety.⁹

The dynastic nature of ruling families in the Oryx Nome is therefore apparent, and indeed this familial link is made explicit in the autobiography of Khnumhotep II [BH 3] (BH I: pl. 26, lines 161-169; for a full translation see Lloyd 1992: 24 [2cVII]):

*s:ḥnh.n.i rn n it.w.i gm.n.i wš ḥr sb3.w
rḥ m tit mty m šd.t nn di.t ky m ʿb ky
ist s3 pw mnḥ s:rwḏ rn n tp-^cw(y)
Nḥri s3 Hnm-ḥtp m3^c-ḥrw nb im3ḥy*

I caused the name(s) of my forefathers to live which I found destroyed upon the doors
they being known by the signs, exact in reading, without [re]placing one (sign) with another.
Lo, he is an excellent son who causes the name(s) of his ancestors to endure
Neheri's son, Khnumhotep, justified, lord of reverence.

⁹ Khety's heir Khety (II) was possibly the owner of tomb 18, see chapter 3 and Brovarski 2010: 48-50. An inscription in the tomb of Khety [17] may also make reference to his installation as the heir of Nakht (BH II: 61, Pl. 17).

Decoration		Kamrin Ref.	Location in Landscape	Time of Year	Tomb 29				Tomb 33				Tomb 27				Tomb 15				Tomb 17				Tomb 14				Tomb 21				Tomb 23				Tomb 2					Tomb 3				
Scene	Specific motif				N	E	S	W	N	E	S	W	N	E	S	W	N	E	S	W	N	E	S	W	N	E	S	W	N	E	S	W	N	E	S	W	Sh	N	E	S	W	Sh				
Agriculture	Ploughing	W12	Floodplain	Peret			X													X														X				X								
	Sowing	W12	Floodplain	Peret																													X				X									
	Harvesting	W11	Floodplain	Shemu																X													X				X									
	Viticulture		Floodplain	Shemu																X													X				X									
	Grain storage	W10	Floodplain	Shemu																X									X								X									
Food preparation	Baking	W7	Floodplain													X						X												X				X								
	Brewing	W7	Floodplain																															X				X								
	Drying fish		Floodplain		X																													X				X								
Animal husbandry	Cattle fording waterways	W14	Marsh	Peret	X																X												X				X									
	Feeding animals	N8	Floodplain	Shemu																																X										
	Fighting bulls	N9	Floodplain	Shemu			X						X				X			X								X						X												
	Monkeys													X											X																					
	Tied bull				X		X																					X																		
	Animals in a tree						X														X													X				X								
Mythical animals	<i>š</i>		Desert										X			X																														
	<i>sfr</i> / Griffin		Desert										X			X	X																		X											
	<i>shd</i>		Desert										X			X																														
Hunting, fishing and fowling	Bird traps		Floodplain												X	X	X																													
	Fishing by seining	W15	Floodplain	Peret	X							X	X	X										X								X			X											
	Fishing by fishermen using rod		River																																			X								
	Fishing by tomb owner using harpoon	E3	Marsh	Akhet	X				X											X																X										
	Fowling by fowlers using clap net	N5	Marsh	Akhet	X				X						X	X			X					X								X		X												
	Fowling by tomb owner using clap net	E2	Marsh	Akhet																																	X									
	Fowling by tomb owner using throw stick	E1	Marsh	Akhet																																X										
	Hunting	N1	Desert	Peret	X				X						X			X			X									X				X												
	- <i>Archer, bull, dog (and tree?) motif</i>		Desert	Peret											X			X												X				X												
	- <i>Copulating animals (within the hunt scene)</i>		Desert	Peret											X			X																												
	- <i>Leopard?</i>		Desert	Peret											X			X												X																
	- <i>Lion(ess) over animal</i>		Desert	Peret			?								X			X												X																

Decoration		Kamrin Ref.	Location in Landscape	Time of Year	Tomb 29				Tomb 33				Tomb 27				Tomb 15				Tomb 17				Tomb 14				Tomb 21				Tomb 23				Tomb 2					Tomb 3				
Scene	Specific motif				N	E	S	W	N	E	S	W	N	E	S	W	N	E	S	W	N	E	S	W	N	E	S	W	N	E	S	W	N	E	S	W	Sh	N	E	S	W	Sh				
Crafts	Artist training															X																														
	Boat building	W6	Floodplain																																					X						
	Building the tomb?	W9	Desert																																					X						
	Flint knapping														X																															
	Furniture production/carp entry	W3	Floodplain																X																						X					
	Metal working														X																															
	Harvesting reeds				X										X						X																									
	Pottery production	W5	Floodplain															X																							X					
	Sandal making														X																															
	Spinning and weaving	W8	Floodplain												X				X																							X				
	Statue and cultic equipment manufacture														X				X																							X				
	Stave production																X		X																											
	Weapon making																																										X			
	Daily life	Gardening	W13	Floodplain	Shemu																																							X		
Musicians															X				X		X																					X				
Sexual intercourse																			X																											
Washing cloth		W2	Floodplain												X				X																								X			
Games/ Sports/ Activities	Board gaming															X		X																												
	Fighting boatmen	E5	Marsh	Akhet	X										X																											X				
	Dancing														X				X																								X			
	- <i>ib3</i>																X		X		X																					X				
	Juggling girls																X				X																									
Life at Court	Dwarf attendants						X				X				X					X																										
	Petitioners and scribes	N11	Floodplain	Shemu												X		X																							X					
	Tomb owner (occ. with attendants)	W4, N2	Floodplain			X	X					X		X	X		X		X		X		X				X			X										X	X					
	Tomb owners' family	Sh2, Sh4, Sh5			X												X				X		X		X					X					X						X			X		

Decoration		Kamrin Ref.	Location in Landscape	Time of Year	Tomb 29				Tomb 33				Tomb 27				Tomb 15				Tomb 17				Tomb 14				Tomb 21				Tomb 23				Tomb 2					Tomb 3				
Scene	Specific motif				N	E	S	W	N	E	S	W	N	E	S	W	N	E	S	W	N	E	S	W	N	E	S	W	N	E	S	W	N	E	S	W	Sh	N	E	S	W	Sh				
Warfare and combat	Battle scene																	X				X				X							X													
	- <i>Dog on left of fort</i>																	X				X										X														
	- <i>Siege barrier on right of fort</i>																	X				X										X														
	Wrestlers							X					X			X			X				X									X														
Cultic, ritual, funerary, and procession activities	Boat procession to Abydos	W16	River	Akhet																			X									X											X			
	Boat procession from Abydos	W16	River	Akhet																			X																				X			
	Boat procession to Busiris	W16	River	Akhet																													X													
	Celebration of cultic rites	S4																																	X									X		
	- <i>ḥm-k3, sm3, hry-ḥb.t</i>																																			X								X		
	Procession of birds	N3	Desert	Peret																X																							X			
	Procession of foreigners	N4	Desert	Peret																				X									X										X			
	Procession of offering bearers	S5, N7	Floodplain	Shemu	X	X				X		X			X			X	X	X	X						X					X		X	X	X	X	X	X	X	X		X			
	Procession of animals	N6, N10	Floodplain	Shemu	X	X	X			X	X				X			X	X	X	X												X		X			X		X						
	- <i>Man in striped tunic</i>																	X								X						X														
	Slaughtering	S6					X						X							X	X	X													X						X					
	Transport of statue in naos	W1	Floodplain															X		X		X											X											X		
	Offerings	False door	S7				X					X											X												X						X					
Menu of offerings		S2, Sh3				X							X															X						X						X				X		
Preparation of offerings						X				X				[X]																				X												
Tomb owner at offering table		S1				X							X								X		X										X						X				X			
Tomb owner family member at offering table		S3																																X						X				X		

Table 6.1: Scenes and motifs preserved in the upper necropolis at Beni Hasan

Where the scenes are unclear, a question mark has been inserted into table 6.1, and where a scene is only known through a description given by Newberry but no image or drawing is provided the mark is inserted within square brackets.¹⁰ The programme of decoration in the later tombs is described in the opening lines of the autobiography of Khnumhotep II, and gives some suggestion as to why the scenes were chosen (BH I: pl. 25, lines 4-13; for a full translation see Lloyd 1992 21-22 [1b]):

sp.f tpy m s:mnḥ niwt.f
s:rwḏ.f rn.f n nḥḥ
s:mnḥ.f sw n dt m is.f n hr(.t)-ntr
s:rwḏ.f rn n knbt.f s:mnḥ ḥft i3.t.sn
mnḥ.w imw pr.f tni.n.f ḥnt mrt.f
i3.t nb.t hrpt.n.f ḥmw.t nb.t mi ḥpr.s

His first act consisted of making his township effective
 he caused his name to endure for eternity
 he made it effective forever in his tomb of the necropolis
 he caused the name(s) of his council to endure as well as making effective their offices
 (namely) the effective ones who are in his household whom he had distinguished above his
 followers
 every office he administered and every craft according to its form.

This description of who and what is depicted within the tomb, and how it is arranged demonstrates the division of scenes according to occupation (office/craft) rather than social class. It also offers another avenue for understanding how the ancient Egyptians categorized their social world. Likewise, it reveals why captions to the scenes become more prevalent and the naming of individuals within scenes more frequent in tombs BH 2 and BH 3. Many of the named individuals fall within the elite sector of society and are usually captioned with their titles, such as *M3-ḥd-Hnm*'s son *Hnm-s:ḥnḥ* who was both a *wr-swnw* (Master Physician) and a *imy-r pr* (Overseer of the House) to the Nomarch Amenemhat [BH 2]. His position in the tomb expresses a particular closeness to the deceased as he is shown directly behind the larger scale figure of Amenemhat on the north wall of the main chamber while a procession of officials are presenting themselves and offerings to the deceased (BH I: 16-17, pl. 13). Being both an Overseer of the House (Steward) and

¹⁰ In some cases the table has been compiled using images published in Shedid (1994), or Kanawati and Woods (2010).

a Master Physician exhibits the potential of individuals to move between occupational roles or hold more than one title and thus confuse analysis of tomb scenes. Prosopographical studies are therefore difficult to conduct due to these changing roles and preference for common names within the community – particularly names focused on the local deities (theophoric) and/or ruling families (such as Khnumhotep, Khnumnakht, Khnumu).

Kessler's studies of decorative aspects in the tomb of Khnumhotep focused on its symbolic connection with the *wp-rnpt* (New Year's) festival (1987a, 1987b, 1990). This is based largely on an assumption of royal ideology being incorporated into the regional artistic repertoire. Although a similar methodology has not been exercised across all of the ten decorated tombs in the necropolis, it might be concluded that the scenes are multifaceted in their symbolism, as frequently alluded to by Kamrin (1999). Drawing on Kamrin's work on the tomb of Khnumhotep II, Rabehl focused her thesis on understanding the development of the decoration of tombs at Beni Hasan, specifically in relation to the tomb of Amenemhat [BH 2] (Rabehl 2006: 4-5). This chapter will also take account of all of the decorated tombs at Beni Hasan, and will utilise Kamrin's and Rabehl's analyses to decipher what the tombs can reveal about the lives of the individuals living within their vicinity.

6.2.2 Overview of the lower necropolis

Garstang records excavating 'some twenty [tombs] which were found intact' among the 888 shafts of the lower necropolis at Beni Hasan, however only ten are listed as intact in the published catalogue of tombs (1907: 79, 211-244). Utilising only those tombs that Garstang published as 'undisturbed', table 6.2 summarises their burial assemblages.

Garstang rarely listed the quantity or types of vessels discovered within the shafts, and likewise made little reference to any organic offerings found within the burial chambers in his catalogue. However, it is clear from his more lengthy discussion of four undisturbed burials that

these goods were regularly found.¹¹ Thorough attempts to create a ceramic typology of Beni Hasan by Seidlmayer (1990) and Orel (1993) have given similar, although not exact, results to studies using other forms of evidence such as coffins (Willems 1988).¹² Remains of sacrificed ox were also found frequently in the tombs of the lower necropolis (Garstang 1907: 62, 68, 83, 99 and 105-106), and can be compared with the scenes of butchery (possibly sacrifice or slaughter) found in the upper necropolis tombs, as well as the wooden models listed in table 6.2. A comparison between tables 6.1 and 6.2 exemplifies that a number of themes are replicated across both cemeteries, but in different mediums. However, while granary and boat models are common, perhaps even ‘typical’, across burials in the lower necropolis they only feature in a minority of decorative programmes in the upper necropolis. It is thought that similar models as those discovered in the lower necropolis were also placed in the burial shafts of the upper necropolis (see below), and so the purpose of the wall decoration may have served a different function to the models. Considering Kent Weeks’ analysis of Memphite tombs above, questions such as why the choice to divide themes between three-dimensional wooden/ceramic medium and two-dimensional wall decoration should also be asked.

The tomb goods found in the lower necropolis were likely mass produced in local workshops specialising in funerary furniture (Garstang 1907: 48). The location of these industries may have been at the settlement of Menat-Khufu (see section 5.4), the closest administrative centre to Beni Hasan. In his analysis of the burials investigated in the upper necropolis, Fraser recorded that a coffin discovered in tomb BH 24 had been carefully inscribed but with space left to insert the name of the deceased which was later entered in a different hand and style, so crudely that it was unreadable (BH II: 80). It is therefore probable that the choice of which funerary goods and decoration would be placed within the tomb was initially predicated by economic viability and subsequently directed at an intended audience or user of such items, such as the deceased or those

¹¹ For a full list of objects discovered, distributed and subsequently catalogued, see Orel 1993: 510-578.

¹² A summary of these previous approaches was given in chapter 3.

involved in the maintenance of their cult. Although ceramics are not listed in table 6.2, their abundance in the shaft tombs exemplifies the intention to provide food and drink offerings for the deceased. Vessels, such as W13423 in Birmingham Museum and Art Gallery found in shaft 178, may entail that there were active water offering rituals performed on the desert slopes by relatives during the funeral and after (Bourriau 1981: 60-61).

Funerary Goods	Occurrences
Agricultural work(?) and brick manufacture model	1
Baking model	4
Baking and brewing (combined) model	1
Baking and butchery (combined) model	3
Baking, brewing and butchery (combined) model	2
Boat ('war') model	1
Boat (rowing) model	10
Boat (sailing) model	10
Brewing model	3
Butchery model	3
Canopic box	2
Granary model	10
Headrest	3
Jewellery	1
Man carrying vessel model	1
Man feeding cattle model	1
Man leading cattle model	1
Man with ox-leg model	1
Model implements (agricultural, carpentry etc.)	4
Oar (individual) model	1
Offering bearer (female, basket on head, offerings in hand) model	8
Sandals	5
Scribal equipment	1
Spinning and weaving (combined) model	1
Statuette (<i>ka</i> – statue)	2
Staves	1
Weapon (archery equipment)	1
Tombs used:	
1 (Antef), 116 (Nefery, Mererut, Erdines), 186 (Nefwa), 275 (Thay), 366 (Khety), 500 (Ma'a), 575 (Khety-a), 585 (Khnumnakht, Netchernakht), 707 (Apa), 723 (Sobekhotep)	

Table 6.2: Number of times funerary goods appeared in the ten undisturbed tombs listed by Garstang (1907: 211-244).

The arrangement of shafts within the lower necropolis of Beni Hasan also indicates the existence of a large funerary industry in the area. The development of the cemetery was outlined more fully in chapter three.

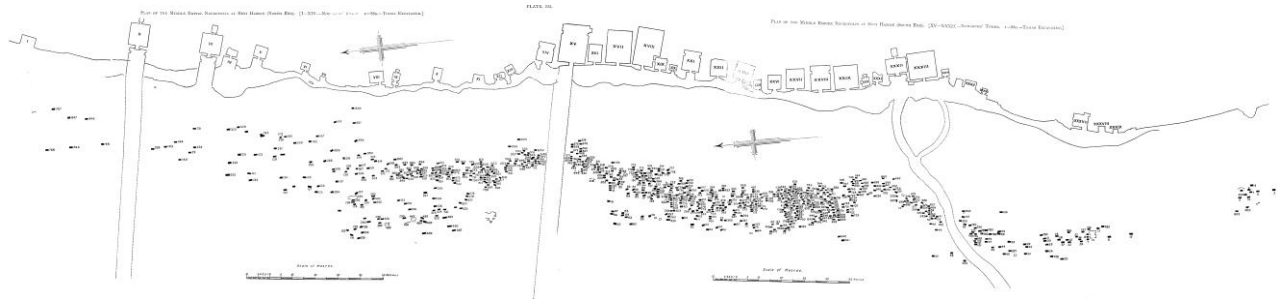


Figure 6.1: *Garstang's plan of the lower necropolis cemetery (1907: pl. 3 and 4)*

Garstang's map of the Beni Hasan cemetery exhibits the intensive use of the central and southern area of the site from the First Intermediate Period through to the late Middle Kingdom. Space, and the management of it, was certainly a concern to the ancient Egyptians and is exemplified in the careful and rigid planning of their settlements during the Middle Kingdom. Town plans such as Kahun (Petrie 1891), Qasr el-Sagha (Sliwa 1992), and Wah-sut (Wegner 2007a), all exemplify the desire by the state to rigidly plan and control populations and the environments in which they lived. It is probable that similar planning and control was also exercised on a more regional level, and perhaps also in non-domestic contexts. A 13th Dynasty stela from Abydos (Cairo JE 35256) gives evidence for management of a local necropolis to ensure that burials were not constructed across processional routes (Leahy 1989: 43):

‘As for anyone who shall be found within these stelae, except for a priest about his duties, he shall be burnt. Moreover, as for any official who shall cause a tomb to be made for himself within this holy place, he shall be reported and this law applied to him and to the necropolis-guard as (is the case) today. But as for everywhere outside this holy place, (it is) an area where people may make tombs for themselves and where one may be buried.’

That necropolises were controlled by local officials is not surprising and reflects the bureaucratic nature of Middle Kingdom Egypt, but begs the question as to whether Beni Hasan had similar officials controlling its cemeteries.¹³

Access to the tombs in both necropolises must have been of concern both during the funeral and also in the maintenance of the mortuary cult. Garstang believed that the chapels of the upper necropolis also served the shaft tombs below (1907: 51) and therefore formed a focal point for cultic rites. The presence of causeways on the desert slopes leading to tombs BH 2, 3, 15, and possibly also 19, would have provided routes leading from the edge of the floodplain to the upper terrace. Similar causeways, such as those at the Qubbet el-Hawa, preserve false doors carved into their walls which would have allowed cultic rites to be performed on behalf of those interred on the escarpment. No false doors have been preserved in the causeways of Beni Hasan as they were found simply lined with loose rocks, rather than carved into the bedrock. However, Garstang discovered ten stelae in the lower necropolis giving detail of only six, while Orel published another two (Garstang 1907: 184-188; Orel 1995). These stelae may have formed focal points for the cults in the lower necropolis; although, the number is low in relation to the number of burials and gives little indication of social status and relationship.¹⁴ Garstang also commented that most of them include false door motifs, which may account for the exclusion of this design in the causeways (1907: 187). Seidlmayer proposed that superstructures covering the shafts across the desert slope would have housed the stelae and provided another focal point for remembrance (1990: 218). Garstang's plan records a number of large surface features, although he only presents one rock-cut statue chapel above shaft 290 in his publication (Garstang 1907: 51). While no superstructures survive today, Seidlmayer proposed that more once existed but have become the victims of wind-blown sand erosion (1990: 218). The more accessible chambers of type 3 tombs in the upper necropolis perhaps

¹³ The topic of cemetery management is discussed more fully under point 6.3.2 below.

¹⁴ The notable exception is the stela of *Nḥri iri n T3.t*, who is likely to be equated with the female treasurer Tchat, second wife of Khnumhotep II. Neheri is depicted in the tomb of Khnumhotep II on the south wall of the main chamber, participating in the cultic rites (BH I: pl. 35; Ward 1984; see above).

allowed for rituals with a larger attendance that may have referred to the wall decoration within them and this may explain why a number of extra scenes are depicted than could be represented in the tomb assemblages of the lower necropolis. These rituals may have involved the deceased of the lower necropolis, although it is probable that many rites left no trace in the archaeological record, or only involved ceramics – which are easily destroyed when left on the surface of the desert slope.

6.3 The regional ruling families

Without discounting that much of the evidence introduced above had symbolic meaning within the funerary context, it is also possible to utilise the same items and decorative aspects to explore the characters that were active within the Oryx Nome during the Middle Kingdom. Kanawati and Woods have already proposed that the ‘depictions would seem to be based on the tomb owner’s/artists life experience and observation of the world around them’ (2010: 1). By using the upper necropolis tomb decoration and inscriptions, and the lower necropolis funerary assemblages, an impression can be proposed that populates the landscape generated in previous chapters, including the possible concerns and considerations that intertwine many of the activities visible in the evidence discussed.



Figure 6.2: *A causeway at Qubbet el-Hawa with a false door carved into the southern side providing a place for the mortuary cult to be observed (image by author).*

Focus will begin with those at the highest level of local society, the ruling officials. Throughout this thesis these families have been divided into two groups: Nomarchs and Overseers of the Eastern Desert. However, a division is not always possible, as figure 3.14 indicated. These are not the only titles used by those in the highest strata and table 6.3 outlines all of the titles of tomb owners in the upper necropolis (including BH 13). Where a title is known, but is indicated in a different source (i.e. the autobiography of Khnumhotep II [BH 3]) then it is indicated as such in the table. Newberry thought that Khety [BH 17] may also have held the title of Overseer of the Eastern Deserts due to some ‘fanciful hieroglyphs’ painted on the northern wall of BH 17 (BH II: 58, pl. 14). As these are of dubious reading it is indicated in the table with a question mark. If Khety did hold this title, then he would be one of the first to hold both titles, perhaps coinciding with Khnumhotep I and/or Nakht.

Many of the titles recorded in table 6.3 are typical of the period and may be missing in some tombs simply due to issues of preservation. Occasionally it is the subtle alterations to the more regular titles that link the officials more closely with the Oryx Nome. For example, all of the officials are listed as *ḥ3ty-ꜥ* (High official), but only those holding the title Overseer of the Eastern Desert are located geographically at the administrative centre of Menat-Khufu as *ḥ3ty-ꜥ m Mnꜥ.t-Hwfw*. Fischer equates this development to the previously honorific meaning of *ḥ3ty-ꜥ*, which during the 12th Dynasty became more frequently associated with townships, changing the reading from ‘High official’ to something more similar to ‘Mayor’ (Fischer 1977: 408-417). The continued use of the title for Nomarchs, particularly in the Oryx Nome, may have been to ensure that their power covered the entire nome and not necessarily just one settlement – which may have been the case for the Overseers of the Eastern Deserts. Titles related to roles within local religious institutions also provide geographic indications, something that will be discussed more fully below.

Title	Occurrence in tomb											
	29	33	27	15	17	14	21	23	2	3	4	13
<i>iwnw-šm^cw</i> Pillar of Upper Egypt Fischer 17a	X	X	X		X							
<i>imy-is</i> Councillor Ward 23	X	X	X	X	X	X			X			
<i>imy-r wp.wt ḥtpw-ntr</i> Overseer of the inventories of divine offerings Ward 122									X			
<i>imy-r pr</i> Steward/Administrator (Overseer of the house) Ward 132												X
<i>imy-r mš^c wr n M3-ḥd</i> Overseer of the soldiers of the Oryx Nome Ward 208									X			
<i>imy-r mš^c m s.t nb.t šb.t</i> Overseer of the army in every secret/difficult place Ward 213					X							
<i>imy-r ḥmw-ntr</i> Overseer of the God's servants Ward 259						X			X	X		
<i>imy-r ḥmw-ntr n Hr ḥwi.t</i> <i>Rhy.t</i> Overseer of the God's- servants of Horus, Smiter of the Rekhyt								X				
<i>imy-r ḥmw-ntr n Hnm nb Hr- wr</i> Overseer of the God's- servants of Khnum, Lord of Her-wer Fischer 274a									X			
<i>imy-r ḥt-nb.t rdi.w pt km3 t3</i> Overseer of everything that heaven gives and earth creates Fischer 289d									X			
<i>imy-r smy.wt i3bty.wt</i> Overseer of the Eastern Deserts Ward 341					?	[X] BH3	X	X		X		

Title	Occurrence in tomb											
	29	33	27	15	17	14	21	23	2	3	4	13
<i>imy-r sš.wy šhmh-ib</i> Overseer of the two marshes of pleasure Ward 351									X			
<i>imy-r db whmt šwt hnmt(?)</i> Overseer of the horned, hooved, feathered and scaled animals Ward 64									X			
<i>iry-p't</i> Hereditary prince Ward 850						X		X	X	X	X	
<i>iry-p't iry ḥd n Gb</i> Prince connected to the White Chapel of Geb Ward 851										X		
<i>iry Nhn</i> Keeper of Nekhen Ward 523	X	X	X	X	X	X			X			
<i>mty n s3 m pr P3ḥ.t</i> Controller of a phyle in the house of Pakhet Ward 805												X
<i>mty n s3 m ḥw.t-ntr</i> Controller of a phyle in the temple Ward 807									X			
<i>rḥ nsw</i> King's acquaintance	X	X	X	X	X	X			X	X		
<i>rḥ nsw m3^c m šm^cw</i> True King's acquaintance in Upper Egypt									X			
<i>ḥ3ty-^c</i> High official Ward 864	X	X	X	X	X	X	X	X	X	X	X	
<i>ḥ3ty-^c m pr-wr</i> High official in the Upper Egyptian Shrine Ward 871										X		
<i>ḥ3ty-^c m Mn^c.t-Ḥwfw</i> High official in Menat-Khufu Fischer 874a						X	[X] BH3			X		
<i>ḥm-ntr Inpw tpy dw.f</i> God's servant of Anubis, who is upon his mountain Fischer 900a										X		

Title	Occurrence in tomb											
	29	33	27	15	17	14	21	23	2	3	4	13
<i>hm-ntr n Šw Tfn.t</i> God's-servant of Shu and Tefnut Ward 933									X			
<i>hm-ntr Hr</i> God's servant of Horus Ward 922										X		
<i>hm ntr Hr srk.ty</i> God's-servant of Horus of the Double Scorpion Ward 928									X			
<i>hry sšt3 m hw.t-ntr nt ...</i> Master of secrets in the temple of ... Ward 1032												X
<i>hry sšt3 n mdw-ntr</i> Master of secrets of the sacred writings Ward 1021										X		
<i>hry-tp i3.wt hw.t-ntr</i> Chief of temple offices Ward 1046												X
<i>hry-tp i3.wt hw.t-ntr P3ht</i> Chief of the temple offices of Pakhet Ward 1047										X		
<i>hry-tp 3 n M3-ḥd</i> Great chief of the Oryx Nome Ward 1055	X	X	X			X	X		X			
<i>hry-tp 3 n M3-ḥd mi kd.f</i> Great chief of the Oryx Nome in its entirety				X	X							
<i>hry-tp m in.t ntr.t</i> Chief in bringing the Goddess Ward 1049										X		
<i>hry-tp Nhḥ</i> Chief of Nekheb Ward 1074	X	X	X	X	X	X			X	X		
<i>hry-tp hry-ḥb.t</i> Chief lector Wb 3, 395.9; Ward 1076									X			
<i>hry-tp špsw-nswt nbw</i> Chief of all the nobles of the king Fischer 1082a										X		

Title	Occurrence in tomb											
	29	33	27	15	17	14	21	23	2	3	4	13
<i>hrp ns.ty</i> Controller of the two thrones Ward 1151									X			
<i>hrp hw.wt N.t</i> Controller of the estates of the Red Crown Ward 1159									X			
<i>hrp htpw-ntr m r-prw ntrw</i> <i>niw.t tn</i> Controller of divine offerings in the chapels of the gods of this city Ward 1165												X
<i>hry-hb.t</i> Lector Ward 1202							X			X		
<i>sm3 P3h.t</i> <i>sm3</i> -priest of Pakhet Ward 1289										X		
<i>sm3 Hr</i> <i>sm3</i> -priest of Horus Ward 1292										X		
<i>sm3y m hw.t N.t</i> Companion in the temple of the Red Crown Ward 1295									X			
<i>smr w^c.ty</i> Sole friend (of the king) Ward 1299	X	X	X	X	X	X		X	X	X		
<i>sm hrp šndy.t nb.t</i> Sem-controller of every kilt Ward 1176									X	X		
<i>s-hd hwt-ntr</i> Inspector of a temple Ward 1325												X
<i>sš nsw</i> Royal scribe Ward 1392												X
<i>sd3w.ty bi.ty</i> Sealer of the King of Lower Egypt Ward 1472	X	X	X	X	X	X		X	X	X		

Table 6.3: The titles of those buried in the upper necropolis, as recorded by Newberry (BH I, BH II). Where the titles also appear in Ward's index of administrative titles (1982), or Fischer's supplement (1985) these have been indicated beneath the translation of the title.

Title	Ward ref.	Occurrences in the shaft tombs
<i>imy-r pr</i> Overseer of the house	132	75, 128, 140, 163, 275, 564, 655, 707, 711,
<i>imy-r nww</i> Overseer of hunters	1299	61
<i>imy-r hw.t-ntr</i> Overseer of a temple	250	284, 294
<i>imy-r s.t</i> Overseer of a storehouse	313	47
<i>imy-r sd3w.t</i> Overseer of the treasury	364	186
<i>imy-r šnw.t</i> Overseer of a granary	384	393
<i>hw.ty</i> Warrior	618	16, 132, 135, 283,
<i>wꜥb</i> Priest	639	90
<i>nty n s3</i> Controller of a phyle	1299	81
<i>nb.t pr</i> Lady of the house	823	16, 23, 39, 43, 81, 85, 90, 94, 120, 134, 177, 181, 258, 263, 284. 293, 294, 487, 612, 777, 834, 863. 879,
<i>hm nsw</i> Servant of the king	896	800, 861
<i>hry-tp i3.wt hnty.wt</i> Chief of the principal offices	1048	886
<i>hk3 hw.t</i> Manager of an estate	1114	481
<i>hry-hb.t</i> Lector priest	1202	81
<i>swnw</i> Physician	1279	116
<i>smr wꜥ.ty</i> Sole friend	1299	1, 275, 481,
<i>šd hmw-ntr</i> Inspector of God's servants	1326	482

Table 6.4: *Titles of individuals buried in the lower necropolis at Beni Hasan and their occurrences in the shaft tombs, as published by Garstang (1907: 7-8). References to Ward's index of administrative titles (1982) is provided in the middle column.*

A division in responsibilities during the later phase of the Beni Hasan upper necropolis is visible in the distribution of titles, particularly from the two most decorated tombs, BH 2 and BH 3. This may reflect a physical division of the landscape of the nome that appears to be recorded in the autobiography of

Khnumhotep II [BH 3] during the time of his grandfather, Khnumhotep I [BH 14]

(BH I: pl.25, lines 28-26; for a full translation see Lloyd 1992: 22 [2b-2b1]):

*nsw.bity s:htp-ib-R^c s3 R^c Imn-m-ḥ3t di ḥnh dd wsr mi R^c dt.f
dit.f sw r iry-p't ḥ3ty-^c imy-r smy.wt i3bty.wt m Mn^c.t-Ḥwfw
s:mn n.f wd sm3 s:mnḥ mḥty mi pt
pšn n.f itrw 3 hr i3t.f m f i3bty n Dw.t-Ḥr r mn m smy.t i3bt.t*

The king of Upper and Lower Egypt, Sehetepibre, son of Re, Amenemhat (I),
given life, stability and power, like Re forever
He placed him (Khnumhotep I) as hereditary prince, high official, Overseer of
the Eastern Desert in Menat-Khufu,
establishing for him a southern stela, and making effective a northern one like
the sky,
separating for him the great river upon its back, from its east side to Horus
Mountain as far as the eastern desert.

However, the division of the nome as recorded here does not necessarily
indicate that the nome was physically split into two separate geographic entities. The
fact that both officials were buried in the same necropolis, used by their ancestors for
centuries, in tombs located alongside each other, points to the sharing of
responsibilities previously held by one individual. This division was made at the very
start of the 12th Dynasty by Amenemhat I as roles were divided between Khnumhotep
I and possibly Bakt III (see section 3.4.3). The quantity of new titles preserved in
tombs BH 2 and BH 3 can again be explained by the better preservation and
complexity of their decoration. However, it may also betray the complexity of social
organisation in this region during the mid-12th Dynasty which subsequently
culminates in the elimination of nomarchial families during the reign of Senwosret III
(Franke 1991: 51).

6.3.1 The Nomarch

The Nomarch, or *ḥry-tp 3 n MB-ḥd* (Great Chief of the Oryx Nome), was a title
descending from the earliest regional administration, as discussed in chapter 3

(Gestermann 1987: 155). The titles were often passed down from father to son, creating local ruling dynasties that oversaw the province on behalf of the central state administration. During times of strong, centralised rule, the loyalty to the king would have ensured that resources and wealth were channelled along the Nile to the ruling centre. However, during times of political fragmentation, such as the First Intermediate Period, these families were able to choose their allegiances and in some cases, by concentrating local production and distribution, became autonomous in their own right. Some families, such as the Nomarchs of Thebes, became very powerful and subsequently established royal dynasties by conquering or converting the provincial leaders around them (Bommas 2012b: 40-41). There is little indication that the ruling families of the Oryx Nome were powerful outside of their geographic area during the First Intermediate Period, but their control in one of the Nile Valley's most agriculturally fertile areas (Kanawati and Woods 2010: 8), as well as strategically important for access to limestone quarries (see section 4.2.1), may have meant that they possessed an advantageous position during the reunification of Egypt at the start of the Middle Kingdom.¹⁵

The first known Nomarch to have been buried at Beni Hasan is Bakt I [BH 29].¹⁶ It is possible that some of the undecorated type 1 tombs or even some shaft tombs belonged to earlier Nomarchs – although it would be impossible to know for certain (Kessler 1981: 131-132).¹⁷ It is probable, due to the finding of some Old

¹⁵ Kanawati and Woods have proposed that the Nomarch Bakt III allied with the Theban rulers of the 11th Dynasty, effectively securing the future of his family and position in the Oryx Nome (2010: 10). Though this impression is undoubtedly simplified, the families officiating in this region seem to continue from the First Intermediate Period through to the 12th Dynasty without any significant changes.

¹⁶ See section 3.4.3 for a discussion of the chronological arrangement of tombs at Beni Hasan.

¹⁷ Garstang records many Old Kingdom tombs around Beni Hasan, similar in architectural style and decoration to those at Nuerat and Zawiet Sultan, he believed that there was 'no gap between the date of these tombs at the close of the 6th Dynasty and the earlier portion of the main necropolis, which began to be freely used in the 11th Dynasty' (1907: 30-44). Orel similarly described Beni Hasan's earliest

Kingdom shaft tombs, that use of the lower necropolis began earlier than the upper necropolis and was perhaps the reason why the local rulers chose this site as their final resting place (Bommas 2012a: 52). Beni Hasan's current position, in a location at the far south of the Oyrx Nome high in the cliffs of the narrow east bank, provides unparalleled views over the region's fertile Nile Valley landscape. While to modern observers the beauty of the view may appear important, it may not have been for this reason that the site was selected by the ancient Egyptians. Rock tombs can be found throughout Middle Egypt, and had been popular since the Old Kingdom, as for example at Zawiet Sultan in the north of the Oryx Nome where a number of earlier rock-cut tombs were used by regional officials (see section 3.4.1). The decision to move the regional cemetery from Zawiet Sultan, outlined in chapter 5 to be located near the administrative and religious centre of Hebenu, south to Beni Hasan may best be explained by changes in the administration of the Nome. As demonstrated previously, connections between the regional officials and religious establishments of the Oryx and Hare Nomes (UE 16 and UE 15) are clear from later sources – notably in the sharing of titles that cover both of the areas. This likely indicates a later change in the borders of the regional areas, but may have implications reaching further back to the early 12th Dynasty. Mentions of Hebenu are conspicuously missing from early Beni Hasan tombs, which may indicate a waning in the importance of the northern centre of the nome. In chapter five, it was presented that Neferusi, Her-wer, and Menat-Khufu increased in significance during the 12th Dynasty, and this is reflected in the titles preserved in the Beni Hasan tombs (see table 6.3). However, it should also be remembered that Hebenu still features as the most prominent cultic location for the Nome on the White Chapel of Senwosret I whose reign coincides with the

lower necropolis shaft tombs as belonging 'to the successors of those buried in the tombs at Zawiyet el-Meitin' (1993: 485).

construction of the tomb of the nomarch Amenemhat [BH 2]. It is also to the north of the Oryx Nome that Khnumhotep II refers in his autobiography (Lloyd 1992: 22 [2bII]). Khnumhotep II himself was the son of Neheri, a nomarch in UE 18, and was only appointed to his position in the Oryx Nome through his mother's inheritance to his maternal grandfather's role (Redford 1967; Lloyd 1992: 22). Likewise, Senwosret II later appointed Khnumhotep II's son, Nakht, as ruler of the Cynopolite Nome (UE 17), the west bank north of the Oryx Nome (Lloyd 1992: 23). Thus the familial connections with the two northern border nomes are stronger during the lifetime of Khnumhotep II, than any indication of links with UE 15 to the south.

The nomarchy of Beni Hasan can be arranged genealogically, the title being handed down from father to son from Bakt I – Bakt II – Ramushenta – Bakt III – Khety I – Khety II. Amenemhat [BH 2], the final holder of the title, does not give details of his father. It is recorded however that his father held the title *imy-r mšꜥ wr n M3-ḥd*, Overseer of the soldiers of the Oryx Nome, like Amenemhat himself (BH I: 13). This, combined with the usual hereditary titles (such as *iry-p't ḥ3ty-ꜥ*), implies that Amenemhat inherited the position from his father, possibly Khety II [BH 18]. In his autobiography Amenemhat relates (Simpson 2003: 419):

‘I followed my lord when he sailed south to overthrow his enemies among the foreigners, for it was as the son of the count, royal sealbearer, great overseer of the soldiers of the Oryx Nome, as a man replacing my aged father, that I sailed south, through the favours of the royal house and the love of him in the palace.’

Amenemhat's involvement in Senwosret I's Nubian campaigns may be responsible for the dramatic changes seen in the architecture of BH 2. The Nomarch presumably spent some time in the royal court before returning to inherit his father's position in the Oryx Nome. A later mention in the autobiography may also refer to the future king Amenemhat II (Simpson 2003: 419):

‘It was with the hereditary prince, count, king’s eldest son Ameny, life, prosperity, health, that I sailed south, having sailed with 400 enlisted men from all the best of my army returning safely without any loss to them, I having brought back the gold assigned to me. I was praised for it in the royal house, and the king’s son thanked god for me.’

Amenemhat II would later be responsible for elevating Khnumhotep II to the position of Overseer of the Eastern Desert in the Oryx Nome. Increasing royal involvement in the administration of the provinces has been cited by Franke as the reason for the disappearance of the *hry-tp* ʕ3 title during the reign of Senwosret III (Franke 1991). Rather than a ‘forceful, conscious action [to] overcome the [...] nomarchs’ (1991: 51), Franke suggested that the halt to their power came through the king choosing not to appoint heirs and thus brought the provincial administration under the control of the central state throughout the reigns of Senwosret II to Senwosret III (1991: 55). The autobiographies of Amenemhat [BH 2] and Khnumhotep II [BH 3] suggest that Franke’s analysis is correct as no evidence of appointment to the nomarchy is available following the death of Amenemhat. Likewise, the autobiography of Khnumhotep II makes clear that the kings were actively appointing positions outside of the Oryx Nome to Khnumhotep’s sons – possibly in an effort to stop the dynastic strength of his family. One son, his eldest, was appointed ruler in the Cynopolite Nome (UE 17), but Khnumhotep expresses this explicitly as *hk3*, rather than *hry-tp* ʕ3 – implying that nomarchs were no longer being appointed (BH I: pl. 26, line 123). It is also apparent from the titles preserved on the façade of tomb BH 4 that Khnumhotep IV was not appointed to the role of Nomarch or Overseer of the Eastern Desert following the death of Khnumhotep II (see table 6.3).

Maitland has argued that the larger depictions of tombs owners, as well as the use of lighter paint tones, in relation to others shown in the tomb decoration served to demonstrate their higher social position and ability to control and manage local

resources (see figure 6.3; Maitland 2015: 122). This is the case in both the tombs of Nomarchs and Overseers of the Eastern Desert and differentiated their superior role within the ‘provincial elite worldview’ illustrated in the tombs (Maitland 2015: 210).



Figure 6.3: The Nomarch Khety from the north wall of his tomb [BH 17] shown larger than those depicted around him. His wife Khnumhotep stands behind him, while three pet dogs stand before him (BH II: pl. 14)

6.3.2 The Overseer of the Eastern Deserts

The unique title *imy-r smy.wt i3bty.wt* was first bestowed on Khnumhotep I by Amenemhat I at the very start of the 12th Dynasty.¹⁸ However, much of what is known about the title is only preserved in the autobiography of Khnumhotep II, and titles in the tombs of Nakht [BH 21] and Netchernakht [BH 23]. In the latter case, this tomb was decorated by Khnumhotep II and thus in only one instance does the title appear in a context not related to the owner of BH 3 (BH II: pl. 22a). There is however no clear

¹⁸ The only similar title known is ‘Overseer of the Western Desert’ held by Ahanakht in UE 15. The title is preserved in his tomb at El Bersha (tomb 5), *El Bersheh*, 31, pl. 13.

outline of what role the title holder played, and in what ways it related geographically to the area. Aufrère's (2002) analysis of the deserts of UE 15 and UE 16 outlined the physical connections that the region had with the desert plateau to the east. While the wadi of the Speos Artemidos (Batn El-Baqara) does not allow access to the eastern desert¹⁹ (Bickel and Chappaz 1988: 11), Aufrère listed a number of other access points. He focused on access to the eastern deserts through Wadi Tarfa, which enters the Nile Valley north of Sheikh Hasan, roughly 40km downstream of El Minya (Aufrère 2002: 210). This location is very distant from Beni Hasan (roughly 65km downstream), and gives little reason for the use of the title in the region of the Oryx Nome during the Middle Kingdom. Aufrère lists only one other viable access route, via Sheikh Mubarak, north-east of El-Minya. Again, this location is roughly 30km north of Beni Hasan and gives little indication why a settlement such as Hebenu, or even Mer-Nefret,²⁰ was not chosen as the residence of the Overseer of the Eastern Desert. The only conceivable route from the southern area of the Oryx Nome into the Eastern Desert could be through Wadi Mishag-gig which enters the Nile Valley in the bay north of Nuerat and continues eastwards towards the Wadi Qena system. Therefore, contrary to Aufrère's argument, it is evident that the Oryx Nome had little access to the eastern desert plateau or the Sinai land bridge during the Middle Kingdom, certainly no easier than access via other neighbouring east bank nomes.

¹⁹ Goedicke assumed that this wadi provided access to the eastern desert plateau and thus provided a route through which the delegation of Asiatics travelled before they were introduced to Khnumhotep II, as depicted on the north wall of BH 3 (1984: 204).

²⁰ Mer-Nefret is thought to be equated with the modern town of Tihna el-Gebel, known in classical times as Akoris (Redford 1967: 158-159), see chapter 3.



Figure 6.4: A satellite image of the UE15-UE18 showing the desert routes around the Oryx Nome. Adapted from descriptions by Aufrère (2002).

This issue raises a number of questions regarding the understanding of the Overseers of the Eastern Deserts. As covered in section 5.4, Menat-Khufu is sometimes thought of as the ‘capital’ of the Oryx Nome (Aufrère 2002: 211; Snape 2014: 154), but in fact the only mentions of it occur during the 12th Dynasty in

connections with the tombs of Beni Hasan and one isolated inscription in the Wadi Hammamat (BH I; BH II; Couyet and Montet 1912: 32; see section 5.4). Likewise, many inferences regarding the role of the Overseer of the Eastern Desert are taken from interpretations of a depiction showing a group of Asiatics in BH 3 (see section 6.5.9), and a number of officials' titles. Aufrère draws attention to two 'superintendents of the desert-land' named in BH 3 – 'Nakht, and Nakht's son, Nakht' (Aufrère 2002: 210). Closer inspection of the epigraphic publication and Newberry's list of officials indicates that Nakht's son was actually named Netcher-nakht, an interesting parallel to the order of officials as presented in chapter 3 and figure 3.14 (BH I: pl 30, 35). Actually, both characters appear in processional scenes of officials and offerings, neither appear engaging in any roles that could easily be associated with desert environments, such as hunting scenes or the arrival of the Asiatics. Their title, 'superintendent of the desert-land' (*imy-r smy.t*) was suggested by Newberry in his reading of the texts, and was likely influenced by the initial reading of the similar title, Overseer of the Eastern Deserts. However, Aufrère himself comments that it could be possible for *smy.wt* (deserts) to also have the meaning of 'necropolis', particularly one in a desert fringe area (Aufrère 2002: 207). In chapter 3 a chronological outline for the burial sites around the Oryx Nome was proposed indicating that it is possible that Beni Hasan and Balansura were in use at the same time, with the former remaining the official necropolis of the regional officials until the reign of Senwosret III. The extensive use of Beni Hasan, and the maintenance of 39 mortuary cults in the upper necropolis, as well as over 888 in the lower necropolis, perhaps entailed that some maintenance and direction was required. This role was originally bestowed upon the Nomarch, but was gradually appointed by the king to another official, resulting in two high ranking officials operating in the Oryx Nome

simultaneously. The first, the Nomarch, continued the usual administrative and religious activities within the province, while the second, the Overseer of the Eastern *Necropolis*,²¹ was given management of the cemeteries at Beni Hasan. As presented above, Leahy's translation of a 13th Dynasty stela from Abydos indicates the growing need to manage burial grounds, and to ensure that processional routes were maintained and kept clear. The autobiography of Khnumhotep II also records this role that he played in the region:

s:rwḏ.n.i rn n it.i s:mnḥ.n.i ḥw.t-k3 iry šms.n.i twt.i r ḥw.t-ntr

I caused the name of my forefathers to endure. I caused to be efficient the *ka* chapels thereof. I accompanied my statue to the temple.²²

Khnumhotep II's role in overseeing the completion of ancestor tombs such as that of Netchernakht [BH 23]) may also have been part of his official role. The two roles of Nomarch and Overseer of the Eastern *Necropolis* were also further divided in their religious roles, as will be discussed below.

An inscription recently discovered at the mastaba of Khnumhotep (III) at Dahshur however complicates the interpretation of the broader role of the Overseer of the Eastern Desert family. Franke demonstrated that Khnumhotep, vizier of Senwosret III, was most likely the son of Khnumhotep II of the Oryx Nome (1991). His appointment to the royal court by Senwosret II and subsequent career under Senwosret III reflects the steady decline in power and influence of the regional ruling families (Franke 1991: 63). An inscription, translated by Allen, indicates that

²¹ Although it is suggested here that a translation of *imy-r smy.wt i3bty.wt* as Overseer of the Eastern Necropolis may be more appropriate based on the roles outlined, the usual translation of Overseer of the Eastern Deserts will be maintained for consistency in this thesis.

²² The transport of statues to the temple, and subsequent offerings being made may be a textual reference to the scenes discussed in section 6.5.8. These processions are usually accompanied by the *ib3* dance which Darnell suggests is 'attested for song and praise' (1995: 78-79). The pose consists of someone extending their arm and bending their hand which occurs in many of the dance scenes in the tombs of Beni Hasan and perhaps entail that they are ritual in nature and were also accompanied by songs, or hymns of praise for the deceased.

Khnumhotep III's role at the royal court was also connected with trade and military action in the east (2008: 37-38). In this case, the region related is further north, along the Levantine coast – supporting Aufrère's conclusion that Khnumhotep III was a 'customs officer' for the royal residence (2002: 212). Kamrin sees the roles of the two men (Khnumhotep II and III) as recording a family connection with activities in the eastern desert (2009: 23), and as such the role of the Overseers of the Eastern Desert may not have been just of local interest. However, evidence of broader activities of those officials buried at Beni Hasan is not forthcoming, and as such any firm conclusions regarding their roles cannot be made.

6.4 Religion and folklore: The enculturation of a natural environment

As can be seen in table 6.3, titles relating specifically to religious roles held by earlier nomarchs are particularly lacking within the Beni Hasan tombs, but an analysis of those held by Amenemhat [BH 2] indicates that the majority of religious roles recorded were retained by this nomarch in the later phases of Beni Hasan. It may be that the scenes painted onto the tomb walls were symbolic enough to indicate the religious roles exercised by tomb owners, although more explicit roles are often given to the wives of nomarchs (see below). Table 6.5 lists the occurrence of cults and deities mentioned within the 12 inscribed tombs of the upper necropolis, whether in titles or captions relating to activities. Many of those listed are local deities worshipped in cult centres within the nome, while some relate to state cults and may imply greater contact with ideologies promoted by the royal court. Omitted from the table are mentions of Osiris and Anubis, as they appear in their roles as funerary deities within offering formulae – similar to the inscriptions found regularly in the lower necropolis (Garstang 1907: 188-193).

Horus features prominently in the tombs of Beni Hasan; however, conspicuous by its absence in many of the tombs is the cult of Horus of Hebenu. It would appear that Hebenu had ceased to be a centre of administration by the Middle Kingdom although its religious significance was certainly retained, as mentioned above, due to its mention in the White Chapel of Senwosret I (Lacau and Chevrier 1956: pl. 3). A unique cult of Horus smiter of the rekhyt is mentioned most frequently in the Beni Hasan tombs and this may relate to the aforementioned myth of Horus in which he slaughtered enemies of the sun-god on the riverbank of Hebenu (Fairman 1935: 30). It is possible that the cult of Horus smiter of the rekhyt was originally established in the settlement of Hebenu but that changes in the natural environment (chapter 4) and relocation of centres of administration (chapter 5) may have forced the cult of Horus to be moved from Hebenu and maintained without a geographic epithet. Horus of Hebenu appears later in the Beni Hasan tomb sequence, but this may be due to tradition or because Hebenu was once again inhabited and re-emerged as a local cult centre. It is notable that the cult appears in the tomb of Amenemhat [BH 2], which is contemporary with the construction of the White Chapel of Senwosret I at Karnak. Hebenu certainly appears to be a notable cult centre during the New Kingdom, and continued to be a locally important settlement into the Roman Period, around the escarpment of Zawiet Sultan.

Deity/Cult reference	Occurrence in tomb											
	29	33	27	15	17	14	21	23	2	3	4	13
<i>P3ht nb.t Srt</i> Pakhet, Lady of the Seret wadi									X	X		X
<i>Hwt-Hr m ʿryt</i> Hathor in Aryt								X		X		
<i>Hwt-Hr nb.t Nfrwsi</i> Hathor, Lady of Neferusi				X	X	X			X			
<i>Hwt-Hr nb.t Nfrwsi hn.wt t3.wy</i> Hathor, Lady of Neferusi, Mistress of the Two Lands									X			
<i>Hwt-Hr nb.t Nhn-bw</i> Hathor Lady of Nekhen-Bu						X			X			
<i>Hr hw.ty rhy.t</i> Horus, smiter of the rekhyt	X	X		X	X	X			X	X		
<i>Hr hn.ty Hbnw</i> Horus foremost of Hebenu						X			X			
<i>Hr srk.ty</i> Horus of the two scorpions									X			
<i>hry-tp s:htp Psdt imy Hr-wr</i> Chief of pleasing the Ennead in Her-wer						X						
<i>Hkt Hr-wr</i> Hekat of Her-wer				X	X	X						
<i>Hnm</i> Khnum		X										?
<i>Hnm nb ʿB-dbt</i> Khnum Lord of Aa-debt									X			
<i>Hnm nb Nhn-bnit</i> Khnum Lord of Nekhen-Benet						X						
<i>Hnm nb Hr-wr</i> Khnum, Lord of Her-wer	X		X	X	X				X			
<i>Sht nb.t hb</i> Sekhet, Lady of fishing and fowling					X					X		
<i>Šw</i> Shu									X			
<i>Gb</i> Geb										X		
<i>Tfn.t</i> Tefnut									X			

Table 6.5: *Cults mentioned in the upper necropolis tomb chapels of Beni Hasan as recorded by Newberry (BH I and II).*

The naming of a locality as *Dw.t Hr*, ‘Horus-Mountain’, in the autobiography of Khnumhotep II is also likely to be associated with the ancient myth of Horus and his defeat of enemies on the bank of Hebenu, as discussed in section 3.1 (Fairman 1935: 30). Kessler located *Dw.t Hr* in the vicinity of Zawiet Sultan on the east bank

(1981: 335). The association of Hebenu with a cult of Horus would support Kessler's suggestion. In this case, it is possible that *Dw.t Hr* should be equated specifically with the promontory above Zawiet Sultan into which the early rock-cut tombs were carved. This kind of naming of geographic features is also witnessed at other locations, such as 'Anubis-Mountain' at Abydos near the mortuary enclosure of Senwosret III (Wegner and Muhammed 2006: 427; Wegner 2007b). The naming of natural features in the landscape, and association with local mythology is not unusual and can play an important role in constructing local identity and awareness of surroundings (Tilley 1994: 18; Richards 1999). By creating a physical marker of the myth of Horus, the tradition and cult became intertwined with the local environment. Use of the natural environment, as already exemplified in chapter 5, and establishing settlements or monuments, can have great symbolic meaning. Therefore, the presence of *Dw.t Hr* in the Oryx Nome serves as a reminder of the ways in which the natural features of an area become intertwined with the cultural landscape through interpretation and appropriation of them into local beliefs and ideologies. Another example of this practice in the Oryx Nome is the location of Hatshepsut's rock-cut speos temple in the cliffs of the Wadi Batn el-Baqara (Speos Artemidos) which likely replaced an earlier Middle Kingdom structure dedicated to the goddess Pakhet (Gomaà 1982: 640-641; Bickel and Chappaz 1988: 11). This lioness goddess, a form of the goddess Hathor, was associated with the desert and the myth of the wandering solar eye. In locating the temple in a wadi mouth the Egyptians were able to offer her access back to the Nile Valley and a locality in which to placate her and aid her transformation back into Hathor. Sanctuaries and rituals of this kind were certainly not reserved for the Oryx Nome, but celebrated across much of Egypt (Darnell 1995; see also the current research of Garnett in the region of El-Kab; Garnett 2013), and perhaps served to

spread a state promoted theology. The goddess Pakhet is only attested in BH 2 and BH 3, where the titles of family members also reflect this growing cult, as indicated in table 6.6:

Title	Ward reference
<i>ḥm.t-ntr P3ḥt</i> Priestess of Pakhet	945
<i>ḥm.t-ntr P3ḥt nb.t Srt</i> Priestess of Pakhet, Mistress of the Seret Wadi	946
<i>ḥm.t-ntr Ḥwt-Ḥr</i> Priestess of Hathor	948
<i>ḥm.t-ntr Ḥwt-Ḥr m ʕry.t m s.wt nb.wt</i> Priestess of Hathor in Aryt and in All Places	949
<i>ḥm.t-ntr Ḥwt-Ḥr [nb.t ʕr]y.t</i> Priestess of Hathor, [Mistress of Ar]yt	951
<i>ḥm.t-ntr Ḥwt-Ḥr nb.t Nfrw.sy ḥm.t t3.wy</i> Priestess of Hathor, Mistress of Neferusi and Mistress of the Two Lands	953

Table 6.6: Priestess titles as preserved in the upper necropolis tombs of Beni Hasan.

Depictions of griffin in the tombs of Beni Hasan (tombs BH 15, 17, and 3) may also relate to the myth of the distant goddess. Griffins and monkeys were both involved in praising the goddess on her arrival in Punt, as both animals are ‘capable of bridging the space between this world and the next’ (Darnell 1995: 79). However, monkeys and griffins do not appear in the same scenes together, or even in the same tombs at Beni Hasan.²³ Although the frequency of mentions is not noted in table 6.5, the cult of Pakhet features much more often in the tomb of Khnumhotep II than that of Amenemhat. This may indicate that the family of Overseers of the Eastern Desert was more actively involved in the cult which was located on the eastern desert fringes. It is also notable that a cemetery was also found in the wadi mouth, around the Speos Artemidos. Many of these tombs date to later periods of Egyptian history (Garstang 1907: 200-210; Bickel and Chappaz 1988: 11) – but they have not been systematically

²³ This topic is currently undergoing further research by Dr Lisa Sabahy from The American University in Cairo. An outline of her research was delivered at Company of Images conference (18-20th September 2014) entitled, ‘The Middle Bronze Age Egyptian Griffon: Whence and Whither?’

investigated so far. A stela of Tuthmosis III is also located at the far eastern end of the Wadi Batn el-Baqara indicating further royal attention in this region following the expulsion of the Hyksos (Fakhry 1939).

Hathor appears as the focus for a number of cults within the Oryx Nome during the Middle Kingdom and was already mentioned since the Old Kingdom at Zawiet Sultan (see source 5.3.a). While explicit mentions are recorded in table 6.5, Kamrin also links the fowling scenes in BH 3 with the goddess Hathor, including some sexual overtones and ritual actions that connect ‘shaking the stalk’ during fowling activities with the sistrum players in Hathoric cults (1999: 108). However, the caption for the fishing and fowling scenes only makes reference to Sekhet, Lady of fishing and fowling, while the local cult of Hathor, Lady of Neferusi is not mentioned in the tomb at all.²⁴ It is conspicuous that such Hathoric undertones repeat themselves in the fishing and fowling scenes of BH 3 and yet Khnumhotep must not have held any significant role within the cult of Hathor at Neferusi (see section 5.3). However, Khnumhotep II’s wife, Khety, is given the titles Priestess of Pakhet and Priestess of Hathor. In the latter case this title often refers to a cult in Aryt²⁵ one that is mentioned frequently in BH 2 and BH 3. The roles connected to the traditional religious institutions in the Oryx Nome were therefore retained by Amenemhat, while Khnumhotep seems to have placed greater emphasis on his role in the cult of Pakhet, Mistress of the Seret wadi (Batn el-Baqara), and Hathor in Aryt.

²⁴ Sekhet is connected to the iconography of Hathor and is later equated with the goddess (Guglielmi 1984: 778). However, Sekhet only appears in BH 17 and BH 3 at Beni Hasan. In the former, a cult of Hathor, Lady of Neferusi is also mentioned, indicating that a mention of Sekhet in BH 3 cannot simply stand in place of the cult of Hathor in Neferusi.

²⁵ Aryt is an unlocated settlement in the Oryx Nome, and may relate to a settlement or specific locality – such as a marsh, grove, or wadi area. It only appears in names or titles which has prompted Grieshammer to theorise that it is only a name and not an identifiable physical locality (Grieshammer 1975: 454-455; Gomaà 1986: 324).

Khnum, and his consort Hekat, are mentioned frequently in the tombs of Beni Hasan and their cult locations in Her-wer and Neferusi appear to be the religious centres of the Oryx Nome during the 12th Dynasty. Titles relating to the cult of Khnum also appear in the tombs of Beni Hasan indicating that it was one of the most active establishments in the region. Wainwright's (1933) study of a scene on the pylon of Amenemhat II from Hermopolis shows that Khnum (or an equivalent ram-headed deity) was well established across Middle Egypt by the 12th Dynasty. Wainwright also equated this popularity to the connection of Khufu with the settlement of Menat-Khufu in the Oryx Nome, and his subsequent taking of the name *Hwfw-Hnm* (1933: 160). Khnum's cult at Her-wer continued into the Greco-Roman Period with priests being located, after the Middle Kingdom, in the Hare Nome (UE 15).

The growing number of cults in the Oryx Nome is also documented in the lesser known autobiography of Khnumhotep I [BH 14]. In this short inscription is recorded the title *hry-tp s:htp Psdt imy.t Hr-wr*, 'chief who pacifies the Ennead which is in Her-wer' (BH I: pl. 44, line 1). This phrase may relate to the establishment of a cult in Her-wer dedicated to the nine-gods of the Ennead. It is perhaps significant that (with the exception of Osiris) the only mentions of gods relating to the Ennead are found in BH 2 and BH 3, both following the inscription of BH 14. Greater awareness and attention placed on state religion, either through solar mythology or creation myths may be indicative of growing royal or state influence over the region, which is equally expressed in the autobiographies of Amenemhat and Khnumhotep II, and gives greater confidence to Franke's proposed 'decline of the nomarchs' (1991).

6.5 Living in the land

The evidence covered so far has utilised the titles and inscriptions present in the tombs of the upper necropolis to give an understanding of the roles of the highest officials in the Oryx Nome during the Middle Kingdom. However, by utilising specific motifs and scenes presented in the same tombs, together with the tomb goods deposited in the lower necropolis it is possible to gain an impression of the activities the broader local society were involved in. Seidlmayer has termed this society ‘rural’, though modern definitions of these zones are often not applicable to Ancient Egypt because of the physical challenges apparent in the organisation of the Nile Valley as outlined in chapter 4.

It is not the aim here to cover all the scenes presented in table 6.1, as much has already been written about these by Shedid (1994), Kamrin (1999), Kanawati (2001), Rabehl (2006), and Kanawati and Woods (2010), among others. Here some general remarks will be made about the connections between these scenes and the findings from the lower necropolis, as well as some points omitted from previous discussions.

6.5.1 Agriculture

Agriculture was the main occupation of the majority of Nile Valley inhabitants, and remains one of the main sources of income in Egypt today. The annual cycle of flooding in the Nile Valley dictated the schedule of ploughing, sowing, and harvesting for millennia – and likewise, influenced the entire yearly cycle of the Egyptian calendar. The festivals mentioned in the tomb of Khnumhotep II (BH I: 53-54), as well as those listed on the coffin of Maa in tomb 500 of the lower necropolis (Garstang 1907: 192-193, pl. 9) were all organised within an essentially agricultural calendar. The impact of natural processes on the calendar and lifestyles of floodplain

inhabitants is quite clear from inscriptional evidence, such as the autobiography of Amenemhat discussed in chapter 4.

Scenes of agricultural activities occur most frequently in tombs BH 17, 2, and 3, although agricultural produce can be seen in a number of offering scenes, including offering tables, and processions of domesticated animals. While symbolically ensuring that the deceased would be supplied with food in the afterlife (Weeks 1979: 62), these scenes clearly represent the daily activities for many workers in the Oryx Nome (Kamrin 1999: 72-73). In BH 2 and 3 the scenes appear on the western wall of the tomb chapels, perhaps indicating a geographical proximity to where the action took place – the floodplain. Many of the surrounding scenes of the walls represent secondary production of agricultural goods which may add a second level of meaning to the agricultural scenes. Without the farm produce eternally supplied, the subsequent activities (such as linen production, baking, brewing, and feeding animals) could not continue and thus supplies would cease for the cult.

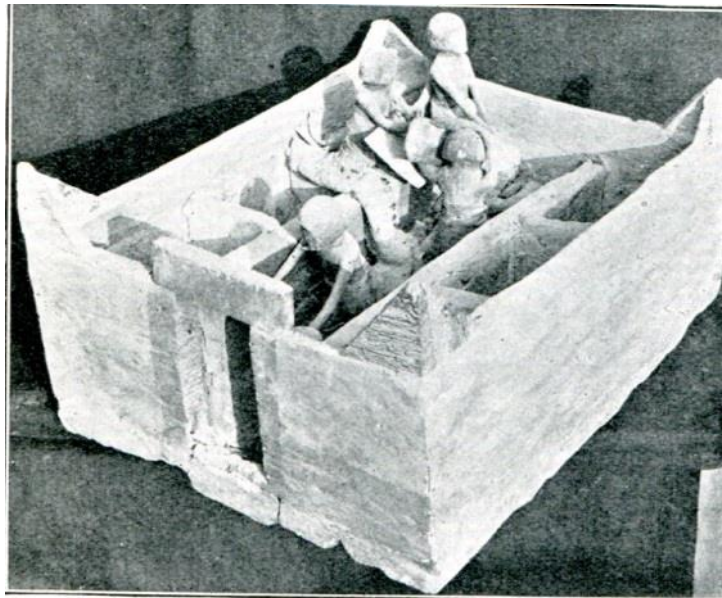


Figure 6.5a: A granary model found by Garstang in tomb 186 of the lower necropolis (1907: 87, fig. 76). The building is unroofed with pointed tips at the edge of each of the four walls. A scribe takes notes from the top of a staircase leading to the open grain silos which are being filled by farm workers.

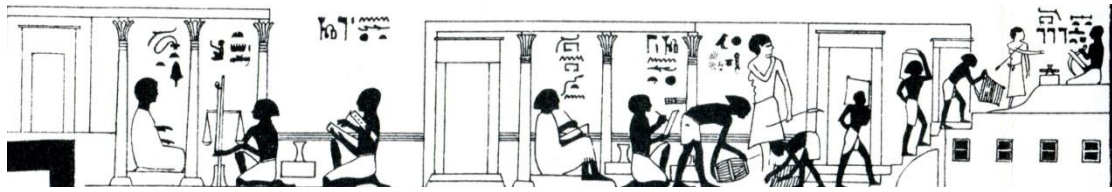


Figure 6.5b: A wall scene from the tomb of Khnumhotep II showing workers filling a granary (BH I: pl. 29)

Tomb models in the lower necropolis do not often depict agricultural work,²⁶ although granaries were found in 100% of the undisturbed tombs. It is probable that these models carry the same symbolic meaning as the scenes of granaries, and agricultural production as can be seen in BH 2 and 3. The granary models are very similar to the scenes found in the upper necropolis, i.e. a scribe recording the incoming produce, while farm workers take the grain to the roof and deposit their produce in the silos beneath. The storage of the produce in granaries reflects the culmination of agricultural labour and thus represents the prior scenes enough to ensure the eternal supply of food in the afterlife. Some examples of agricultural implements were found in the lower necropolis. In tomb shafts 121 and 761 Garstang found blades of wooden hoes, while two winnowing fans were found in shaft 30 (1907: shafts 121 – 217, fig. 122; tombs 761 – 238; shafts 30 – 212, fig. 122). Although not comparable to those scenes in tombs BH 2 and BH 3, these implements would have symbolised the agricultural activities or crafts that they would have been employed in.

6.5.2 Food preparation

Food preparation also features in tomb scenes, again most clearly in BH 2 and 3.

These scenes reflect the production of foods supplied from other scenes, either

²⁶ One possible example of agricultural work depicted in a wooden model was found in tomb 275 (listed in table 6.2; Garstang 1907: 131, fig. 129), showing men engaged in tilling soil. However, a third man appears to be shaping mud-bricks, and so this scene may in fact depict three men producing bricks (Tooley 1995: 45, fig. 43).

focused on agriculture (see 6.5.1) or hunting (see 6.5.5). It is likely that they would serve the same purpose as those scenes discussed above in which food was produced, and would ensure the continued supply of food in the afterlife for the deceased.

Models of baking, brewing, and also butchery (see below) were included in many of the tombs of the lower necropolis. Their interdependence is reflected in the combined scenes whereby two, or occasionally three, activities are depicted in the same model (see table 6.2). Bread production depended on the supply of wheat and barley from the farmers, whereas, Egyptian brewers utilised the barley bread to produce beer – both of which were staples of the Egyptian diet (Tooley 1995: 28, 31). It is not so clear why butchery scenes should be combined, but it is likely that these kitchens, if this term is appropriate, would have had people skilled in food production and thus capable of butchery too.²⁷



Figure 6.6: EA41576, a combined model showing baking, brewing, and butchery from shaft 723 in the lower necropolis. © The Trustees of the British Museum.

²⁷ Another consideration for the combination of scenes may relate to the economic benefit of creating just one model over manufacturing three of them.

The finished produce, food and drink, was also likely included in the tomb assemblages but have not survived. The presence of ceramics in most of the tombs is probably all that preserves this ritual as the ceramics are of a funerary nature and not domestic, entailing that their use was only for the funerary cult (Bourriau 1981; Orel 1993). Many of the tombs in the lower necropolis, as mentioned above, contained remains of sacrificed ox (Garstang 1907: 62, 68, 83, 99 and 105-106).²⁸ This reflects the butchered animals utilised in the final burial rites, represented by models in the lower necropolis and processional and slaughter scenes in the upper necropolis.

Further indication of the importance of food provision in the Nile Valley is given in the autobiography of Amenemhat [BH 2] where he states (BH I: 27; pl. 8, lines 19-21):²⁹

(When) years of hunger came into being, I stood up and ploughed all the fields of the Oryx Nome to its southern and northern boundaries so that its inhabitants could live, so that its food could be made. Not a hungry man or woman came into being therein it. I gave to the widow the same as to the married woman and I did not make a distinction between an elder or child in all that I gave. Then great Niles occurred possessing barley and wheat and all things (but) I did not exact arrears from land-tax.

This extract may reflect the reason for the inclusion of so many agricultural scenes in BH 2, to provide not only for the cult of the nomarch himself, but also for those interred beneath him in the lower necropolis. This implication would transform the mortuary chapel into a destination for communal memory and experience within the shared cultural landscape.

²⁸ Occasionally other animals, apart from ox, were sacrificed for the tombs. In tomb 877 Garstang discovered an oryx horn – an animal which is also frequently seen in processions of animals in the upper necropolis tombs (Garstang 1907: 243; BH I: pl. 17, 30).

²⁹ See section 4.2.3 for a translation of this text.

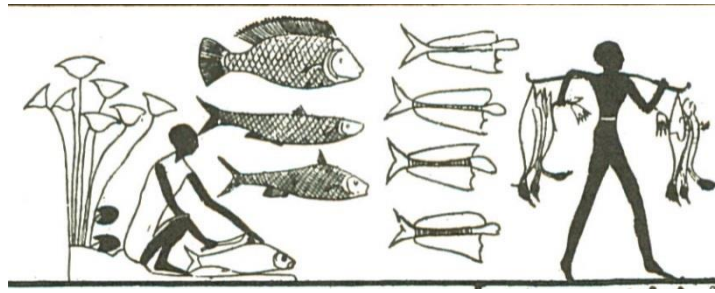


Figure 6.7: *A scene of drying fish from the tomb of Amenemhat in the upper necropolis (BHI: pl. 12).*

Scenes of drying fish can be found in three of the upper necropolis tombs, and it is clear that fish were a significant part of the Egyptian diet (Moreno Garcia 2011: 4). Numerous fish hooks were found at Gurob (Petrie 1891: Pl. 21), as well as net sinkers discovered at Buhen (Emery 1979: pl. 103). However, as Kamrin notes, fish do not appear on any of the offering tables as part of the eternal offerings at Beni Hasan and instead suggests that the fish were perhaps intended for the servants or pets of the deceased (1999: 76). In Bandy's discussion of fish and fishing scenes in Middle Egypt she considered them as evidence of 'adaptation and adoption' of scenes in Old Kingdom tombs from the Memphite area (2008: 1598). The scene depicted in figure 6.7 is the only one retaining the typical papyrus backdrop (Bandy 2008: 1596) though it is possible that here is seen the reality of daily life – that fishing was an important element of the local diet, but perhaps not felt necessary, or perhaps appropriate, to depict within offering scenes. This scene clearly illustrates that this activity occurred *within* a landscape, close to water channels where aquatic plants were growing. Those employed within fishing activities would therefore be required to reside within a close proximity to this resource and may give an indication to which settlements became centres of certain trades. In considering Angenot's discussion of 'typicality' in semiotic thought, it could be argued that the choice to depict certain species of fish shown actually indicates all kinds of fish or a multitude of fish (2015: 102-103),

indicating that fish was perhaps an important element in the Egyptian diet. These scenes likely also contain symbolic aspects and Maitland has suggested that they exhibit the deceased's control over nature (2015: 174) as well as including a comedic element in its portrayal of fishermen as poor and often infirmed (130) thus reaffirming the physical fitness and social position of the tomb owner.

6.5.3 Animal husbandry

Scenes relating to animal husbandry and pets appear in both tomb scenes and in tomb models. The latter are restricted to scenes of men leading cattle, or in some cases feeding them (Garstang 1907: figs. 48 and 123). In chapter 3, the scene from the north wall of the main chamber in BH 3 depicting oryx being fed was discussed (see figure 3.2). Kamrin believed that all of these animal husbandry scenes took place in the floodplain (1999: 81). Her analysis of geographical location using tomb scenes is therefore slightly dubious in areas when the same scenes appear on different walls in other Beni Hasan tombs, while her conclusions of yearly dates is tied to the agricultural calendar discussed in chapter 4.



Figure 6.8: *A scene of force feeding animals on the north wall of the main chamber in the tomb of Khnumhotep II (BH I: pl. 30).*

Some of the more dramatic scenes of the Beni Hasan tombs are those showing two fighting bulls. These scenes appear regularly in the tombs and can be interpreted a number of ways. Kanawati proposed that they may be viewed as scenes of bulls trying

to win a cow, or instigated by herdsman hoping to breed the strongest bull, or else for the amusement of spectators (2001: 90). Kamrin considered these scenes to reflect the selection of a strong bull for breeding purposes which would entail healthy animals for the perpetual cult of the deceased (1999: 100-101). Galán's discussion of these scenes, found in a variety of Middle Egyptian tombs, proposed that they are a metaphor for the deceased's right to rule in the afterlife. By defeating a rival bull, the tomb owner (in the form of a bull) demonstrated his right to rule eternally (Galán 1994: 93). The virility of the bull is also symbolised and is supported by scenes of copulating cattle which are often located close to these scenes.³⁰ There is also one example of bull leaping, in which a man jumps between the horns of a large trussed bull, in the tomb of Bakt I [29], figure 6.10.³¹ As this scene appears around other motifs of animal husbandry it seems reasonable to conclude that it was a sport enjoyed by those engaging in animal care.³²

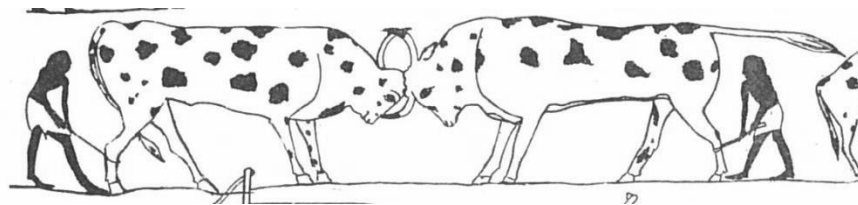


Figure 6.9: Bulls fighting on the west wall (south side) in the tomb of Khety I [BH 17] (BH II: pl. 12).

Domesticated animals used as pets, such as cats, monkeys and dogs, appear regularly in the tombs and are always located close to the owner of the tomb. In this way it would appear a personal desire for the pets to join the deceased in the afterlife.

³⁰ Galán also mentions the closeness of bull fighting scenes, with scenes of animals eating from a tree in a number of other tombs (Galán 1994: 84-87), this only correlates with tombs BH 29 and BH 17 at Beni Hasan, see table 6.1.

³¹ A similar scene appears in tomb 2 at Meir (*Meir* II: pl. 4).

³² The scene depicted in figure 6.10 may show a similar sport to the Minoan frescoes discovered at Tell el-Dab'a and could be an early version of this motif (Bietak 1992: 27).

Pet dogs are also often seen in the desert hunt attacking animals or assisting the tomb owner, as will be discussed below (see figures 6.3 and 6.12).

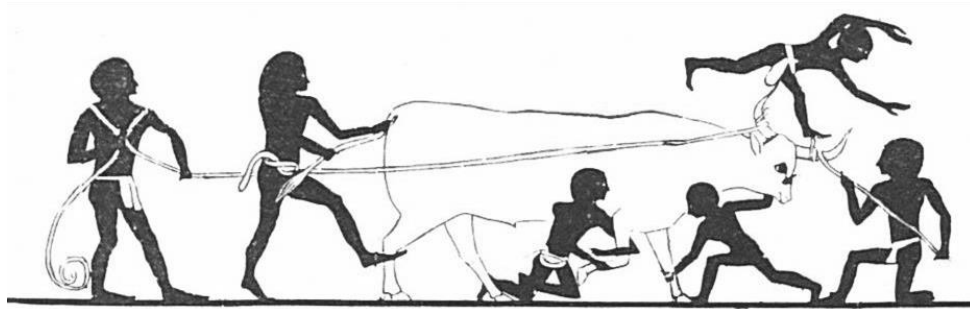


Figure 6.10: *A unique scene at Beni Hasan of bull leaping from the south wall (eastern half) in the tomb of Bakt I [BH 29] (BH II: pl. 31).*

6.5.4 Mythical animals

Discussion of griffins above has already alluded to that creature's involvement in the myth of the wandering goddess, however, other mythical creatures also occur in tombs BH 15 and 17. In both instances they appear together on the north wall of the tomb chapel as part of the desert hunt scene. This is unsurprising, in that the wandering goddess returns to the Nile Valley from the desert, but raises questions regarding the realistic nature of the scenes depicted in the tombs. The desert is clearly seen as a realm of unknowing, and potential chaos reflecting Tuan's thoughts about the distinction between space and place (as discussed in section 2.3). The unknown of the desert provoked imagination of mythical creatures which when welcomed into the floodplain, the realm of daily life, became tamed and acculturated, as indicated by the presence of a controlled tame griffin in the tomb of Khety wearing a collar and leash (McDonald 2007: 32). A griffin also appears in the tomb of Ahanakht at El Bersha where it is again accompanied by other mythical creatures (*El Bersheh* II: 34-35, pl. 16). In this instance the animals are arranged into registers before the entrance to the inner chamber. It is unclear how this scene fits into the overall decoration of the tomb and in particular the discussion regarding chaotic elements in the desert discussed

above. Richards presented that the depiction of desert scenes within tombs constituted the symbolic vanquishing of the chaos of these areas (1999: 88). This consideration correlates with the wild, unknowingness of the desert until it is brought within the cultural world of Egypt – and in this case, the floodplain itself. The ability to transform unfamiliar spaces into place through enculturation has already been discussed in section 6.4 above. McDonald’s discussion of the griffin within the context of Sethian metaphors, such as the accompanying Seth-animal in the procession of mythical desert animals, also sees the scenes as reflecting the deceased’s control of order over the chaos of foreign and peripheral areas, such as the deserts (2007: 32).



Figure 6.11: A procession of mythical animals in the tomb of Khety (image by author).

6.5.5 Hunting, fishing, and fowling

It is noticeable that desert hunting scenes are only ever visible on the north wall of the chambers and are among the most popular choice for decoration. The Egyptian worldview entailed that geographic symbolism and proximity was often taken into account when adorning spaces. For example, depictions of heraldic plants were often oriented to their geographically potent areas, or sailing and rowing boats aligned facing south or north respectively (such as tomb shaft 275 at Beni Hasan, Tooley

1995: 52; and BH 2 and 3 as discussed below). The consistency of desert hunts depicted on the north wall may be indication that these activities directly related to, or perhaps took place in, an area north of the necropolis. Earlier tombs often show a large net strung across the desert which the hunters use to trap the animals. These animals may have been caught for use in sacrificial ceremonies, or domesticated for use in the valley cultivation. While elite hunting must have occurred in the eastern deserts, perhaps utilising the natural wadis and high cliffs, the scenes presented in the tombs also communicate a symbolic realm. Angenot has demonstrated the ‘necessity to go past the literal meaning’ in order to consider underlying meanings within the tomb scenes (2015: 109). While it is possible to interpret the tomb owners control over nature portrayed within these scenes, Kamrin has also noted undertones of fertility, exhibited by animals birthing or copulating within the hunt, as well as solar connotations visible with regard to the myth of the distant goddess (1999: 86-87). When mythical animals (see 6.5.4 above) are shown in tombs, it is most frequently within the desert hunt and they appear unharmed by the hunters (Darnell 1995). Kamrin has therefore associated the desert hunts with the tomb owners’ assumption of the role of the sun god in ensuring the safe return to the Nile Valley of the wandering eye, and likewise the continuing cycle of the sun’s journey through the sky (1999: 83-89). As discussed above, the evidence of a cult to the lioness goddess Pakhet located in the Wadi Batn el-Baqara to the south of Beni Hasan gives greater confidence to this theory. It is also possible to see in the depiction of the desert hunt the theme of maintenance of order. A motif frequently included in the hunt is that of a lion or lioness bringing down a gazelle or ibex, something that could represent the symbolic maintenance of *maat* over the chaotic desert animals.



Figure 6.12: Motif from the north wall of the main chamber in the tomb of Khnumhotep II [BH 3] showing the archer (in this case his son, Khnumhotep) aiming at a large bull behind a tree, a dog waits to pounce behind Khnumhotep (BH I: pl. 30).

Another specific motif copied from one tomb to another deserves mention here. Within the desert hunt the tomb owner, or one of his attendants, is often accompanied by a dog (possibly a pet), and is disguised behind a tree, shooting down a bull (figure 6.12). This motif appears in four of the desert hunts listed in table 6.1, and while perhaps no further reading can be made of this motif, it can give greater description of the environment of the hunt. The desert wadis at this time, as discussed in chapter 4, were likely covered in light vegetation, allowing some fauna to live there, and in this case also allowing the hunter to be hidden during the hunt. Utilising the natural benefits of the wadi environment, trees for shade and disguise, and tall cliffs to trap the game behind nets, allowed the pursuit to be controlled and give greatest advantage to the hunters.

Like the desert hunts a similar meaning of control and order over nature can be interpreted from the fishing and fowling scenes which also appear frequently on the north or west walls in the Beni Hasan tombs (Kamrin 1999: 108-109; Maitland 2015: 174). It was suggested by Burn (2013), that during times of low floods (or when the river is lowest) animals gather in the fertile marshland areas at the edges of the river valley. In these areas of high fauna concentration hunting would be most successful, and this may be why these environments are chosen for tomb decoration to convey the

abundance of the valley and the plenitude of flora and fauna around. Only tomb owners are shown fowling using throw sticks in the upper necropolis tombs, although throw sticks were also found in tomb shaft 287 in the lower necropolis, indicating that this activity may not have been reserved only for the highest elite (Garstang 1907: 222, fig. 166; one throw stick is now kept at the National Museum Scotland, A.1914.70). While the activity clearly happened within the local area, the scene may again behold symbolic meaning. As well as presenting the tomb owners control over nature (Maitland 2015: 174), Angenot has also argued that these scenes metaphorically present elements of sexuality, vitality, and recreation (2015: 111). This symbolism is reinforced by the frequent addition of the tomb owner's spouse within the scene, as shown in figure 6.13. Fishing scenes in which the tomb owner spears or nets the fish, are considered by Bandy as a continuation and development of scenes that can already be found during the Old Kingdom around Memphis (2008: 1596-1598).



Figure 6.13:
Khnumhotep II
fowling with a
throwstick on the east
wall of his tomb (BH
I: pl. 32).

6.5.6 Crafts

Much has previously been written about crafts and their depictions in tomb scenes,³³ but a general view of the activities depicted in the Beni Hasan tombs can be included here. The tombs give a comprehensive view of workshop production in provincial Egypt during the Middle Kingdom and reflect many of the producers of the tomb goods discovered in the lower necropolis.

The depiction of crafts (which appear most frequently in tombs BH 15, 17, 2, and 3, although would certainly have appeared in other tombs if preservation had allowed) ensured that other activities on the walls were able to be continued perpetually. For example, riverine transport depended on boat manufacturers, while bakers and brewers depended on potters. Communities of craftsmen were interdependent within settlements and it is these connections that likely contributed to the attraction and growth of urban areas in the Nile Valley early in the dynastic period.

³³ Scenes of crafts in Egyptian tombs have contributed much toward discussions of ‘daily life’ in Ancient Egypt, see for example Montet (1925).

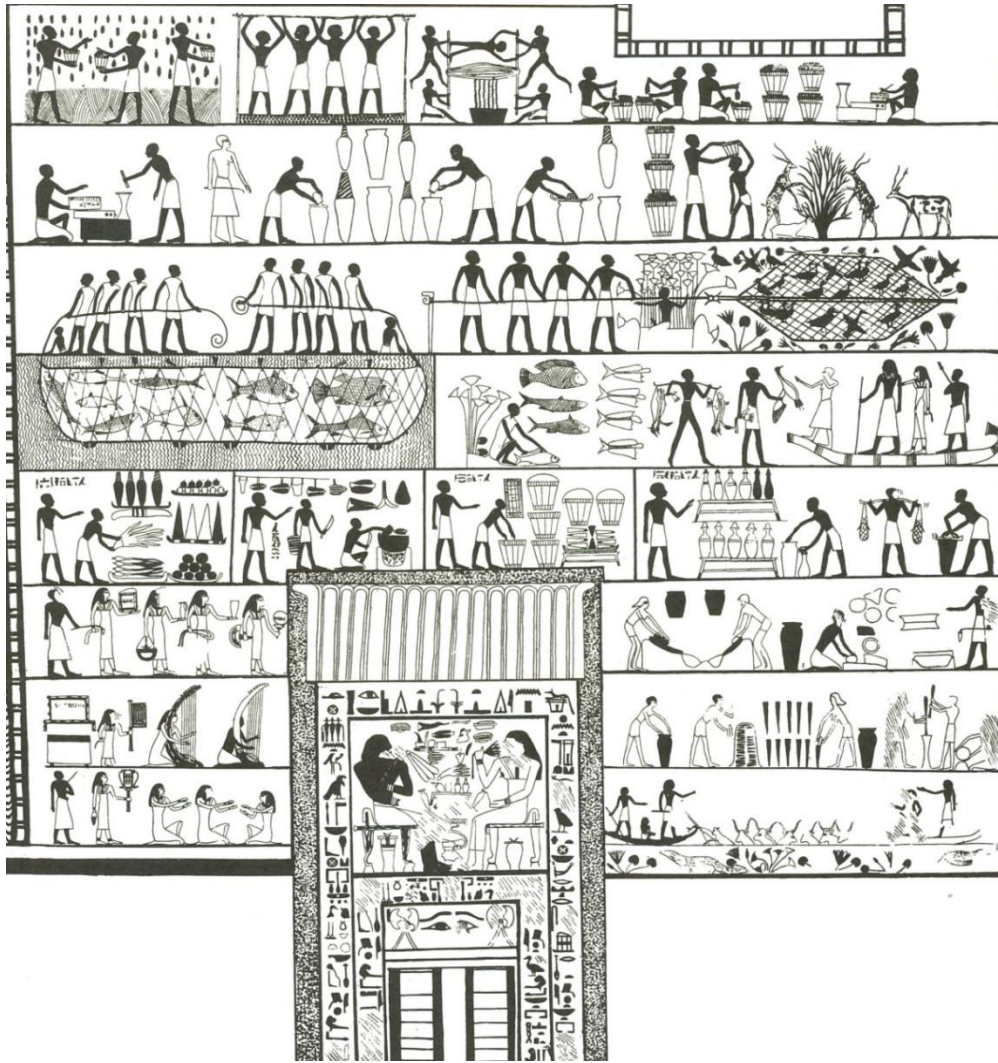


Figure 6.14: *Interdependent crafts shown together in the tomb of Amenemhat [BH 2] (BHI: pl. 12).*

Copying of designs from earlier tombs is not an uncommon occurrence in cemeteries and one particular motif deserves mention here. An almost unique scene in the tomb of Bakt III [BH 15] depicting an artist being trained is copied virtually exactly from a scene in the tomb of Ni-ankh-Pepi at Zawiet Sultan to the north of the region (Varille 1938: pl. 10-11; Kanawati and Woods 2010: 18-19; Lashien 2010). There are two possible reasons for the exactness in reproduction; either that the artist visited the older tombs at Zawiet Sultan and copied the scene, or that the scene formed part of a pattern book that was held in the area or handed down through one

family of artists (Lashien 2010).³⁴ There is no way of knowing which possibility is correct, but the interconnectedness of the monuments and community of the Oryx Nome from the Old Kingdom through to the Middle Kingdom is exemplified by this scene.

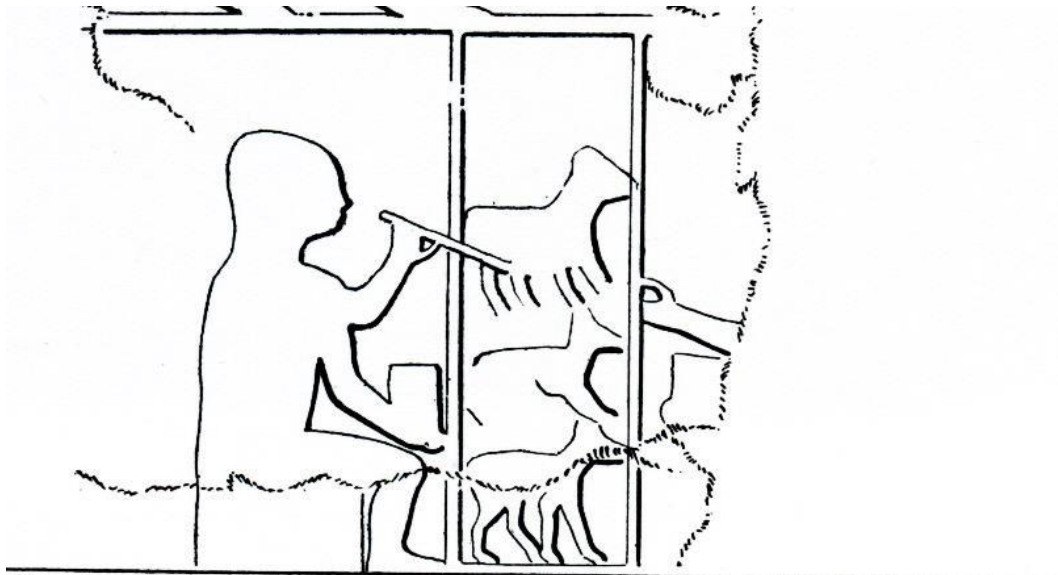


Figure 6.15a: *An artist being trained in the tomb of Ni-ankh-Pepi at Zawiet Sultan (Varille 1938: pl. 11).*



Figure 6.15b: *An artist being trained in the tomb of Bakt III at Beni Hasan (image by author).*

³⁴ The agency of the artist cannot be excluded and a discussion of this is provided by Vischak with regard to Old Kingdom tomb decoration (2006).

As discussed above, it is significant that nobody is shown quarrying, or pulling quarried rock in the tombs, despite that it must have occurred in the limestone works around Zawiet Sultan.³⁵ However, these scenes are not found in any tombs of this period, and may reflect the decorum of tomb depictions.³⁶ Quarrying was not a requisite for the afterlife, and eternal sustenance of the tomb owner's cult – therefore was perhaps not deemed necessary to depict within the tombs. However, it could be argued that scenes of painting (figure 6.15) were also unnecessary for the afterlife – in which case analysis must be made of the inclusion and exclusion of scenes from the tomb decoration, as suggested by Weeks (1979).

While there are no tomb models of sandal or stave makers from the lower necropolis, the frequent presence of sandals and staves was perhaps enough to ensure their assistance in the journey to the afterlife, as required in the Coffin Texts (Bommas 1999: 57-58). However, some crafts do feature prominently in the models from shaft tombs, notably spinning and weaving, which is also accompanied by parts of looms found in shaft 693 (Garstang 1907: 236, fig. 132). Other activities are represented by the tomb goods, such as discoveries of jewellery made from precious stones, metals, faience, and shells, kohl pots for make-up, and copper mirrors.

6.5.7 Daily life

Many of the scenes already discussed may easily relate to a title as vague as 'daily life' although here those scenes not concerned with ritual, funerary, or occupational activities have been categorised. Again, this categorisation does not preclude any

³⁵ For example, a reference to quarrying is found in the autobiographical inscription of Ahanakht (El Bersha tomb 5) in which it states, 'to whom costly stone came down, the chief of Hatnub' (*El Bersheh* II: 31-32, pl. 13; Willems 2007: 89).

³⁶ An exception to depictions of moving large stone blocks is the moving of the colossus of Djehuty-hotep at El Bersha (*El Bersheh* I: pl. 15). This is a unique scene, but is comparable to scenes of statues in procession seen at Beni Hasan (Maitland 2015: 180).

symbolic reading of these scenes, for which there are many examples. The remaining scenes in the Beni Hasan tombs include: gardening, musicians, washing cloth, and sexual intercourse. The latter of these has been discussed above, and gardening has been covered by Kamrin (1999: 73-74). While

It only leaves to add here the correlation between musicians in the upper necropolis tombs, with the instruments discovered in the shaft tombs below. The scenes in the upper necropolis usually include harpists, clapping, and sistras, and in some cases hand gestures communicating notes and instructions to those playing, known as chironomy (Simmance 2012). A harp was discovered in tomb shaft 287 by Garstang (1907: 222, fig. 153), as well as two reed flutes in shaft 437 (1907: 225). A large drum was found in shaft 183 (1907: 218, figs. 155, 160, 159) but as this was found alongside weaponry this may not relate to music, but rather warfare.



Figure 6.16: *A scene of scribes sitting in offices with columns supporting the roof from the tomb of Amenemhat. Scenes such as this give evidence for the built environment that might have been experienced by those living in the Oryx Nome (BH I: pl. 13).*

Little evidence relating to other lived experiences can be found in the cemeteries of Beni Hasan. But evidence for their built environment can be seen in the scenes of the tomb chapels. Flat or unroofed granaries, with square storage silos, and columned halls with rows of scribes recording produce must have existed in the administrative settlements in which the manufacturers named above must have worked. These buildings are represented frequently and give some idea of the built environment within the Oryx Nome. This cannot be dissimilar to elements found

within the state planned settlements such as those listed above, Kahun, Qasr el-Sagha, Wah-sut, or the Nubian fortresses.

6.5.8 Warfare and combat

Scenes of warfare and combat appear in four of the tombs at Beni Hasan. Notably, tombs preserving whole or parts of battle scenes appear at the onset of types 2a and 2b, at the turn of the 12th Dynasty. This may be an indication that warfare had become a feature of daily life in the Oryx Nome at this time – perhaps at a time that internal conflict at the succession of Amenemhat I was rife in Middle Egypt (Brovarski 2010: 65). It is possible that these scenes were first developed to mark this period, however the appearance again in BH 2 (dated by reference to the reign of Senwosret I) may indicate that these scenes subsequently became part of the artistic repertoire and perhaps also played a symbolic role within the tomb decoration (Shaw 1996: 245; Brovarski 2010: 66). It is noteworthy that militaristic titles only appear in BH 17 and 2 (see table 6.3), although the role of the Oryx Nome army during the former of these lifetimes is unknown. The autobiography of Amenemhat, as presented in 6.3.1, makes it clear that the soldiers of the region during his rule were engaged in warfare alongside the royal army in Nubia – although the scenes in his tomb do not deviate from the earlier model. The scenes are so standardised that in every complete example, a dog is shown to the left of the fortress under siege, while a siege barrier is shown to the right. Rabehl's analysis of the scenes in the tomb of Amenemhat draws on work by Regine Schulz that sees these scenes as part of the maintenance of divine order (Rabehl 2006: 65). Rabehl's comprehensive overview of siege battle scenes highlights the rarity of these scenes in private tombs, and again hints at increasing use of royal iconography at Beni Hasan during the Middle Kingdom (2006: 65-67). No

scenes of battle, or wrestling (see below) occur in the tomb of Khnumhotep II, and likewise he holds no titles relating to warfare. This is another reflection of the division of responsibility within the Oryx Nome during Beni Hasan's latest phase of use. Brovarski sees the two earlier examples in the tombs of Bakt III [BH 15] and Khety I [17] as historical documentation of a battle between the Oryx Nome and the neighbouring Hare Nome (2010: 66). His conclusion, surprising even to himself, raises many questions regarding the affiliation of regions to the Herakleopolitan kings during the late First Intermediate Period. Brovarski proposes that the Oryx Nome rulers sided with the Theban nomarchs, and battled with their southern neighbours – later enjoying favour during the 11th Dynasty for their involvement.³⁷ Shaw's analysis of the siege scenes concludes that all parties indicated are Egyptian and thus the battle must reflect a civil war, either historically or symbolically (Shaw 1996: 245). Shaw subsequently saw this as an early development of the Middle Kingdom standing army, originating from the Old Kingdom tradition of recruitment (Shaw 1996: 243-244). Brovarski on the other hand, records that the scenes include Nubians and Asiatics, and that the difficulty in discerning them comes from damage to the scenes and the quality of publication (2010: 63-65).

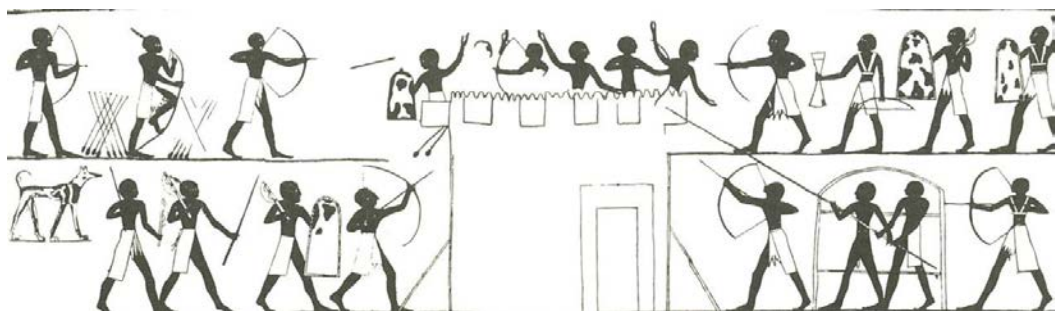


Figure 6.17: A siege shown in the tomb of Amenemhat (BH I: pl. 14).

³⁷ Brovarski bases this conclusion on the discovery of a stela at Dendera assigned to *Rdw-Hnm*, an otherwise unattested nomarch of the Oryx Nome (2010: 66-67). Brovarski himself finds situating *Rdw-Hnm* into the sequence of known rulers of the Oryx Nome during the Middle Kingdom difficult and in the absence of other evidence, it would be difficult to make any conclusions based on this discovery. Kanawati and Woods provide a similar consideration of the Oryx Nome's allegiance to the Theban rulers (2010: 10).

A number of weapons were also found in the lower necropolis tombs which may indicate that their owners were warriors (a title also found amongst the shaft tombs, see table 6.4), or engaged in their manufacture. A bow and case were found in shaft 183 (Garstang 1907: 218, figs. 155, 159, 160), and a battle axe discovered in shaft 511 (1907: 227, fig. 165).

Wrestling scenes have also been included in this category due to the often interconnected nature of wrestling and battle scenes (see table 6.1). Kanawati promotes that wrestling scenes are always shown alongside battle scenes (2001: 109), however, this is only true of BH 15, 17 and 2. Earlier tombs (BH 29, 33, and 27) include depictions of wrestlers, but not of the battle scenes. Likewise, when presented along with scenes of battle they are always found on the east wall of the tombs, while the earlier wrestling scenes are less standardised in their placement.³⁸

6.5.9 Cultic, ritual, funerary, and processional activities

As expected, the decoration of the tomb chapels of Beni Hasan frequently include scenes relating to funerary customs, such as rituals, processions and offering scenes. Discussion of more specific offering scenes is given below, but here those scenes relating specifically to funerary customs will be discussed and linked with items discovered in the lower necropolis.

Boat processions along the Nile are only found in three of the decorated tomb chapels at Beni Hasan. The tomb of Khety I [BH 17] includes the earliest depiction and shows two separate flotillas comprising of four boats each on its west wall (BH II: pl. 12). The lower register depicts four boats each with masts, the left one still shows the mast being erected by the sailors. As the boats are sailing vessels, and no oars are

³⁸ It is only in BH 27 that wrestlers are first depicted on the east wall, indicating that a closer study of scenes and where they appear may assist in understanding the chronological arrangement of the tombs.

seen, they are presumed to be sailing south utilising the prevailing wind of the Nile Valley, to reach the cultic centre of Abydos (Kanawati and Woods 2010: 71-72). The higher register showing four boats, two of which are each being towed by a rowing boat, are likely participating in the return journey to the Oryx Nome. This pattern, albeit in a more simplified format, also appears on the west wall of BH 3. In this case the boats are arranged in their direction of travel, the rowing boats on the south side face north, and the sailing boats on the north side face south. Those on the north side include a canopy covering the coffin of Khnumhotep II and, according to Kamrin's analysis, are sailing to Abydos in order to identify the deceased with Osiris so that they can participate in his festivals (Kamrin 1999: 78). The return journey, on the southern side, depicts Khnumhotep II sitting beneath a canopy, this time seated and wrapped in a cloak, presumably resurrected (Kamrin 1999: 79). These scenes serve to connect the deceased with Osiris, and reflect the real funeral procession across the valley to the necropolis.³⁹ A similar pattern of beliefs can be seen in tomb goods from the lower necropolis; in most cases the deceased would be buried with models of a rowing boat and a sailing boat, reflecting travel utilising the river current and prevailing wind respectively. Tooley states that these boats were included in the burial to facilitate a number of journeys the dead may wish to make, from crossing the river to traversing the country and also participating in the funeral procession (1995: 56). In table 6.2 above it is demonstrated that in the ten undisturbed tombs rowing and sailing boats were included in 100% of the tomb assemblages, likewise these models (or

³⁹ Lashien has suggested an alternative reading to processional boat scenes in Old Kingdom tombs. Rather than the scenes depicting the pilgrimage to Abydos, Lashien has argued that they in fact relate to the real inspection of funerary estates in the Delta region by the deceased who travels back to the necropolis in order to witness the tomb goods arriving from the funerary estate (2009: 102). It is possible that these scenes developed over time and came instead to symbolise the growing Middle Kingdom tradition of associating the deceased with Osiris at Abydos. Kamrin in particular has referred to the explicit mentions of Abydos within the captions to the scenes at Beni Hasan (1999: 76-90) which would support her theory.

fragments of them) appear often in Garstang's catalogue of tomb goods. Fraser's brief discussion of items found in the excavation of the tomb shafts in the upper necropolis also make reference to the discovery of small figures from boat models and oars/paddles, implying that the lack of earlier painted scenes was supplemented by wooden models in the burial chambers (BH II: 79-81).

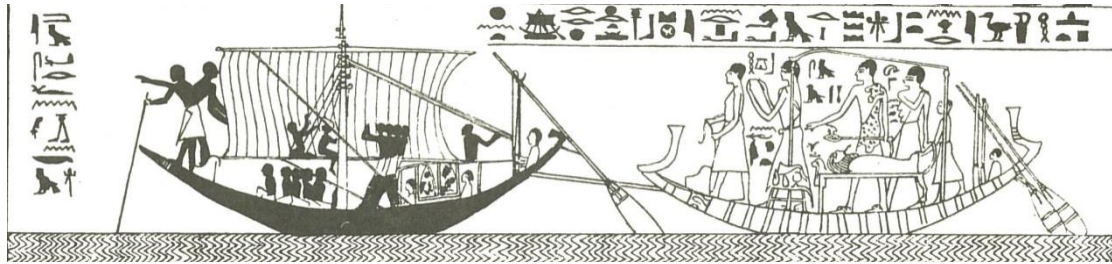


Figure 6.18a: A flotilla of boats on the Nile sailing south to Abydos in the tomb of Khnumhotep II (BH I: pl. 29).



Figure 6.18b: A flotilla of boats on the Nile row north returning from Abydos in the tomb of Khnumhotep II (BH I: pl. 29).

The celebration of the cultic rites, as defined and discussed by Kamrin (1999: 127-129) is only expressed explicitly in BH 2 and BH 3, although alluded to in earlier scenes. These scenes, on the south walls and again in the shrines, depict the family members and officials presenting offerings to the cult of the *ka* of the deceased. One particular motif is copied from BH 2 into BH 3 showing the *ḥm-k3*, *sm*, and *hry-ḥb* performing rituals for the cult of the deceased (BH I: pl. 17, 35). That artists were utilising scenes from older tombs in the area has already been discussed above, and

the presence of a pattern book or dedicated school for artists in the area is a possibility.

Much discussion regarding the decoration of BH 3 (Khnumhotep II) has focused on the scene of the arrival of a group of Asiatics shown on the north wall.⁴⁰ A royal scribe accompanying the party holds out a document to the figure of Khnumhotep II stating that 37 *ꜥ3m.w* were brought during the sixth regnal year of Senwosret II. The scribe is accompanied by an *imy-r nw.w* named Khety (BH I: pl. 30). Aufrère, calls this individual a ‘Superintendent of desert-policemen’ and further states that ‘these policemen, who criss-crossed the desert fringe, used dogs in order to control Bedouin people in the vicinity of the valley’ (2002: 210). Though Aufrère does not give further details, it is possible that he used the depiction of Kay on stela Berlin 22820 in order to come to this conclusion. Kay was both an ‘overseer of desert hunters’ (*imy-r nw.w ḥ3s.wt*) as well as an ‘overseer of the western deserts’ (*imy-r smy.wt imnt.wt*) and is depicted with a bow and arrow, and two dogs (Anthes 1930: 108-109). Goedicke describes Khety as an ‘Overseer of hunters’, although gives no indication of whether this role was significant (1984: 206). The party are described as being brought to Beni Hasan for the purposes of obtaining black eye pigment (galena). Goedicke points out that a group of 37, including women and children were probably not a trade caravan – but were perhaps brought to Khnumhotep II for the purposes of labour to use in the extraction of the galena (1984: 204, 210). The Asiatics are led by an individual captioned, *ḥk3-ḥ3s.wt Tb-š* (BH I: pl. 28).⁴¹ Together

⁴⁰ For discussion of the scene of Asiatics arriving at Khnumhotep II see Goedicke 1984; Kessler 1987a; Aufrère 2002; Rabeul 2006; Kamrin 2009.

⁴¹ The identity of *Tb-š* has been discussed previously. It is possible that this individual is Abi-Shai, the oldest son of Zeruiah, brother of Joab and Asahbel in the Bible (1 Chr. 2:16). His title as *ḥk3 ḥꜥs.wt* has provoked discussion that he is the earliest named Hyksos in the Nile Valley, a group that would later establish their own ruling dynasty at Avaris in the north eastern Delta. However, these points do not change the significance of the representation in the tomb of Khnumhotep II, and the popularity of the name *Tb-š* is not known (Goedicke 1984: 203).

with the man following him they present two animals, the first an ibex and the second a dorcas gazelle (Goedicke 1984: 208) – these animals are also seen in the desert hunts frequently depicted in the Beni Hasan tombs. Goedicke reads significance in the use of a *ḥk3* stick by *Tb-š* to lead the ibex toward Khnumhotep II (1984: 208). However, on closer inspection the stick is curved, but not to the degree of the *ḥk3* stick used to write his title (Kamrin 2009: 25-26) which may entail that these animals were brought as tribute to Khnumhotep II and not symbolically to represent their origins (Goedicke 1984: 208; Kamrin sees the animals as linking the Asiatic leader with the desert scene above, 1999: 94). The bringing of desert game appears frequently in processions of animals in the Beni Hasan tombs and is included beneath this scene in BH 3. Maitland has more recently considered that scenes of foreigners within tomb decoration served to demonstrate the tomb owner's ability to control elements beyond his geographic boundaries (2015: 184).



Figure 6.19: The delegation of Asiatics arriving in the tomb of Khnumhotep II (BH I: pl. 31).

Kessler equates the depiction with scenes of foreigners presented to the king, and thus believes the scene to be linked with the annual *wp-rnpt* (New Year) festival when the deceased would be equated, like the king, with Horus (1987a: 158-159).⁴² A number of mentions on the west wall of BH 3 of *Hr m3^c-hrw* may give some credibility to Kessler's reading of this scene and the decoration in the rest of the chapel (BH I: pl. 29). However, Kamrin suggests that this may relate to the tomb owner's role as being heir to an Osiris, or becoming an Osiris and thus his son (in this case Nakht) becoming the justified Horus (1999: 56-58). In all cases this phrase appears in a context with some reference to the semi-divine nature of Khnumhotep II himself, such as the divine statue being transported or the shrine being constructed. As discussed below, it is possible that Khnumhotep II became deified locally on his death and could have become the focus of worship in a local temple cult.

Helck, on the other hand, suggested that Beni Hasan was the location of Egypt's north eastern defence network during the 12th Dynasty based on the transport of Asiatics there (Helck 1962: 46). This claim is not founded in any other basis than this scene, and does not correlate with the titles recorded in the tomb – notably that no military roles or titles seem to have been held by Khnumhotep II. For this reason Geodicke has already discounted Helck's theory (1984: 206).

Rabehl's analysis of the scene, and the comparative scenes of foreigners in other tombs at Beni Hasan promoted that this scene was an expression of loyalty to the king. Her analysis recognized that scenes of foreigners in the tombs of Beni Hasan only occur in those instances where the king had appointed the tomb owner's position. Because of this, Rabehl considered the scenes an act of affiliating the deceased with the king and henceforth an act of loyalty (2006: 249). Rabehl considered the scene in

⁴² Kamrin agrees with this, comparing it with scenes of kings smiting foreigners to ensure the maintenance of *maat* (2009: 31).

BH 3 the end-point in a development of scenes of other foreigners depicted in tombs BH 14, 2, and 3 (2006: 248). Though in Maitland's case, this scene could demonstrate the assumption of royal prerogatives in displaying the power of the tomb owner at the expense of that of the king (2015: 184).

On the other hand, Kamrin considered the scene as symbolic in that it represents the eternal provision of eye-pigment for Khnumhotep II, as well as the royal idealism of controlling foreigners and maintaining *maat* (for the depiction of foreign tribute see Kanawati 2001: 111). As the scene appears on the north wall, beneath the usual desert hunt, it may geographically locate these foreigners in the north-eastern deserts and Khnumhotep's role in subduing chaos and disorder by bringing this group under his control (1999: 93-96). A later article by Kamrin suggests that she envisages some historicity in the scene due to its uniqueness and accuracy in its details (2009: 23). Although she maintains that the symbolic intention of the scene need not be discounted, and overall it pertains to the ordering of chaotic elements (the foreigners) and subsequently their control by Khnumhotep II, in order for them to bring galena and wild desert animals to him (2009: 31).

As introduced by Rabehl, processions of foreigners also appear in BH 14 (Khnumhotep I) and BH 2 (Amenemhat). Likewise, a model of a foreign woman carrying a baby on her back was discovered by Garstang in tomb shaft 181 in the lower necropolis (Garstang 1907: 218, fig. 140). This model is very similar to a depiction in BH 14 (BH I: pl. 45). In both instances from the upper necropolis they appear in processional scenes where groups of animals are presented to the deceased, and are always led by an Egyptian official who brings them before the tomb owner. The likelihood of the scene in BH 3 therefore being a realistic, autobiographical record, or 'incidental scene' is unlikely. It is probable that groups of foreigners

frequently visited the region, and perhaps offered their goods or services to the local officials in return for land, housing, or merely permission to reside in or pass through the area. The foreigners depicted differ somewhat, but the individuals depicted simply had to look foreign for the scene to have symbolic meaning. This is not to say that the scenes in BH 14, 2, and 3 are not records of historical events – just that their symbolism is the reason for their inclusion in the tomb decoration.

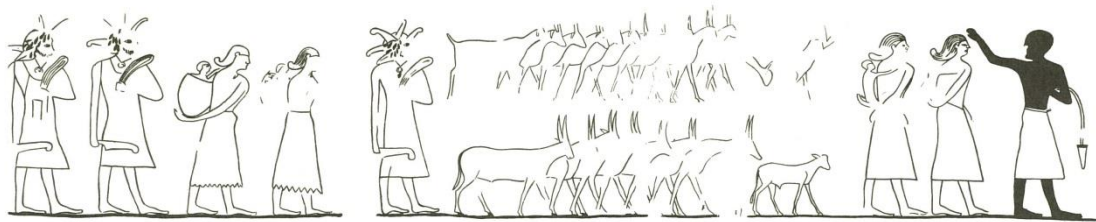


Figure 6.20a: *Foreigners arriving in procession from the tomb of Khnumhotep I [BH 14] (BH I: pl. 47).*



Figure 6.20b: *A.1911.260, a wooden model of a foreign woman from shaft 181 in the lower necropolis. © The National Museum Scotland.*

Scenes of animal processions are common across the Beni Hasan upper necropolis; one particular motif occurs three times in the Beni Hasan tombs (BH 15, 21, and 2) that is unique to them (Maitland 2015: 129). The only caption given to this scene is in BH 15 (Bakt III), which starts with *in.t wnd.w n k3.f in s3 mni.w.f n d.t.f* ('bringing short-horned cattle for his *ka* by the son of his herdsman of his estate'). The motif begins with a young man carrying a calf on his shoulders, followed by an older man with short beard in a long striped gown holding a stave and leading a large short-horned cow. In BH 15 and BH 2 the cow has a cloth over its back. The caption, in BH 15, above the cow reads *wnd.w n k3.k* ('short-horned cattle for your *ka*'). In BH 2 a number of cattle feature in the procession following this herdsman, but in tombs BH 15 and BH 21 the herdsman is only followed by one more figure. This figure is another younger man with a young calf over his shoulder, and another in front led on a rope, both looking backwards. BH 15 captions this final part with *wnd.w n bhs irtt n^c n k3.k* ('short-horned cattle calf, milk white, for your *ka*'). The use of this motif across three of the tombs, and the stylistic similarities between them indicate either that this formed a central part of the final funeral procession, or was part of a symbolic decorative scheme used at Beni Hasan only. The striped cloak of the herdsman is most similar to that seen in scenes at Meir (*Meir* III: 25, pl. 35; *Meir* VI: pl. 18) and El Bersha (*El Bersheh* I: pl. 7), but may be indicative of a foreign origin for this herdsman. His employment by officials in the Oryx Nome, as well as the arrival of caravans, may favour the consideration that foreigners were settling in the region, and perhaps renting land from the tomb owners of Beni Hasan.

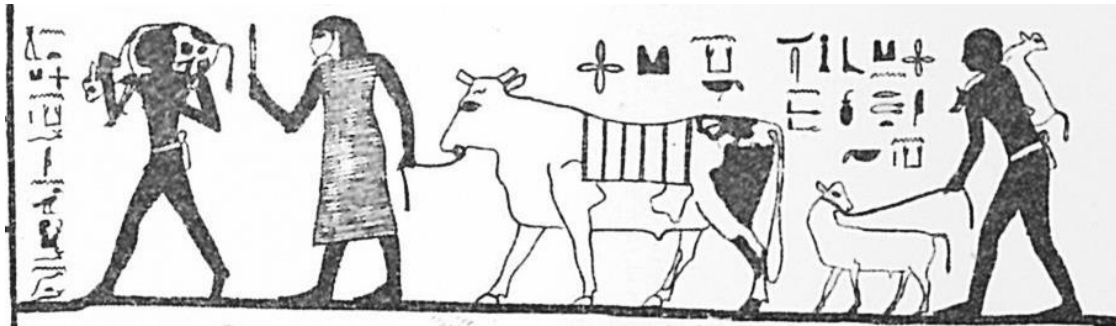


Figure 6.21a: A herdsman and two attendants arrives bringing short-horned cattle to Bakt III (BH II: pl. 7).



Figure 6.21b: The same motif as fig. 6.21a, in the tomb of Bakt III (image by author).

The final scene worthy of note here is the image of a naos containing a statue of the deceased being pulled in procession. This scene appears in tombs BH 15, 17, 2, and 3 and has no standard position in the tomb. The scenes are all captioned with *ii ntr s3 t3* ('come god, to protect the land'). These scenes are accompanied by acts of dancing, singing, and offering. They seem to relate to the act that Khnumhotep II discusses in his autobiography:⁴³

I caused the name of my forefathers to endure. I caused to be efficient the *ka* chapels thereof. I accompanied my statues to the temple.

⁴³ See section 6.3.2 above for a translation of this text.

The semi-divine status of Khnumhotep II was introduced above, and this scene, together with the autobiographical inscription, indicates that a temple cult for the local governors of the Oryx Nome was established within the region. This may have had a similar appearance and function to the sanctuary of Heqaib founded at Elephantine (Habachi 1985: 158-159), and would not need to be located within the direct vicinity of Beni Hasan, but is possibly to be located within one of the settlements of Her-wer, Neferusi, or Menat-Khufu. Maitland argues that these scenes ‘mirror grand royal building projects’ (2015: 180) and were therefore perhaps an appropriation of royal prerogative.

6.5.10 Offerings

False doors carved into the walls of the rock-cut tombs provided focal points through which the spirit of the deceased was able to return to the tomb chapel to partake in rituals, festivities and offerings. In the tomb of Bakt I, this feature was cut into the eastern wall of the tomb – likely to mimic the usual arrangement if the tomb had been cut into the western cliffs. Immediately following this, in the tomb of Bakt II and throughout the other tombs, the false doors are carved into the western walls. This conforms to the usual belief that the west was the place that the deceased resided, and thus was able to return to the tomb chapel from the burial chamber (Kamrin 1999: 131). The small false door of Khnumhotep II [BH 3], while not carved into the western wall, is placed within the autobiographical inscription at the western end of the south wall (BH I: pl. 35; Shedid 1994: 55). Kamrin points out that it is strategically placed above the shaft in which Khnumhotep II was probably buried, which was also furnished with a small libation table (1999: 131-132). It is also positioned beneath scenes of offerings being brought to both Khnumhotep II and his

wife Khety by officials and family members. Therefore the false door became an extension of the usual offering and processional scenes, resulting in the abbreviated form of the false door seen in Khnumhotep II's tomb (BH I: pl. 26). It is also perhaps of note that the false door appears directly beneath the depiction of Nakht, the 'superintendent of the desert-land' (see 6.3.2). An additional, 'Netcher-nakht' is added beneath the caption, perhaps implying that rather than the two individuals mentioned by Aufrère (2002: 210), it is possible that only one *imy-r smy.t* is depicted in the tomb, and again may indicate that his role was more focused on the necropolis than patrolling the surrounding desert area, perhaps entailing that his actual role would be closer to 'overseer of the necropolis'. Many of the stelae discovered by Garstang in the lower necropolis included false-door motifs, surmounted by *wadjet* eyes (1907: 187), again implying that the cemeteries would have been managed, and visited regularly for the continuing remembrance of the local population.

6.6 Summary

The evidence presented in this chapter offers an insight into the complexity of provincial Egyptian society in the Oryx Nome during the Middle Kingdom. From the highest levels of society down to the lowest, each is represented through the scenes and/or goods preserved in the upper and lower necropolises at the site. The Oryx Nome offers an advantageous opportunity to correlate what is known about ancient Egyptian urbanism, society and class to better understand how one community during the Middle Kingdom ecologically interacted with each other, their local hinterland and resources. It is however, unfortunate that the current situation and availability of Egyptian archaeological sites necessitate that focus must remain on mortuary remains in many areas.

While much has previously been argued regarding the realistic or symbolic nature of the mortuary evidence from Beni Hasan and similar cemeteries, it should be remembered that the ideologies and complexities of mortuary beliefs were probably not of primary concern in the daily lives of many inhabitants within the Oryx Nome. Instead, the dynamic natural environment provided ample issues to be worried about, and the agricultural calendar referred to in the scenes studied by Kamrin, and discussed in chapter 4, was likely the defining factor of ancient Egyptian life. This is why the seasons are so well represented in the agricultural scenes of the Beni Hasan tombs, and were a crucial element in the provision of food and drink which would in turn provide sustenance for the eternal cult of the deceased. By understanding the Egyptian landscape it is possible to understand how the scenes painted in the tombs relate to this seasonal aspect of Egyptian culture, and likewise to the natural environment of the Nile Valley. For example, it is possible that fishing and fowling scenes depict activity that was not only reserved for the high elite, but formed a significant part of dietary provision in Ancient Egypt, an activity that took place as the waters of the flood receded leaving pools of water and trapped wildlife in the marshy edges of the floodplain (Burn 2014) as well as pertaining to a symbolic realm within the tomb owners world view (Angenot 2015; Maitland 2015: 210).

The ecological relationship between the natural environment and the inhabitants of Oryx Nome during the Middle Kingdom is quite clear from the mortuary evidence from the cemeteries of Beni Hasan. Three-dimensional models and painted tomb scenes provide a broad, yet selective, description of activities that occurred in the area through this period. However, when considered alongside inscriptions they also reveal a more abstract perspective for the cultural landscape, one imbued with symbolism and meaning. The placement of false doors on the west

of later tomb chapels for example, indicates the relationship between the architectural design and natural environment that would be otherwise lost if removed from their geographical context. The (re)interpretation of natural features with cultural forms, in particular *Dw.t Hr* with the peak of Zawiet Sultan, demonstrates the ability of landscapes to be enculturated by its inhabitants in order to make it familiar – turning space into place, or *isfet* into *maat*.

The well-connected province had frequent visitors from the royal court and from foreign groups too. The highly stratified regional administration is reflected in the tomb scenes, and in the control over natural resources exhibited in the prevalence of tomb models for the lower necropolis. The growing autonomy of the region was subsequently curbed during the reigns of Senwosret II and III by not appointing the sons to their family inheritance, which ceased construction of large rock-cut tomb chapels in the upper necropolis and coincides with the move of the regional necropolis to Balansura on the west bank (as discussed in chapter 3) and a rise in the ‘classic’ Middle Kingdom style of ceramics (Kemp and Merrillees 1980: 51; Bourriau 1981: 60).

CHAPTER 7

CONCLUDING REMARKS

In concluding and studying a topic so broad and far-reaching as ‘landscapes’ it is possible to venture into areas that require further research and exploration and this thesis is no different. As outlined in chapter 2, landscapes are personal perceptions of space that, through the interpretation of an observer, are given form and meaning. Thus, any reconstruction of an ancient Egyptian landscape is understandably flawed by the perception of the modern author who, by their very nature, cannot possibly construct the same landscape as that which an ancient Egyptian would. This limitation hinders any study of environment, but should not stop the investigation of ways to better understand how early inhabitants of the Nile Valley lived, survived, and interacted within their surroundings. Ultimately, their ecological relationships are preserved in the very landscapes that they constructed, that lay buried beneath the floodplain and settlements of today, in the decoration of their tomb chapels and in the urban remains they have left behind. The Oryx Nome has provided a case study with a variety of evidence on which to explore whether the methodology proposed in figure 2.3 could contribute a more holistic model of ancient Egyptian cultural landscapes than has previously been the case.

As outlined from the outset, any inferences made from this study require testing in the field and any findings here are simply one option selected from the many that could have been the case. These final concluding remarks summarise the main results from this study with consideration to the three key issues highlighted in the introduction as well as providing some proposals for further steps.

7.1 The natural environment of the Oryx Nome

An analysis of the natural environment of Middle Egypt and the Oryx Nome has shown that this region benefited from a wide floodplain, almost 20km wide in some areas, bounded on the east by the steep limestone cliffs of the eastern desert. On the west, the strong prevailing winds blew Aeolian loess over the shallow western desert plateau onto the floodplain edge before reaching the Bahr Jusuf, a narrow branch of the Nile flowing northwards toward the Faiyum. The wide region of cultivation allowed for substantial lateral river migration, evident now by the relics of ancient levees oriented north-south. These movements were more dynamic during the inundation period between September and October, as the river receded to its regular flow. Areas of higher land that escaped being submerged during the annual flood provided suitable sites for habitation and communities established themselves in these areas. Islands surrounded by seasonal water channels anastomosing across the floodplain would have been common in this area providing concentrated zones of flora and fauna suitable for fishing and fowling activities (Burn 2014: 44-45). Over time, these islands were stabilised by growing vegetation and the impact of human habitation providing expanding areas of high land for further urban growth (Graham 2010: 139). The steep cliffs in the east were broken by wadis that provided further areas for hunting of game, such as the scenes show in the tombs of Beni Hasan. These wadis also had rocky outcrops suitable for limestone quarrying near to the floodplain, making access and transport easier. This was a crucial resource for the region, even being used to construct the Late Period Thoth chapel at Tuna el-Gebel now in the Romer-Pelizaeus Museum (Klemm and Klemm 2008: 77). Prehistoric rains, during the Protonile phase, across the eastern deserts had caused the formation of alluvial fans at the mouths of wadis supplying further high land suitable for human habitation. The most evident of these fans being at Tihna el-Gebel, while the Oryx Nome only had minor wadis entering on its east bank providing little benefit to settlers there, hence habitation

appears to have been focused in the floodplain itself. These minor wadis provided little access into the eastern deserts with many of them ending in steep cliffs blocking any further contact with eastern regions, as demonstrated by the Wadi Batn el-Baqara.

Within this ever-changing environment, the population of the Oryx Nome developed an ecological relationship with their surroundings. The interregional contacts that endured through the Middle Kingdom ensured that the Oryx Nome remained a prosperous Egyptian province through the utilisation of its natural resources. The environment provided the ancient Egyptians with the tools in which to found their civilisation, but what they developed was unique and exceptional – a single option of countless possibilities. The notion of environmental possibilism entails that the coming together of nature and culture resulted in the landscape perceived and inhabited by the ancient Egyptians. The methodology outlined in figure 2.3 ensured that any number of variations could be accounted for, and any further changes were built into the continuing cycle of landscape development.

7.2 Ancient Egyptian concepts of space and place

Understanding how the ancient Egyptians perceived their world has proven a challenge that cannot be solved by this thesis alone. However, through a consideration of the ways in which they chose to categorise the environment around them (both natural and manmade) it has been possible to make some further suggestions that can aid the appreciation of their cultural landscapes. The categorisation of elements, as indicated in the Onomasticon of Amenemope, proved critical to the ways in which the ancient Egyptians described – or in this case listed – their landscapes, in what might be considered a literary map of the River Nile. The understanding of regions located away from the Nile however is more complicated. These domains, often in the desert, constituted realms of unfamiliarity and potential chaos, literally the unknown. This existed in opposition to the more culturally familiar area of the Nile

Valley. The ancient Egyptian concept of *maat* prevailed over the known ‘place’ of the valley – an area that was built into the culture of Ancient Egypt – whereas the unfamiliar desert space gave geographic depth to the term *isfet* – a space of potential chaos and unknowing. In order to generate meaning within these spaces, particularly those on the desert edge closest to the floodplain, permanent natural features could be encultured in order to ascribe an identity to them that was culturally familiar to the Egyptians. This can be seen in the later Turin map of the Wadi Hammammat region that names places such as ‘the hill where Amun rests’, or ‘Shrine of Amun of the pure mountain’ (Harrell and Brown 1992: 7). Other examples can be found across the Nile Valley including Gebel Barkal in Nubia and the Theban peak El Qurn (Richards 1999: 88). One such liminal space between desert and floodplain in the Oryx Nome was the mouth of the Wadi Batn el-Baqara. Though no Middle Kingdom structures have survived, it is likely that the 18th Dynasty Speos Artemidos located in this wadi mouth replaced an earlier structure that sought to emplace Egyptian culture here. The celebration of the return of the wandering goddess in these zones is further indication of the effort to enculturate these marginal areas.

7.2.1 Horus Mountain: A case of enculturation within the landscape

In a constantly changing environment caused by the Nile flood cycle, the permanence of natural features provided nodes on which to attach cultural meaning and memory. One such locality in the Oryx Nome has, through the research in this thesis, now been located at Zawiet Sultan. The specific naming of the promontory rising above the settlement remains there as *Dw.t Hr*, Horus Mountain, served to establish Egyptian cultural identity within the landscape of the Oryx Nome. Though the mountain does not appear in the form of a falcon (this is not necessary for the naming of a locality) the ascription of this area in later traditions as the location at which Horus defeated the enemies of the sun god meant that an oral tradition may

have existed in this area much earlier. Similarly, the presence of a cult of Horus of Hebenu located nearby gives greater confidence to the equation of Horus Mountain with the peak at Zawiet Sultan. For those living in the region during the Middle Kingdom, the sight of this peak would have provided a sense of local identity. It may also have served to establish state religion in the area and the promotion of a cult of Horus among the local population. Similar naming of features is also found at Abydos in the naming of Anubis Mountain (Wegner 2007b).



Figure 7.1: *Dw.t Hr, Horus Mountain at Zawiet Sultan rising above the settlement remains (image by author).*

7.3 Inhabiting the land

As well as naming natural features in the land, the inhabitants created their own places too. By the start of the Middle Kingdom, several substantial administrative centres were in existence in the Oryx Nome. Four settlements have been studied in this thesis: Hebenu, Herwer, Neferusi and Menat-Khufu.

Hebenu was one of the earliest sites mentioned in preserved texts and is certainly to be associated with the Greco-Roman remains at Zawiet Sultan mentioned above. However, the more ancient settlement of the Old and Middle Kingdoms was probably the victim of a migrating Nile eroding its way east across the floodplain. The original location of Hebenu is probably to be sought in the area of Beni Ahmed and its neighbouring koms, while the current remains reflect the steadily migrating community of Hebenu forced to overbuild their earlier cemetery in order to reside directly beneath the eastern desert promontory of *Dw.t Hr*. The settlement was founded at least as early as the 3rd Dynasty due to the construction of a small step pyramid on the promontory of *Dw.t Hr* at this time. It was clearly the administrative centre of the Oryx Nome during the Old Kingdom and the regional cemetery of the 6th Dynasty was clearly located in the rock-cut necropolis here – probably taking over from a site in the south of the region near to the cemetery of Nuerat. It was perhaps also at this early time that a royally-founded cult of Horus was established at the settlement. This cult, which continued into the Greco-Roman Period under the syncretised form of Horus-Apollo, was maintained at the site in a physical stone temple from at least the 18th Dynasty. The latest form of this cult site was a small shrine on a stone platform reached by means of a ramp leading from the later mudbrick town walls. The disappearance of Hebenu from First Intermediate Period and early Middle Kingdom sources implies that it lost its administrative function at the end of the Old Kingdom as attention moved to the south of the region. This period of relative obscurity reveals the connection between Hebenu and royal authority. Its demotion from regional elite life reflects their growing autonomy at the expense of the state at this time. Likewise, its reappearance, during the 12th Dynasty, is indicative of the recentralisation of the country under a strong central administration (see section 5.1.3).

Neferusi and Her-wer took over as administrative and cult centres for the region during the First Intermediate Period. Being located in the south of the nome, they provided

easier links to the Hare Nome as well as facilitating the move of regional cemetery to the site of Beni Hasan. Their proximity to each other, demonstrated by preserved texts, influenced the selection of Garris (Neferusi) and Mantut (Her-wer) as suitable locations to search for their remains, an equation first suggested by Kessler. The switch from Beni Hasan to Balansura as regional cemetery in the 13th Dynasty may also reflect the location of Neferusi and Her-wer as they are equidistant from each necropolis. The riverbanks at Neferusi and Hebenu were important areas for local festival processions during the Old Kingdom and most likely reflect a link between the cults of Horus at Hebenu and Hathor at Neferusi. The migration of the river meant that each of the settlements waxed and waned with changing circumstances resulting in the landlocked location of Neferusi and Her-wer today. Both towns' cults would later become incorporated into the titles of officials from the Hare Nome operating from Hermopolis indicating that the nome boundaries had changed following the Middle Kingdom and the two southerly towns had come under the authority of the southern nome. This may have been caused by upheavals caused during the reestablishment of Egyptian control in Middle Egypt following the expulsion of the Hyksos under Kamose. A siege at Neferusi by Theban troops clearly points to its strategic location, but also its original location alongside a water channel. Again, the dynamic nature of the Nile Valley calls into question previous understanding of the morphology of the area as well as its geospatial relationships.

The final settlement considered as part of this study was Menat-Khufu. While its name may suggest a foundation in the 4th Dynasty, no mentions of the settlement occur until the 11th Dynasty. It may originally have been founded as part of the Old Kingdom state efforts to internally colonise the most productive areas of the Nile floodplain (Kees 1958: 33-34; Baines 2013: 157), but its administrative role was not established until the 12th Dynasty. It was during the Middle Kingdom that the pharaoh Amenemhat I assigned Khnumhotep I the position of Overseer of the Eastern Desert (a title additional to nomarch). This title came with

the accompanying role of *ḥ3ty-ꜥ n Mnꜥ.t-Hwfw*, a dynastic position that passed from him to his successors, ending with Khnumhotep II during the reign of Senwosret II. Menat-Khufu appears not to have provided any religious or cult facilities and was purely administrative in nature – perhaps only serving as the residential town of those holding the Overseer of the Eastern Desert title, a little understood role. Following the Middle Kingdom, Menat-Khufu disappears from the ancient records and was possibly abandoned. It is more likely that with the disappearance of the Overseer of the Eastern Desert role during the reign of Senwosret II, the settlement of Menat-Khufu had a less significant role in the local area and thus had no reason for mention in further sources. This thesis has suggested that Menat-Khufu was both the seat of the Overseer of the Eastern Desert, as well as the home of the mortuary industry serving the necropolis of Beni Hasan providing a home for tomb carvers and those that manufactured funerary goods providing for the burials of the regions elites. It has been suggested here that the location of Menat-Khufu should be sought in the vicinity of El-Anbage, near Abu Qurqas.

7.4 Agents of culture

The wide floodplain meant that the Oryx Nome was one of the most productive areas of the Nile Valley and it is therefore unsurprising to find early mentions of it and its officials on vases from the Step Pyramid at Saqqara. The officials of the Oryx Nome reached their peak during the early Middle Kingdom, refocusing their activities in the south of the nome building stronger relationships with the nomarchs of the neighbouring Hare Nome residing at El-Ashmunein. Their central position in Middle Egypt meant that groups of foreigners passed through the nome, as depicted in the tombs of Khnumhotep I and II, and the settlement of Neferusi would later prove a strategic location during Kamose's battles with the Hyksos (Smith, H. and Smith, A. 1976). The officials in control of this area during the early Middle

Kingdom were buried in the regional necropolis which was moved from Zawiet Sultan to Beni Hasan during the late Old Kingdom. Here, a series of impressive tomb chapels were constructed in the upper necropolis above an already established elite cemetery on the desert slopes below. The social stratification of the cemetery remains somewhat unclear as a number of uninscribed tomb chapels and poor documentation during excavation of the lower necropolis continues to confuse chronological and social studies – though the longevity of the cemetery's use seems certain.

Those buried in the upper necropolis included the highest elite, namely the Nomarchs and the Overseers of the Eastern Desert. While both roles overlapped, their administrative division during the early 12th Dynasty is more certain. The Nomarchs maintained authority over the traditional religious and military operations, while it has been argued that the Overseers of the Eastern Desert took on management of the necropolis at Beni Hasan and possibly also quarrying activities in the eastern desert. The chronological framework suggested in figure 3.14 makes use of previous chronological studies and accounts for the changes in administrative roles during the early 12th Dynasty. Likewise, the changing relationships between neighbouring nomes have been considered, with emphasis turning toward the 17th Upper Egyptian Nome to the north. However, this development was cut short by Senwosret III who curtailed the power of ruling regional officials by appointing their heirs to positions at court. This was the case for Khnumhotep III which ended the dynastic succession of administrative roles in the Oryx Nome as well as the construction of monumental tombs in the upper necropolis at Beni Hasan (Franke 1991: 51). A period of high floods during the reign of Amenemhat III caused more damage than usual due to mismanagement by a weakened regional elite. This failing of the local administration would have put added pressure on available resources and without a central system to redistribute necessary items, these floods would have caused more destruction than usual in the Oryx

Nome. This situation may eventually have contributed to the collapse of the central state and the strengthening of regional officials once again.

The Overseers of the Eastern Desert title is first recorded during the reign of Amenemhat I at the start of the 12th Dynasty. As recorded in the autobiography of Khnumhotep II, they were given control of the region of the east bank up to *Dw.t Hr*, Horus Mountain. Until this division, Hebenu had been absent from texts at Beni Hasan and it is only with the appearance of *Dw.t Hr*, as well as a reference to the cult of Horus on the White Chapel of Senwosret I at Karnak, that Hebenu reappears. The absence of Hebenu in earlier tombs at Beni Hasan may reflect its long association with kingship and state ideology through its cult. Regional rulers of the First Intermediate Period and early Middle Kingdom had no reason to support cults promoting centralised kingship and instead focused their attention on local cults in the south of the region, such as Hathor of Neferusi and Khnum of Her-wer. It is only with the recentralisation of the Egyptian state under Amenemhat I that the cult regains prominence. Similarly, the cult vanishes again following the expansion of Hyksos influence into Middle Egypt during the Second Intermediate Period and only regains prominence during the 18th Dynasty reign of Amenhotep III.

Though the regional elite are much easier to discover in archaeological evidence, the wider population of the Oryx Nome are visible in the decoration and mortuary models discovered in the cemetery at Beni Hasan. The crafts depicted reflect a largely rural population primarily involved in food production and animal husbandry. As well as this reflection, which has been noted previously (Seidlmayer 2007), the daily concerns of this population relating to their occupations and the dependence on the seasonal cycle of the River Nile can now be better understood. It is this population that had to contend with periods of high or low floods, and at times of weakened regional control had to exercise their own agency in securing food supplies for the coming months. As well as food production, the

rural inhabitants had to reside near to their occupational resources, such as fields, quarries, or water channels for fishing. Their proximity to the Nile doubtless caused problems for them and it is likely that mismanagement during high floods could have caused some destruction of domestic areas. Modern perceptions of sedentary lifestyles affording a permanent place to reside are not accurate for ancient periods. It was common for homes to be damaged during flooding and for families to rebuild or move entirely. This resulted in settlement migration, largely unplanned by central authorities (Graves 2013: 80). Similar agency on the part of the population can be seen at Memphis (Davies and Friedman 1998: 42-43) resulting in elongated east-west shaped tell mounds, a number of which can be seen in figure 3.23.

These families were also probably dynastic in nature, with many skills being passed through family lines. One such area that this is more apparent than others is in the artistic motifs of the Oryx Nome. Copying from one tomb to another, the presence of a pattern book or a specific art school are all possible ways that specific motifs appears across tombs. Most notably, the example of an artist being trained which appears in the tomb of Ni-ankh-Pepi at Zawiet Sultan and then again in the tomb of Bakt III [BH 15] at Beni Hasan, which has been discussed in depth by Lashien (2010).

The varied and extensive local community residing in the Oryx Nome during the Middle Kingdom left little of their individual characters to discover outside of their highest elite. However, the landscape that they left behind is the key to their discovery. A dynamic environment that challenged them daily but a land that, if managed correctly, could be prosperous. They imbued this land that they inhabited with meaning and memory (see Blue Spruce and Thrasher 2009 for ways in which Native American groups created landscapes of meaning and memory) in a way that differentiated their cultural landscape from any other.

7.5 Next steps

The Oryx Nome was selected to test the methodology proposed in chapter 2 due to its lack of settlement remains in the central floodplain. Figure 3.25 has already indicated that a number of koms exist within this area, but that all of them are now occupied by either settlements or modern cemeteries restricting traditional methods of excavation. After the study outlined here, it is possible to prioritise a number of these sites for further investigation, particularly Garris, Mantut, El Anbage and the west bank opposite Zawiet Sultan. The next steps would be to create a GIS of this region, recording accurate elevations of each kom and the orientation of its outline in modern street plans. Once this was completed, experimental coring at the edges of the mounds would provide confirmation of previous water channels and give a more confident indication of date ranges for when these sites were occupied in antiquity. This survey would complement the surface survey already conducted by Kessler (1988) and begin to add a chronological depth to the study provided here.

The phenomenological methodologies proposed by Hamilton and Whitehouse (2006) could be utilised to better understand the lifestyles at those sites already confirmed by traditional archaeological techniques. Viewsheds taken from sites such as Beni Hasan and Zawiet Sultan would serve to build up an impression of the human experience of these locations and the challenges faced by those that lived or worked there. This region, particularly the evidence from Beni Hasan, would provide an exceptional area in which to test new phenomenological methodologies, particularly if the surrounding environment of quarries and desertscapes was incorporated into the study.

This study has been a reminder that the stories of many ancient Egyptians remain locked beneath the floodplain and the lives of modern Egyptians that live there today. These are the people forming new cultural landscapes over the palimpsests of those that came

before. Although landscapes are personal and different, each one can be shared with a cultural community – it is these relationships that this study has investigated to provide a holistic impression of the Oryx Nome as an Egyptian cultural landscape of the Middle Kingdom.

APPENDIX A: PLACE NAMES MENTIONED IN THE TEXT

Name	Latitude	Longitude
Abu Qurqas	27° 55' 49.8494"N	30° 50' 16.571"E
Abyuha	27° 57' 57.1508"N	30° 49' 51.0793"E
Balansura (necropolis)	27° 54' 19.2192"N	30° 40' 50.5777"E
Balansura (modern village)	27° 55' 15.3246"N	30° 41' 48.2817"E
Beni Ahmed	28° 2' 33.4408"N	30° 46' 8.2199"E
Beni Ebeid	27° 57' 8.7065"N	30° 46' 52.1738"E
Beni Hasan (necropolis)	27° 55' 47.3372"N	30° 52' 30.1322"E
Beni Hasan el-Shoruq	27° 54' 14.3935"N	30° 51' 30.2653"E
Beni Khaled	27° 50' 29.7116"N	30° 44' 21.85"E
Beni Khiyar	27° 58' 35.9442"N	30° 42' 19.7987"E
Bihdal	28° 6' 46.7225"N	30° 42' 3.4995"E
Damshir	28° 8' 55.9169"N	30° 41' 59.3667"E
Deir Abu Faneh	27° 50' 50.4312"N	30° 41' 54.8091"E
Deir Abu Hinnis	27° 47' 18.8403"N	30° 54' 9.2409"E
Deir Attiyeh	28° 0' 54.7185"N	30° 43' 54.0408"E
Deir el-Bersha (necropolis)	27° 45' 4.4758"N	30° 55' 4.5115"E
Dimshaw Hashim	28° 1' 22.5285"N	30° 42' 37.3339"E
El-Anbage	27° 55' 14.6679"N	30° 48' 46.1141"E
El-Ashmunein	27° 46' 55.048"N	30° 48' 9.576"E
El-Birbah	27° 56' 42.4478"N	30° 44' 21.232"E
El-Hawarteh	28° 9' 37.4284"N	30° 45' 45.4705"E
El-Hisaniyeh	27° 55' 11.9165"N	30° 44' 13.0051"E
El-Karm	27° 57' 0.9064"N	30° 51' 14.5068"E
El-Mahras	27° 49' 41.0961"N	30° 47' 53.2767"E
El-Minya	28° 5' 29.5483"N	30° 45' 38.7886"E
Ezbet Bushra Hanna	28° 12' 22.2595"N	30° 45' 16.773"E
Ezbet el-Kom el-Ahmar	28° 10' 28.6261"N	30° 38' 59.8819"E
Ezbet Eshak Barsoum	27° 57' 40.5713"N	30° 48' 38.2348"E
Fraser tombs	28° 9' 44.8922"N	30° 46' 37.2071"E
Garris	27° 54' 55.9443"N	30° 45' 39.0203"E
Hur	27° 51' 33.5379"N	30° 44' 0.9931"E
Idmu	28° 9' 1.9787"N	30° 40' 52.1227"E
Istabl Antar (Speos Artemidos)	27° 54' 15.4185"N	30° 52' 21.4225"E
Itlidem	27° 52' 28.9208"N	30° 47' 58.0661"E
Kafr el-Fayalah	27° 56' 35.0096"N	30° 43' 2.3622"E
Kom Beni Daoud	27° 57' 46.3708"N	30° 47' 45.7064"E
Kom el-Ades	27° 54' 53.2139"N	30° 44' 6.3618"E
Kom el-Ahmar (north of Idmu)	28° 9' 32.1844"N	30° 40' 13.4989"E
Kom el-Mahras el-Bahari	27° 59' 21.04"N	30° 46' 53.6415"E
Kom el-Rahaleh	27° 51' 33.6745"N	30° 49' 8.5159"E
Kom es-Zohayr	27° 58' 51.4347"N	30° 48' 30.2397"E
Kom Mesmar	27° 58' 6.1079"N	30° 42' 34.8813"E
Kom Mouageh	27° 58' 45.4527"N	30° 43' 40.1363"E
Manhari	27° 56' 43.7314"N	30° 50' 5.6019"E
Mansafis	28° 0' 16.1859"N	30° 49' 1.3705"E

Mantut	27° 54' 44.4831"N	30° 44' 49.157"E
Maqusah	28° 4' 13.3907"N	30° 45' 55.4355"E
Minchat Dabes	27° 54' 29.9893"N	30° 49' 17.0904"E
Naga Sheybah	27° 49' 44.7297"N	30° 51' 11.0692"E
Nazlet Beni Ahmed Sharkheya	28° 2' 55.3355"N	30° 48' 4.7866"E
Nazlet el-Awam	28° 2' 22.0336"N	30° 49' 21.6094"E
Nazlet el-Daoudiyeh	28° 8' 43.7929"N	30° 46' 11.4643"E
Nazlet Hussein Ali	28° 8' 11.1653"N	30° 46' 7.2544"E
Nuerat	27° 57' 29.6055"N	30° 52' 50.1393"E
Qalandul	27° 48' 46.2832"N	30° 49' 55.5983"E
Qasr Hur	27° 51' 25.5815"N	30° 43' 42.8013"E
Ridah	28° 0' 41.727"N	30° 47' 21.9914"E
Saft el-Khammar	28° 1' 58.1356"N	30° 41' 18.889"E
Saqiyet Moussa	27° 52' 0.2401"N	30° 48' 55.0748"E
Sawadeh	28° 4' 39.5506"N	30° 47' 20.1375"E
Sheikh 'Ibada	27° 48' 28.8814"N	30° 52' 37.9342"E
Sheikh Timai	27° 51' 54.1808"N	30° 50' 43.2987"E
Tahnasha	28° 1' 47.7032"N	30° 45' 2.2891"E
Tallah	28° 4' 42.5495"N	30° 43' 38.8231"E
Tihna el-Gebel	28° 11' 3.7063"N	30° 46' 34.6"E
Tuna el-Gebel (necropolis)	27° 44' 10.2949"N	30° 42' 15.666"E
Zaafraneh	27° 54' 9.8142"N	30° 49' 28.1368"E
Zawiet Sultan	28° 2' 40.9403"N	30° 49' 48.5302"E

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ONLINE RESOURCES

Meteorological data sets: www.worldclimatecharts.com

QGIS: www.qgis.org

Google Earth: www.google.com/earth

Description de l'Égypte: <http://descegy.bibalex.org/> (provided by the International School of Information Science (ISIS) research institute at the Bibliotheca Alexandrina).

Dayr al-Barsha Project: www.dayralbarsha.com

Looting report – <http://www.dayralbarsha.com/node/268> [last accessed 25th March 2016]

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Destruction of Malawi Museum report –

<http://www.unesco.org/new/en/culture/themes/illicit-traffic-of-cultural-property/emergency-actions/egypt/warning-looting-of-the-malawi-national-museum/>
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