

THE MODERNIZATION OF THE OTTOMAN NAVY DURING THE REIGN OF
SULTAN ABDÜLAZİZ (1861-1876)

by

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ABSTRACT

The main focus of this study is to examine the modernization of the Ottoman navy during the reign of Sultan Abdülaziz, exploring naval administration, education, and technology. Giving a summary of the transformation of shipbuilding technologies and bureaucratic institutions of the Ottoman naval forces between 1808 and 1861, it analyses the structure of the Ottoman navy, its level of development in comparison to previous periods of time, and the condition of the vessels making up the naval fleet from 1861 to 1876. It also intends to evaluate the character of existing administrative structures at the outset of Abdülaziz's reign in 1861 and the nature of subsequent changes, including structural reorganization of the Imperial Naval Arsenal, the Ministry of Marine, and the Naval Academy, as well as advancements in military training and seafaring; all within the context of the impact of these changes on the military, political, and economic condition of the Empire during the reign of Sultan Abdülaziz.

To my beloved family

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ABBREVIATIONS

ADM	:	Admiralty
A.MKT.MHM	:	Sadaret Mektubi Kalemi Mühimme Defterleri (Registers of Chief Secretariat of the Office of Grand Vizier)
A.MKT.NZD	:	Sadaret Mektubi Kalemi Nezaret-Devair Giden Defterleri (Registers of Correspondence between the Office of Grand Vizier and Other Departments)
AYN.d	:	Bab-1 Ali Evrak Odası Ayniyat Defterleri Bahriye (Registers of Correspondence between the Ministry of Marine and the Office of Grand Vizier)
BOA	:	Başbakanlık Osmanlı Arşivi (Prime Ministerial Ottoman Archive)
DMA	:	İstanbul Deniz Müzesi Komutanlığı Arşivi (Istanbul Naval Museum Commandership Archive)
Ed	:	Edited by
FO	:	Foreign Office
HRT.h	:	Haritalar (Maps)
ISL	:	Islahat (Registers of Naval Reforms)
İ.DH	:	İrade – Dahiliye (Decrees for the Interior Ministry)
İ.HR	:	İrade – Hariciye (Decrees for the Foreign Ministry)
İ.MMS	:	İrade – Meclis-i Mahsus (Decrees for the Special Council)
MF.MKT	:	Maarif Nezareti Mektubi Kalemi (Registers of the Chief Secretariat of the Ministry of Education)

MHS	:	Muhasebe (Registers of Finance Office of the Navy)
MKT	:	Mektubi (Registers of the Chief Secretariat of the Navy)
MKP	:	Mektepler (Registers of Naval Schools)
MPI	:	Maps and Plans
Pr	:	Prepared by
PRO	:	Public Record Office
ŞUB	:	Şura-yı Bahriye (Registers of the Naval Council)
TDVİA	:	Türk Diyanet Vakfı İslam Ansiklopedisi (Turkish Religious Foundation, Encyclopaedia of Islam)
TNA	:	The National Archives of Great Britain
Tr	:	Translated by
TRS	:	Tersane (Registers of the Arsenals)
USA	:	United States of America
Vol	:	Volume
WP	:	Working Paper

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INTRODUCTION

Throughout the nineteenth century, warship design underwent a slow transition from wooden sails to modern capital ships by the impact of technology on naval warfare. As the decade progressed after the Battle of Navarino in 1827, warships running on steam power were widely adopted by the major navies, and the rise of ironclads in the late 1850s, marked the turning point both in warship construction and naval strategy as the dominant element of battle at sea.

The stages of this century-lasting transformation on the Ottoman Empire are fairly well known to scholars. They include the age of sail that had characterized the period prior to 1827, the supremacy of the combination of wood and steam lasting until the mid-1850s and the rise of torpedo and later capital ship in the pre-dreadnought age between 1878 and 1905. This led the era of ironclads in the Ottoman navy—from late 1850s to the Great Eastern Crisis of 1878—to remain shrouded in mystery, even though the Ottoman Navy emerged as the third greatest naval power of Europe by 1878. For this reason, it is a must to evaluate the naval strategy and tactics developed under the influence of technological innovations, by devoting special attention to the Ottoman naval modernization in terms of administration, education, and technology in the era of ironclads, which we intend to analyse in this study. Being regarded as the climax of the modernization attempts accelerated from the declaration of the Imperial Edict of *Gülhane*, special focus of our work will be given to the reign of Sultan Abdülaziz and his efforts to execute the transition of warship design from wood to iron and to develop a new naval system inspired by foreign agents, particularly Britain.

The principal reason for our emphasis on this period in particular derives from the significant point that even though the reign of Sultan Abdülaziz has widely been regarded as the period during which the most significant breakthroughs were made on the field of maritime development in the entire history of the Ottoman Empire, no academic work has been written on the topic relying on the intensive utilization of both Turkish and British archives.¹ Despite placing the fleet among Europe's leading naval powers, the era of the Sultan Abdülaziz was concluded by the treasury's insolvency and the modernized navy was withdrawn to the Golden Horne and left to decay until the 1890s. This contradiction leads this period to be considered as an era of both success and failure, which increases the significance of the topic as a challenging area of research. For this reason, a clear analysis is needed to enlighten the underlying reasons of the failure of the modernization attempts, which can be verified by archival evidence.

As a result, many questions remain unanswered. What were the political forces that required the Ottomans to carry out a naval reformation programme from the late eighteenth century to the end of the Empire? Why did Britain play a significant role in providing assistance to Ottoman Empire, particularly after the arrival of *Tanzimat*? How was the naval administration organized after the permanent establishment of the Naval Board in 1845 and which auxiliary units were added to the existing administrative system in the reign of Sultan Abdülaziz? What was the driving force for the

¹ On taking a general look at the current historiography, it can be seen that most of the academic works dealing with the Ottoman Navy focus mainly on the sixteenth century, when the Ottomans effectively guaranteed their dominance in the Mediterranean and the Black Sea, which was further consolidated by the Prevesa naval victory of 1538. In contrast to this, a few academic works have been written on the state of the navy in the *Tanzimat* reform era, rendering it to be a developing area of research, even though military reformation was conducted by the Ottoman Sultans from the late eighteenth century as the main solution to cease the retrogressive affairs of the state and gain back the territories lost in previous decades. For this purpose, a naval-oriented reform policy was followed by Sultan Selim III (1789-1807), Sultan Mahmud II (1808-1839), Sultan Abdülmecid (1839-1861) and Sultan Abdülhamid II (1876-1909), which have been studied by Zorlu, 2008; Düzcü, 2012; Bal: 2010 and Batmaz, 2002. By focusing on the naval modernization of Sultan Abdülaziz, our work intends to fill this gap to provide consistency for Ottoman naval historiography throughout the nineteenth century.

abolishment of the office of *Kapudan Pasha* and its replacement with new administrative system developed with the establishment of the Ministry of Marine? How significant was the role of British advisors commissioned in the Ottoman Navy in this new structuring? How efficient was the modernized navy during the Cretan Insurrection? How long did the naval service take and how were naval personnel recruited? What were the main difficulties that were encountered by marines during their navy service? To what extent was the technical training improved and what sort of measures did the administrative units take to prevent the continuation of the dependency on the West? Was the Ministry of Marine able to train adequate number of officers to be commissioned both in the warships and Imperial arsenals? How effective were the technological innovations relating to armour production and naval armament in promoting naval modernization and how was the navy expanded? What were the main reasons leading Sultan Abdülaziz II to change the naval policy of the Empire and what caused him to withdraw the recently-constructed armoured fleet from active service for a period of nearly twelve years?

Accordingly, the primary concern of this study has been to analyse why the naval modernization carried out in Sultan Abdülaziz's reign proved insufficient to create an efficient naval force. In this context, structures of the Ottoman Navy, the Imperial Naval Arsenal, the Ministry of Marine and the Naval Academy have been evaluated in military, political and financial aspects and depending on this, the periodization has been determined to encompass the period between 1861 and 1876. In addition to this, a general assessment of the naval reforms implemented in the age of sail and steam between the Battle of Navarino and the Crimean War will be provided to leave the reader with a better appreciation of the political reasons for the need of the

Empire for naval modernization and each chapter regarding administration, recruitment of marines, training of officers and technology will have a short introductory part, explaining the development of naval units in the *Tanzimat* reform era, which will enable the reader to understand what needed to be reformed within the existing system inherited from the previous periods. It shall be useful to recall that the regulations prepared by the administrative units for the Ministry of Marine, the Naval Academy and the Imperial Naval Arsenal are our only source to see the primary tasks and functionality of the newly established units and practices in the reign of Sultan Abdülaziz and most of them have been used for the first time by this study. For this reason, the detailed information given regarding the content of each regulation in the thesis's chapters, will enable us to follow the amendments made on the structuring of the naval units between 1861 and 1876 and to distinguish the newly implemented practices from the older ones, which also provides the most accurate and chronological information for readers.

Literature Review

When the available literature referring to the naval modernization of the Ottoman Empire in the nineteenth century is evaluated as a whole, it can be found to be far from satisfactory, in comparison to the quality of works that have been written until today. The main issue arising pertaining to the exploration of naval historiography become apparent when trying to access and find accurate classifications of the primary and archival sources, which employ a specialized naval terminology that not all researchers are familiar with—especially when it comes to the delicate task of accurate translation. Books and articles pertaining to the history of the Ottoman navy were often written by

the officers commissioned or retired from the Turkish Naval Forces, which creates a further difficulty during research. Many of the officers were semi-academic or non-academic, meaning works drawn up by such researchers do not consider the importance of citing sources, giving references or compiling a comprehensive bibliography.² Finally, the low quantity of primary sources and the ever-repeating nature of the secondary literature may be considered as another limitation, equating to the continuing difficulties experienced by researchers.

For our research, we will start the assessment of the available literature with the archival sources, which have the most valuable data for this study. These were obtained from the Prime Ministerial Ottoman Archive, the Istanbul Naval Museum Commandership Archive, and the National Archives of Great Britain. During the sixteen year reign of Sultan Abdülaziz, one of the most remarkable changes implemented was the abolishment of the Office of Kapudan Pasha and the establishment of the Ministry of Marine in 1867, which gave a more institutionalized framework to naval affairs. Therefore, while the naval documents dated until 1867 are kept in the Prime Ministerial Ottoman Archive, the rest dated after 1867 are mainly preserved by the Istanbul Naval Museum Commandership. As will be mentioned in the main body of this dissertation, acceleration can be observed in the implementation of the naval reforms after the foundation of the Ministry, and for this reason, the catalogues within the body of the Istanbul Naval Museum Commandership Archive include the most important archival data for our research. At this point, it shall be useful to reiterate that accessing most of the classifications preserved in this archive is not permitted, and most of the documents we used for our research were obtained by special

² Zorlu, 2004: 299.

permission. In other words, they have been used for the first time in this study. Among them, the *Şura-yı Bahriye*³ (the Naval Council) classification became a prominently used source, as it contains valuable data to show the functioning of the naval administration and the decision-making mechanism between the Ministry and the members of the Naval Board. It can be also observed that all the new regulations prepared by the Naval Board regarding the administration of the Ottoman Navy were included in the *defters*, preserved by the *Şura-yı Bahriye* registers. The catalogue of *Mektepler* (the Schools) focusses on the issues regarding the structuring and the operation of the naval training, which provides broader knowledge on the selection of naval cadets; the departments of the Naval Academy; the training specially arranged, and advanced for the Ottoman navy during the same period. Fiscal registers—called the *Muhasebe* classification—were useful to have a better understanding on the financial management and the distribution of the allocations reserved for the naval treasury from the state's budget. The process to procure raw materials, necessary for the naval works to be carried out in the Imperial arsenals, can be also observed from the documents presented by the fiscal registers. In addition to those, *Tersane* (the Arsenal) and *Mektubi* (the Chief Secretariat) registers shed light onto such matters as the manufacturing and construction activities, and the division of workforce commissioned in the Imperial Naval Arsenal.

Contrary to the data preserved by the abovementioned catalogues, registers within the body of the Prime Ministerial Archive do not have chronologically ordered recordings for our research. Among them, decrees for the *Dahiliye Nezareti* (the Interior Ministry), papers of the *Amedi Mektubi Kalemi Mühimme* (the Chief Secretariat),

³ The name of the Naval Board, which was the main unit to negotiate all the affairs relating to the Ottoman navy in the reign of Sultan Abdülaziz, was amended as *Şura-yı Bahriye* on 26 July 1877 (Düzcü, 2009: 4).

Ayniyat Defters which included the correspondence between the Ministry, and the Office of Grand Vizier and Decrees for the *Meclis-i Mahsus* (the Special Council), were invaluable as they contained important information concerning the advancements observed in the naval service and recruitment. To observe the effect of the British mission over the naval modernization of the Ottoman Empire, the Admiralty records preserved by the National Archives of Britain provide chronologically ordered information regarding the name and profession of British officers, and workers who entered the service of the Ottoman navy during the same period. The data obtained from the registers of the Board of Admiralty also includes comments and correspondence between the Foreign Office and the British Embassy in Istanbul, which gives insight into the British point of view on the subject of the development of the naval schools, naval industry, and shipbuilding activities.

The most important primary sources of this study were found to be the memoirs of officers commissioned in the Ottoman navy; papers published between 1861 and 1876 and books written by the officers regarding every aspect of the naval history of the Empire. For our research in the first category, we examined *Sketches From My Life* written by Augustus Charles Hobart Hampden—known as Hobart Pasha—who entered the service of the Ottoman navy in 1867 and played an active role in the implementation of naval reforms as the president of the Naval Reforms Commission. We also referred to *Spunyarn From the Strands of a Sailor's Life Afloat and Ashore, Forthy Seven Years Under the Ensigns of Great Britain and Turkey*, written by Henry Felix Woods Pasha as the navigation instructor of the Naval Academy, which included his personal observations on the development of naval training, and also the British influences over the Imperial Naval Arsenal. In addition to those, the memoirs of Süleyman Nutku Bey

presented in the books called *Bahriye Kur'a Neferi* and *Süleyman Nutki Bey'in Hatıraları*, made apparent the difficulties in the implementation of naval modernization, particularly in the practical training of cadets, between 1873 and 1874 from the personal observations of a naval student. Being the first military newspaper of the Ottoman Empire, *Ceride-i Askeriye* is a valuable source for all researchers as all kinds of official and unofficial activities carried out by the army and navy forces of the Empire were recorded week-by-week in this official army gazette. In the last category, *Bahriyemiz Tarihinden Filasalar*, written by Safvet Bey—a naval officer in the reign of Sultan Abdülhamid II—according partially to official documents explains the early development of the naval administration and also the preparatory phase of naval training. The second volume of Mahmud Şevket Pasha's *Osmanlı Teşkilat ve Kıyafeti Askeriyesi* is another important primary source dealing with the development phases of the naval service and the application of the conscription law specially arranged for the land army to the naval recruitment and its consequences.

As for secondary sources, we referred to İsmail Hakkı Uzunçarşılı's *Osmanlı Devleti'nin Merkez ve Bahriye Teşkilatı* and İdris Bostan's *17. Yüzyılda Tersane-i Amire* are widely references by naval historians who intend to examine the structuring of the naval organization in the classical period. In particular, Bostan's book is widely used as a general reference book for dealing with the types and features of vessels in the age of sail, the administration of the Imperial Naval Arsenal, the materials used in the shipbuilding activities, and the equipment necessary for the usage of crews on board. Furthermore, Afif Büyüktuğrul's *Osmanlı Deniz Harp Tarihi ve Cumhuriyet Donanması* and Nejat Gülen's *Şanlı Bahriye 1773-1973* are semi-academic works, which were evaluated in the first phase of our research to gain an understanding into

general framework of the subject. Covering mainly the evolution of naval administration, *Bahriye’de Yapılan Islahat Hareketleri ve Bahriye Nezareti’nin Kuruluşu*, written by Ali İhsan Gencer, presents useful information to follow the development phases of the naval decision-making mechanism. Although Gencer’s work gives some details of the advancements observed in naval training and technology, its content mainly deals with the period before Sultan Abdülaziz’s accession to the throne, as can be seen in its last chapter that covers the naval administration between 1861 and 1867. This chapter consists largely of a summary giving the names and short description of the administrative units. For this reason, the main benefit of this research is that it provides an opportunity for our work to make a comparison between the new administrative system established in the reign of Sultan Abdülaziz and the institutional structuring of previous periods. In addition to this, the same author’s article, titled *Osmanlı Bahriyesinde Islahat ve Bahriye Neareti’nin Kuruluşu*, provides a short summary of the aforementioned book, but it does not include detailed information for our research period.

Among other works specifically written to examine the Ottoman naval forces from 1861 to 1867, Emin Yakıtıl’s article titled *Abdülaziz Dönemi’ne Dair Bir İnceleme* summarizes the effect of the state’s political conjuncture on the formation of the naval reforms and, a small-scale list of the vessels, which constituted the naval fleet and the main reasons for the failure of the Sultan Abdülaziz’s naval policy according to the information provided by the secondary sources. Celalettin Yavuz’s *Sultan Abdülaziz Donanması-Yelkenli Teknelerden Buhar Makineli Gemilere Geçiş, Bitmeyen Reform İhtiyaçları* is another article which was written for the short evaluation of the phases of naval modernization and the process that dragged the treasury into bankruptcy. In

Sultan Abdülaziz'den I. Dünya Savaşı'na Kadar Osmanlı Donanması, written by Mehmet Beşirli, the condition of the naval fleet is briefly mentioned based on the information obtained from the secondary literature. Tuncay Zorlu's article titled *Bahriye Nezareti'nin Kuruluşu ve Abdülaziz Dönemi'nde Osmanlı Denizciliği* is another summary of the secondary sources regarding the foundation of the Ministry of Marine, the naval training and some technological innovations carried out in the Imperial Naval Arsenal.

Enver Ziya Karal's *Osmanlı Tarihi, Islahat Fermanı Devri (1861-1876)* is a volume of a well-known general reference book published by the Turkish Historical Foundation, and focuses mainly on the political developments. In this work only a few pages were reserved for the development of the Ottoman navy in the same period. It contains figures regarding the number of the vessels that constituted the Ottoman navy, and the number of personnel commissioned in the naval fleet presented in the relevant section, leading it to be widely used by many researchers despite the fact that a reference—which would show where this information derived from—was not given by the author. Based mainly on the secondary literature and French and British archival documents, Daniel Panzac's work titled *La Marine Ottomane: De l'apogée à la chute de l'Empire (1572-1923)* is an important reference book dealing with the maritime history of the Ottoman navy between the sixteenth and twentieth centuries. In the relevant section of chapter eight, the book presents summarized information on the modernization of the Ottoman navy in terms of advancements observed in the naval technology, and also training provided for the naval officers. Another important reference source is *The Ottoman Steam Navy 1828-1923*, written by Bernd Langensiepen and Ahmet Gülerüyüz, which examines the technological characteristics of

warships and steamers commissioned in the Ottoman Navy with visual materials. Tuncay Zorlu's *Innovation and Empire in Turkey: Sultan Selim III and the Modernization of the Ottoman Navy* mainly deals with the development in naval technology, such as the adaptation of copper sheathing of the hulls of vessels; naval equipment introduced to the traditional Ottoman shipbuilding methods and its application; the primary materials necessary for the construction activities, and the construction of the first drydock in the Imperial Naval Arsenal based on rich archival sources.

The age of steamships in the Ottoman navy started with the introduction of steam power in Ottoman shipbuilding technology, after the destruction of the Ottoman squadron anchored in the Port of Navarino in 1827. In this area of research, Nurcan Bal's master's thesis titled *XIX. Yüzyılda Osmanlı Bahriyesi'nde Gemi İnşa Teknolojisinde Değişim: Buharlı Gemiler Dönemi* and Levent Düzcü's PhD dissertation titled *Yelkenliden Buharlıya Geçişte Osmanlı Denizciliği (1825-1855)* became important academic works, which mainly examine the type and quantity of steamers commissioned in the naval fleet and the application of steam power to shipbuilding technology. Another such useful PhD dissertation is Şakir Batmaz's *II. Abdülhamid Devri Osmanlı Donanması*, which focuses on the institutional development of the naval administration and training in the same period. This work is an important source in helping to understand Sultan Abdülhamid's approach on the functionality of the Ottoman navy right after the implementation of the comprehensive naval modernization carried out in the period of Sultan Abdülaziz.

Having evaluated the available literature for our research, our work aims to analyse the modernization of the Ottoman navy in the reign of Sultan Abdülaziz,

particularly by the intensive utilization of archival sources preserved in the aforementioned Turkish and British Archives. Although key arguments will be presented by separate introductions at the beginning of each chapter, it will be useful to give a brief description of thesis's chapters for informing the reader on the structure of the study. Accordingly, the first chapter starts with a general assessment of the naval reformation in the age of sail and steam, and the effects of the political developments between 1808 and 1861 to evaluate the need of the Empire for naval modernization.

As the existing system was subjected to a series of amendments after the establishment of the Ministry Marine, we will examine the naval administrative system of the Sultan Abdülaziz's reign in two periods as 1861-1867 and 1867-1876. Presenting an evaluation of the naval administrative system, which was gradually improved in the *Tanzimat* reform era, the administrative reforms which deeply affected the reorganization of the Navy between 1861 and 1867 will be analysed in the second chapter. In the third chapter, second phase of the naval administration and the structuring of the auxiliary units will be examined by focusing on the abolishment of the Office of Kapudan Pasha and the establishment of the Ministry of Marine. Considering the effects of the British advisors commissioned in the Ottoman navy in the same period, the role of the British mission over the naval modernization will also be detailed in the same chapter.

The main focus will be given to the naval service and the recruitment of marines in the fourth chapter, which covers also the development of technical education, and the naval industry corps established as a solution for decreasing the number of foreign personnel employed in the manufacturing and construction stations in the Imperial Naval Arsenal.

In the fifth chapter, the modernization of naval education will be examined by focusing on the Naval Academy and developments in the required training of naval officers. Giving a summary of the existing training methods inherited from the previous period, conditions for the student admission, the number of students and alterations made in the student placement quotas from 1861 to 1876, the length of education, the curriculum of the Naval Academy and the practical training of cadets will be detailed by separate sections.

In the final chapter, which covers firstly the organization and structure of the Imperial Naval Arsenal, the construction of dry dock number one, the foreign and local workforce and their working conditions together with the manufacturing and construction stations, the rise of iron in warship design and its impact on the modernization of the naval fleet, the cost of the naval modernization and the state of the navy after the Great Eastern Crisis will all be evaluated.

CHAPTER 1. THE EVOLUTION OF THE OTTOMAN NAVAL MODERNIZATION UNDER THE INFLUENCE OF POLITICAL DEVELOPMENTS (1808-1861)

Introduction

In the nineteenth century, the most important development affecting the maritime policy of the Ottoman Empire was the Industrial Revolution and the beginning of the usage of steam power in shipbuilding. With the arrival of the steam engine, which was invented by James Watt in 1775, industrialization movements began to spread rapidly from Britain throughout the globe. As a result of this, the necessity for fast ships with higher load-bearing capacity increased. They became crucial in marketing manufactured products, and ensuring the transport of raw materials such as cotton, coal, and iron for their use in factories. Eventually, the steam engine became available in the field of maritime transport, and the first steamship was built by an American engineer, Robert Fulton, in 1806.⁴ Toward the end of the first quarter of nineteenth century, they sailed mostly for commercial purposes and transferred to the military marine after the 1830s. Alongside the continuing construction of sailing ships, mounting of steam engines onto the existing ships or purchasing and building of new steamships became popular. These developments were followed by the rise of iron in warship design in the late 1850s, leading wooden vessels running on wind power to be replaced by armoured vessels running on steam power, which gave rise to an increasing need for naval education, technological infrastructure, and financial support. In short, the naval forces needed modernization.

⁴ Bal, 2010: 1-2; Arı, 2009: 125-126.

Throughout the century, it was a common procedure to purchase steamships from the dockyards of Britain for the countries that preferred to install their traditional guns on the purchased ships. The states, who wanted to build the steamships in their own dockyards, also needed to obtain British support. Therefore, Britain, who created the most advanced military-commercial fleet and carried a great interest by providing technical materials and qualified personnel for the other countries, was undoubtedly the most developed country in the age of steam and iron. Because of this, it also obtained the opportunity of monitoring the naval affairs of the rival states and the development of their shipbuilding technology.

Under these circumstances, the Ottoman Empire tried to follow these rapid developments of the nineteenth century by modernizing its navy and merchant maritime fleet in terms of administration, technology, and education. The driving force of this awareness was the state's declining integrity and the Ottoman Sultans' determination that their naval force should level up with the navies of Britain, France, and Russia so as to stop the retrogressive affairs of the state and gain back the territories lost in previous decades. For this purpose, a naval-oriented reform policy was followed by Sultan Selim III, Sultan Mahmud II, and Sultan Abdülmecid until the reign of Sultan Abdülaziz.

The Ottoman Empire did not fully appreciate the necessity to modernize military technologies, in accordance with the purpose of protecting their national unity, until decades after their European counterparts. The reformist approach followed since the 1730s proved that the superiority of the West in terms of science and technology was eventually acknowledged by the Ottoman Sultans. It became clear that meeting the desperate needs of the Empire to modernize its army and navy was fully dependent on western aid received according to each state's political status in foreign affairs.

Accordingly, the primary argument of this chapter is to analyse the need for the naval modernization, and the reasons for the unstable foreign approach of European powers in providing assistance to the Ottoman naval forces, which in turn will explain the intense British influence on the naval modernization carried out in the reign of Sultan Abdülaziz. Furthermore, the development phases of the system established in the period of Sultan Mahmud II and Sultan Abdülmecid will be examined by scrutinizing the technological, administrative and educational reforms implemented both in the age of sail and steam to have a better understanding how they contributed to the Sultan Abdülaziz's comprehensive modernization programme.

The Evolution of the Ottoman Naval Modernization under the Influence of Political Developments (1808-1861)

As is well known, the *Nizam-Cedid* refers to a reform programme intended to bring to an end the political decline of the Empire, which was triggered after the Ottoman-Russian War of 1768-1774, through taking advantage of European technical superiority.⁵ It was carried out by Sultan Selim III, and aimed to making military adjustments in a narrow sense and political, social and cultural innovations in broader terms. Selim III ascended the throne at the start of the French Revolution and he began to realize that the nationalist ideology, which was being spread in Europe at the same time, would threaten the Ottoman borders. Selim was influenced by the ideas expressed in the reports written by Ebubekir Ratip Efendi, who was sent to Vienna as an Ottoman envoy in 1792. Ebubekir Efendi thought that a new single nation state model, combined with the idea of one language, one religion, and one nation, would lead to a great war

⁵ Karal, 1988: 29-30.

that would involve Europe as a whole, and would result in a possible Austro-Russian territorial expansion against the Ottomans' interest in the Balkans.⁶ In his reports, the main reason for the outbreak of the revolution was specified as the deterioration of order after the French treasury's bankruptcy, and for this reason he emphasized that an intended increase in the state's budget could not be achieved without providing the security that was directly connected with making progress in agriculture, commerce and industry. To ensure internal and external security he pointed out the importance of having a strong military power.⁷

This main concept he presented in his well-known *layiha* also explains why the Ottomans focussed mainly on military reforms during the innovation period, which started at the end of the eighteenth century and continued until the end of the Empire. The failure of the Ottoman army in the Ottoman-Austrian War in 1787 and Ottoman-Russian War in 1792 highlighted the desperate need of the Empire for a powerful army and a strong navy, which could only be achieved through an aggressive programme of reform. For this reason, the period of Sultan Selim III can be seen as the starting point of the proper recognition of western superiority, and arguably the first Ottoman Sultan who recognised the urgent need to modernize the Ottoman military forces against the increasing Russian threat coming from the north.

As a result of this innovative approach, the newly constructed Ottoman Navy consisted of 20 ships of the line, 11 corvettes and 13 frigates, all amounting to 44 towards 1803. However, the first and most comprehensive reform programme of Ottoman history, the *Nizam-ı Cedid*, was a short-lived step due to the negative impacts of the State's internal and external problems. The French invasion of Egypt in 1798, in

⁶ Yeşil, 2007: 291, 300.

⁷ Faroghi, 2014: 25; Arıkan, 1994: 278; Karal, 1988: 32; Yeşil, 2007: 290, 300-301.

order to control the commercial activities in the Indian Ocean by providing disconnection between Britain and its dominions, led to an Ottoman-Russian alliance over the Black Sea.⁸ On 23 December 1798, Britain also participated in this alliance by sending a British squadron under the command of Admiral Nelson, which destroyed the French navy anchored on Abukir Bay on 1 August 1798.⁹ Furthermore financial difficulties experienced by the subjects due to the campaign led to a negative reception of the Nizam-ı Cedid reforms by all the provinces; Istanbul in particular and subsequent reforms had to be paused for a while. Insurrections in the Balkans occurred with the influence of nationalist thought, causing the existing unrest to increase and eventually Selim III was dethroned and the period of new ordinance came to an end with the Kabakçı Mustafa Riot that broke out on 26 May 1807.¹⁰

Ascending to the throne on 29 July 1808 with the support of the *ayan*¹¹ of Rustchuk, Alemdar Mustafa Pasha, Sultan Mahmud II intended to continue his uncle Selim's reformist policy on naval affairs. For this purpose, he assigned Abdullah Ramiz Efendi as Kapudan Pasha on 23 August 1808. Ramiz Pasha firstly ordered old and useless ships to be decommissioned and started the construction of new vessels. Furthermore, he ordered the execution of Kahvecioğlu Mustafa Captain who acted as the janissaries' agent in collecting tribute from artisans. As a result of these strict measures, a recovery was seen in the Imperial Naval Arsenal, but this also led to an opposition being mounted by a group of officials in the navy.¹²

⁸ Richmond, 2013: 32; Armaoğlu, 2003: 84-85.

⁹ Mustafa Nuri Paşa, IV, 2008: 447-448.

¹⁰ Beydilli, 2009: 422-423.

¹¹ *Ayan* was a term used for the notable people of the provinces who assisted governors to collect the taxes (Pakalın, 1983: 120).

¹² Shaw and Shaw, 1977: 3-4; Ünal, 2008: 583; Avcı, 2014: 172.

This hostility gained intensity, especially after the foundation of the *Sekban-ı Cedid*¹³ army, and resulted in a rebellion raised by the janissaries against the government on 14 October 1808. The rebellious soldiers besieged the Sublime Porte and a part of them was stopped by Alemdar Mustafa Pasha as he committed suicide by exploding the powder kegs in his palace.¹⁴ On 17 October 1808, Kandıralı Mehmet assumed the leadership of the rebels and the Imperial Naval Arsenal and Imperial Armoury of Artillery were captured by his supporters. Kapudan Pasha Ramiz Pasha and naval treasury secretary Moralı Esseyid Ali Efendi fled to Rumelia. The fleet was rescued from burning at the last moment and following the decision to repeal the *Sekban-ı Cedid*, the rebellion was suppressed.¹⁵

Apart from this internal revolt, the Ottoman Empire fell into political and financial decline because of increasing external problems. After losing its position on the Straits following the acceptance of the Treaty of Dardanelles—signed between the Ottoman Empire and Britain on 5 January 1809, confirming Ottoman sovereignty over the Straits—Russia changed its attitude and began to interfere in the internal affairs of the Ottoman Empire under the pretext of defending the rights of Orthodox subjects.¹⁶ The support given by Russia to the Serbians, who rebelled against the Empire in 1801, confirmed that she had already determined this policy as a second plan to attack the Ottoman Empire since the beginning of the century and within the frame of this policy, Russians had previously encouraged the rebellion of Greeks in Morea in 1821. Although the British policy towards the East was to keep the balance between the

¹³ It refers a new army established by the Grand Vizier Alemdar Mustafa Pasha and consisted of trained soldiers. Most of them had been commissioned in the abolished army of *Nizam-ı Cedid* in the period of Sultan Selim III and *Sekban-ı Cedid* army can be seen as its continuation (Karal, 2007: 93).

¹⁴ Câbi Ömer Efendi, 2003: 270-272.

¹⁵ Câbi Ömer Efendi, 2003: 295-297.

¹⁶ Richmond, 2013: 34.

Ottoman Empire and Russia after the end of the Napoleonic Wars, the Greek Revolt caused the possibility of an increase in Russian effectiveness in the Eastern Mediterranean.¹⁷ This led Britain to change their interest on Ottoman land, and they decided to act together with Russia in order to prevent her controlling the revolt independently. Even though this alliance was officially confirmed with the St. Petersburg Protocol of 1826, Tsar Nicolas I sent an ultimatum to Istanbul, demanding the withdrawal of Ottoman troops from Wallachia and Moldavia, and the official recognition of the privileges given to the Serbs with the Treaty of Bucharest by the Sultan. In the meantime, the Ottoman Empire had no land army due to the disbandment of the Janissary corps by Sultan Mahmud II on 15 June 1826.¹⁸ For this reason, she was forced to accept the official confirmation of the Russian protectorate on Orthodox subjects in 1826 by fulfilling the Russian demands about the Christians, whom they claimed were being oppressed in Wallachia and Moldavia.¹⁹ Tsar Nicolas I's attempt to act separately after being an ally of Britain led the St. Petersburg Protocol to be changed into the London Treaty, signed between Britain, Russia, and France on 6 July 1827. On the other hand, Sultan Mahmud II assessed this agreement as interference in Ottoman internal affairs.²⁰

As a consequence of the Greek Independence War, the Empire could not become concerned with the naval issues and Greek sailors formed a large pirate fleet in the Mediterranean Sea. This fleet, which had a great quantity of gunnery and high manoeuvring power, played an active role in the Greek War of Independence. Although the 44-ship Ottoman navy was sent to the Mediterranean in order to prevent the

¹⁷ Dönmez, 2014: 43.

¹⁸ Mahmud Celaleddin Paşa, 1979: 25; Shaw and Shaw, 1977: 20; Karal, 1988: 146-147; Armaoğlu, 2003: 177-178.

¹⁹ Cobden, 1854: 44.

²⁰ Armaoğlu, 2003: 179-180.

activities of the Greek pirates, it failed against the Greek ships which were commanded by more experienced sailors.²¹ The Ottoman Empire, having failed in its efforts to receive support from Europe to aid in the suppression of the rebellion, asked for help from Kavalalı Mehmed Ali Pasha, the governor of Egypt. The revolt was suppressed temporarily with the help of Mehmed Ali Pasha, who was promised the governorship of Crete and Syria in addition to Egypt, by Sultan Mahmud II in 1827. However, the negative response of the Ottoman Empire against the London Treaty of 1827 led to the destruction of the Ottoman-Egyptian Navy anchored in Navarino Bay that amounted to 89 sails; of which two were 84 gun-ships, one a 76 gun-ship, four double frigates, thirteen frigates, thirty corvettes, twenty-eight brigs, five schooners and six fire-brigs, by the combined navy of the allied powers on 20 October 1827.²² Apart from the transport vessels, 60 ships from the Turco-Egyptian Navy were destroyed and approximately 3000 officers and marines were killed after the attack.²³

The Ottoman navy, which was modernized with the efforts of Selim III and Mahmud II, lost their most valuable ships and the most qualified personnel in a mere couple of hours, which was accepted as the last major naval war of sailing ships in history.²⁴ The intense reaction of the Ottoman Empire against the Battle of Navarino resulted in the withdrawal of British, French, and Russian Ambassadors by the end of 1827. This also meant the pause of diplomatic relations of the Empire with these

²¹ Slade, 1945: 24. This event indicated particularly the inadequate training of the naval personnel rather than the deficiencies in shipbuilding technology. Therefore, training would be considered as the priority issue for future reform activities relating to the Ottoman navy.

²² Nutki, 1993a: 147-149; James, 1837: 471-486.

²³ James, 1837: 484-485. The Battle of Navarino can be seen as the victory of British aid to liberalise the Greeks but indeed it was a strategic mistake that would cause an increase in the Russian effectiveness in warm waters. Having realized that, collaboration with Russians in the Mediterranean resulted in a change of the British government which was heavily criticised by the press and the new Prime Minister, the Duke of Wellington removed Admiral Codrington, who was the commander of British squadron at Navarino, from his office (Dönmez, 2014: 46-47).

²⁴ Gencer, 1986: 35-36.

countries, which caused the Ottomans to be trapped in political isolation until the 1830s. The Ottoman Empire, surrounded by seas on three sides, became a power without a navy once again, as had happened previously after the Battle of Çeşme in 1770. On the other hand, the Ottomans took the opportunity to observe the steamships of allied navies which were fast-moving and had high carrying capacity in Navarino. This provided the beginning of the steamship age in Ottoman naval history.²⁵

The first steamship of the Ottoman Navy, called *Süirat*, was purchased from Britain and presented to Sultan Mahmud II by a group of Armenian merchants in 1827.²⁶ Despite Britain seeming to be the most popular centre for purchasing ships and ship equipment, the Ottoman Empire referred to another state to ask for help in shipping because of the strained relations with Britain after the Battle of Navarino. Following the proposal of Captain Koca Hüseyin Pasha, the United States of America willing to develop commercial relations with the Ottoman Empire by proposing an executive trade arrangement, was specified as the assistant state in the naval modernization.²⁷

As a result of mutual negotiations, the Turkish-American Friendship, Commerce and Navigation Agreement was signed on 7 May 1830. Besides determining the commercial regulations between the two states, this agreement also included a confidential article. According to this, the USA, who constructed low-cost ships thanks to the abundance of timber, would build steamships for the Ottoman Empire and also technical assistance would be provided by American experts to the personnel of the Imperial Naval Arsenal.²⁸ This agreement was confirmed by the US Senate, but the confidential article was refused on grounds that it was found contrary to the Monroe

²⁵ Bal, 2010: 15.

²⁶ Ari, 2009: 132.

²⁷ Erhan, 1998: 459.

²⁸ Gencer, 1986: 38-39; Erhan, 1998: 458-459.

Doctrine of 1823. This decision received a very negative response from Sultan Mahmud II and was protested by the Sublime Porte. Thereupon, the USA sent a script to the Sublime Porte on 27 September 1831 through the agency of its *charge d'affaires*, David Porter, in order to have the trade agreement approved by the Sultan. Accordingly, the USA agreed to support the Ottoman navy in terms of technology as long as it did not affect the other treaties that the USA had signed with some European countries.²⁹

As a consequence of the mutual consent, the experts, who were sent by the US government to Istanbul, launched steamship construction activities in the Imperial Naval Arsenal. It was observed that three American experts had a great influence on the Ottoman navy in the 1830s. One of them was Henry Eckford, who came to Istanbul in 1831. A corvette type-vessel of 1000 tons called the *United States* designed by him was purchased by the Ottoman Empire instantly, renamed *Mesir-i Ferah*, and joined the ranks of the Ottoman naval fleet. Before dying from a sudden illness, Eckford added two further ships during the remainder of his life: a 74-gun war ship and a frigate.³⁰

Other American experts included Charles Ross and Forster Rhodes. Coming to Istanbul in 1831, Rhodes was admired and appreciated by Kapudan Pasha, who assigned him as the head of the naval restructuring programme. Ensuring that quite a number of brand new vessels were built under his leadership, he started to build a ship-of-the line called *Nusretiye* in 1832 and it was launched in 1835.³¹ Rhodes also began to produce steam engines in Aynalıkavak dockyard, which was conducted under his supervision.³²

²⁹ Gencer, 1986: 38; Bal, 2010: 16; Arı, 2009: 134.

³⁰ Langensiepen and Güleriyüz, 1995: 1; Gencer, 1986: 39-40.

³¹ Bulgurcuoğlu, 2009: 39.

³² Langensiepen and Güleriyüz, 1995: 1.

Receiving support from the USA, which was a considerable geographical distance from the Ottoman territories in comparison to Britain, can be explained by the tension in diplomatic relations between the Empire and Europe after the Battle of Navarino and Greek Independence. However this situation was modified with the Egyptian Question, which was a further consequence of the Battle of Navarino, arose on account of Mehmed Ali Pasha who had been conferred only the governorship of Crete after the Treaty of Edirne in 1831. Indeed he was well aware of the weakness of the Empire and desired to seize the opportunity to extend his territorial domination. Being acquainted with the progress of Egyptian troops towards inner Anatolia, Sultan Mahmud II, who was not given any assistance from Britain or France, was forced to accept Tsar Nicolas I's offer of help. Upon the Russian Navy's approach towards the Istanbul Straits on 23 April 1833, France and Britain, who had preferred to remain neutral on the problem, brokered reconciliation between the Ottoman Empire and Egypt in order to remove Russia from the Straits. However, the Treaty of *Hünkâr İskelesi* was signed with Russia in 1833 in consideration of its aid. By the terms of this treaty, the Ottoman Empire was required in case of an outbreak of war to close the Straits to all other foreign powers except Russia.³³ This treaty, which was contrary to the political interests of Britain and France, came up once again when the governor of Egypt rebelled for the second time. The London Straits Convention, which was signed between the Ottoman Empire and European countries on 13 July 1841, determined that the Straits would be free only for merchant ships.³⁴ Depending on this, British Foreign Minister Lord Palmerston followed a policy in favour of Sultan Mahmud II after 1831 and emphasised the immediate need of the Ottoman Empire to implement reforms to

³³ Baker, 1928: 84.

³⁴ Badem, 2010: 61.

strengthen its army and navy. To manage this, first of all the Revolt of Mehmet Ali Pasha should be suppressed and Russian pressure over Istanbul should be prevented according to his recommendations. Doing this, precautions could be taken in order to maintain the financial situation. Afterwards British officers would be allowed to be commissioned in the Ottoman navy and the army so as to support the military reform programme.³⁵ In the meantime, the Treaty of Hünkâr İskelesi caused the relations with Britain to be strained once again. In fact, the alliance of Ottomans and Russians in 1833 was a natural result of the Battle of Navarino and the French occupation of Algeria in 1830. Sultan Mahmud II lost his trust in Britain but he knew the necessity for a naval reform programme as Russia, which he was forced to endure due to the rebellion of Mehmet Ali Pasha, had to be removed from the Straits. In the report of the British Ambassador Lord Ponsonby, the condition of the Ottoman navy consisting of 27 ships was regarded as unfavourable due to the insufficient number of qualified officers for the efficient operation of warships.³⁶ From this date forward, British diplomacy would try to achieve the complete removal of Russia from the Ottoman Empire and to establish a definite peace over Ottoman lands, securing the protection of the Black Sea, Istanbul, and the Straits, which was fully dependent on the existence of a powerful navy. Thus Britain preferred the sovereignty over the Ottomans, which could have the power to protect their lands against any kind of attack over the Straits instead of Russia. This concept would be determined as the foreign policy of Britain on the Eastern Question

³⁵ Dönmez, 2014: 93-94. Depending upon this purpose, a gradual increase can be followed in the size of the budgets of the Ottoman Navy during the reign of Sultan Abdülmecid. Accordingly, while the allocation of the navy in 1841 was 209,404 pounds sterling, it reached 647,765 pounds sterling in 1861 and the average amount for expenditures per year appears as 400,328 pounds sterling. However, the fiscal records, which show the total income and expense rates between the same years, also indicate that the average allocation reserved for the land army, amounting to 2,637,479 pounds sterling, was considerably higher than the budget for the navy, which means that while the total percentage of the allocation of the state's treasury spent on the expenses of naval affairs was 5.1%, 33.64% was reserved for the expenditures of army forces (Güran, 2003: 19-53).

³⁶ Dönmez, 2014: 114-116, 121.

from 1833 to the Ottoman-Russian War of 1877-1878, and the reforms to strengthen the Ottoman naval and military powers would be implemented under the supervision of Britain.

Upon the recovery of the relations between the Ottoman Empire and Britain, British-made engines and steam boilers started to be purchased and used in the Ottoman navy. This trade in naval equipment initiated the century-lasting commercial relationship between the two countries. The first steam vessel the Ottoman Empire owned was built on 24 November 1837 and called *Eser-i Hayri*, followed by *Mesir-i Bahri* and *Tahir-i Bahri* respectively in 1838 and 1839.³⁷

While the construction of sailing vessels was being continued in parallel with the period of Selim III, the first steamships were built with the assistance of American experts in the Imperial Naval Arsenal by taking the steamships, which were imported from the USA, Britain and France, as models. Among the ship-of-the lines, the *Mahmudiye*, which had a capacity of 1280 personnel and 128 guns, was constructed by the chief architect of the Imperial Naval Arsenal Mehmed Efendi and architect Mehmed Kalfa who had been students of the French expert Le Brun. This ship was also considered to be the largest ship built for the Ottoman Navy.³⁸

Apart from the shipbuilding activities, new reforms were continued to be implemented to reorganize the new training system established in the *Nizam-ı Cedid* period, in accordance with the requirements of new steam technology. However, stability in naval training could not be achieved as it was interrupted many times to find a better area for school building during the same period. Due to the great fire of 1821 that started in Kasımpaşa, the Naval Engineering School became unusable and the

³⁷ Langensiepen and Güleriyüz, 1995: 1; Sondhaus, 2001: 31.

³⁸ Bulgurcuoğlu, 2009: 44-45.

students had to suspend their studies for a year. In the education term of 1822-1823, the school building was moved to the *Erre-hane* (sawmill store) in the Imperial Naval Arsenal.³⁹ However, the technical deficiencies of this new building caused deterioration in discipline among pupils and changes were introduced by Kapudan Pasha Koca Hüsrev Pasha to improve the situation. His proposal was implemented in 1825. Having similar characteristics to the previous, this proposal stated that the salaries of the teachers and the students should be increased, as they were forced to look for different job opportunities at the same time because of the low wages.⁴⁰

Recognizing the need for a larger-capacity school building, it was decided that the residence of Cezayirli Hasan Pasha should be demolished by the approval of Sultan Mahmud II and a new building with a capacity of 400 students was planned. Until the completion of its construction, the students were transferred to another building named *Kalyoncu Kışlası* in Heybelida in 1837. One year after, the school moved again to its new building and its Code of Practice, named the *Şerait Kanunu*, was constituted. According to this, prospective students would be chosen among the candidates, who were 10 or 12 years old, healthy, and capable of reading and writing. Acceptance of students by request would be strictly forbidden during the student admission process. In addition to this, the lectures were specified as geometry, logarithms, surveying, *müsellat-ı müsteviye* (plane trigonometry), calculation, algebra, *müsellat-ı küreviye* (spherical trigonometry), *heyet* (astronomy), *ebad-ı kevakib* (dimension of stars), *arz ve tul mechutunu istihraç* (calculation of latitudes and longitudes), technical drawing, Turkish literary composition, Arabic, and Persian.⁴¹

³⁹ Sayacı: 18, Uzunçarşılı, 1988: 510.

⁴⁰ Sayacı: 18-20.

⁴¹ Sayacı: 23-24; Çoker, 2006; 13-14; Gökçay, 2005: 21; Uzunçarşılı, 1988: 510.

Sultan Mahmud II died while the Egyptian Question was proceeding. His son, Sultan Abdülmecid, succeeded to the throne in 1839 and following his accession, he declared the Imperial Edict of Gülhane, known as *Tanzimat Fermanı*, which aimed to create a better environment for the intended modernization by taking control over the state's disrupted institutions.⁴² This also resulted in the opening of a new era in Ottoman history called the *Tanzimat*.

At the same time, the Ottoman navy was close by Egypt under the supervision of Kapudan Pasha Ahmed Fevzi Pasha to quell the continuing rebellion of Kavalalı Mehmed Ali Pasha. Sultan Abdülmecid appointed Hüsrev Paşa as the Grand Vizier and receiving this information about Hüsrev Paşa's promotion, Ahmed Fevzi Pasha became concerned about his rival's intentions and absconded to Egypt with the navy. The 25-ship Ottoman fleet, which was handed over to Kavalalı Mehmed Ali Pasha in the port of Alexandria, consisted of the following ships contained in the table below:⁴³

Table 1. The Ships Comprising of the Ottoman Fleet in Egypt in 1839

Ship-of-the Lines	Frigates	Corvettes	Brigs	Steamer
Mahmudiye	Nizamiye	Mesir-i Ferah	Cay-ı Ferah	Peyk-i Şevket
Mesudiye	Şadiye		Fecr-i Sefid	
Fethiye	Suriye		Kuts-i Zafer	
Memduhiye	Hıfzu'r-rahman			
Fevziye	Mir'at-ı Zafer			
Teşrikiye	Tair-i Bahri			
Tevfikiye	Navek-i Bahri			
Nusretiye	Şihab-ı Bahri			
Burc-ı Zafer	Nesim-i Zafer			
	Fazlullah			
	Kaid-i Zafer			

Under the positive influence of the acceptance of the principle of equality among national subjects with the declaration of the Imperial Edict of Gülhane, Lord Palmerston

⁴² For further information regarding the Imperial Edict of Gülhane see Shaw and Shaw, 1977: 55-95; Karal, 2007: 170-185; Kaynar, 1991:164-190.

⁴³ Bulgurcuoğlu, 2009: 58-60.

repeated his offer to support the Ottoman Empire regarding naval modernization. In the meantime, Captain Baldwin Wake Walker, known as *Yaver Pasha*, entered the service of the Ottoman navy as an advisor in 1838⁴⁴ and was asked to prepare a report about the condition of the fleet. According to his observations, the navy was in desperate need of radical reforms. Not only officers, but also the students were considerably insufficient in terms of maritime sciences and applications. In his other report, he highlighted the inadequate number of ships in Istanbul due to the Ottoman fleet, which Ahmet Fevzi Pasha had absconded to Alexandria. In addition to this, he indicated that although there were 1100 students connected with the navy, most of them were ignorant to the idea of seamanship.⁴⁵ On 6 August 1840, Sultan Abdülmecid confirmed Captain Walker's commandership over the Ottoman fleet, which would be combined with the British squadron for the operation arranged against Mehmet Ali Pasha in Syria. Therefore the offer, which had been rejected by Sultan Mahmud II on the grounds that a Christian could not be in command of Muslim marines, was officially approved and the effectiveness of British officers in the Ottoman navy continued from this date forward.

Upon the resolution of the Egyptian Question with the Treaty of London in favour of the Ottoman Empire in 1840, the Ottoman Navy was brought from Egypt on 4 January 1841 thanks to the aid of Britain. Returning to Istanbul on 21 March 1841, the fleet was wrecked due to the rebellion. As a result of the investigations, some ships

⁴⁴ Captain Walker entered the Royal Navy in July 1812 and was promoted to a lieutenant on 6 April 1820. Until 1827, he served in the Jamaica, South America, and West Africa Stations and was sent to the Mediterranean station in 1828. Being commissioned nearly ten years in the same area, Walker entered the service of the Sultan Abdülmecid in 1838 with Admiralty permission. He was mainly responsible for the implementation of new reforms designed for the naval fleet and he stayed in the same position until 1844 (for further information, see Hamilton, 2004).

⁴⁵ Dönmez, 2014: 285.

were repaired, and some of them had to be virtually rebuilt. During this process, many of these ships were reassembled using steam engines.⁴⁶

Most of the ships inherited from the reign of Sultan Selim III and constructed between 1821 and 1827 were destroyed in the Battle of Navarino and some of them were greatly damaged during the rebellion of Mehmet Ali Pasha. Another decrease in the number of ships was experienced in 1853 when the Russians destroyed the Ottoman fleet with a sudden attack against Sinop. Towards the end of the reign of Sultan Abdülmecid, while the number of sailed ships was 29, the number of steamships reached 20 in 1855.

Conclusion

As clearly presented, Ottoman military modernization, which continued at an increasing pace from the last quarter of the eighteenth century to the end of the nineteenth century, followed a progressive course, influenced by the political alliances or conflicts between the Empire and the European states. The Russian efforts to dominate the Straits and the Eastern Mediterranean in the process started with the Treaty of Küçük Kaynarca dragged the Ottoman Empire into numerous wars and land losses, and Britain played the key role in determining the future existence of Ottoman integrity during this period. A consistency in the foreign policy of Britain could not be achieved with the Ottoman Empire, as it was included in the combined French-Russian navy in the destruction of the Ottoman fleet at the Battle of Navarino: although it had become an ally of the Ottomans during the French occupation of Egypt in 1798. Particularly after the Battle of Navarino, the modernization of maritime field was concentrated more on its technical

⁴⁶ Arı, 2009: 135-136.

side and the steam technology were adapted into the Ottoman shipbuilding tradition, which led to an increase in construction activities with the arrival of technical assistance requested from the United States. This also confirmed the strength of the Ottoman naval infrastructure as the Imperial Naval Arsenal recovered in a short-time and the Ottomans began to apply new technologies right after their rivals.

However, the ambivalent approach of Britain in relation to the Egyptian rebellion caused the Empire to be faced with the danger of collapse and led Sultan Mahmud II to sign the Treaty of Hünkâr İskelesi with Russia in 1833. The concern of British diplomacy in regard to the possible Russian protectorate over the Ottoman Empire resulted in Britain changing its attitude, and to follow a policy to protect Ottoman territorial integrity to guarantee its sovereignty over the Straits. This principle was officially confirmed with the Treaty of Paris in 1856. For this reason, the elimination of the Russian threat until 1877 is attributable to this alteration of the British policy towards the Ottoman Empire after the Treaty of Hünkâr İskelesi.

As the continuation of the existence of the Empire became dependent on the diplomatic and military support of Britain, the protection of the Straits, Black Sea, and the Eastern Mediterranean was determined as the main purpose of the Ottoman military forces. For this reason, having a strong navy emerged as the top priority of the Empire and it was encouraged by Britain to start a naval oriented modernization programme towards the 1850s. In the reports prepared by the naval advisors commissioned in the Ottoman navy, training was realised as the biggest shortfall of the naval forces, and the route of the future naval modernization was determined to consist of deploying the navy only for providing the internal security and protecting the seashores from an external threat. In addition, it was decided that the utmost consideration should be given to

training, and the naval reforms should be implemented to increase the number of qualified personnel to be commissioned in the warships. In parallel with this, after the acceptance of Lord Palmerston's offer to commission British officers in the Ottoman navy in 1840, the Ottoman Empire became dependent on Britain in terms of technical equipment, naval officers, and workers until the end of the reign of Sultan Abdülaziz.

CHAPTER 2. THE EARLY INSTITUTIONAL DEVELOPMENTS OF OTTOMAN NAVAL INTELLIGENCE (1839-1867)

Introduction

The pressing need for a powerful navy derives from the necessity of maintaining the shores of a country against any attack from the outside. This is also paramount in controlling maritime trade and shipping traffic within the territorial waters, and provides a suitable basis for the military and commercial fleets regarding operations abroad by giving safety to the national coasts.⁴⁷ Given the importance attached to quality and technological knowledge rather than the number of ships, equipment, guns, ammunition and personnel, it became apparent that an efficient administrative system is the principal requirement for the naval forces.

Having a good awareness in regard to the basic tasks of the naval administration—such as determining a logical decision-making mechanism in war-time and keeping the fleet all the time in a battle-ready form including peace-time—the Ottomans commenced the modernization of the traditional sea policy of the existing administrative system in the period of Sultan Selim III. In this long process that continued until the beginning of the twentieth century, the rapid changes taking place in the world's naval technology situated the Ottoman Admiralty in a more privileged position than other institutions, and the responsibilities held by the Admiralty presented a more complex structure in the nineteenth century.

The main duties of the naval administration in the Ottoman Empire were to ensure the maintenance and the expansion of the naval fleet in accordance with the Empire's national interests, and to train officers and marines who had the competence to

⁴⁷ Sampson, 1910: 195; *Admiralty Administration, Its Faults and Its Defaults*, 1861: 2-3.

operate battleships in an efficient manner. Besides providing an appropriate distribution for the navy to the specified locations, Ottoman admirals were also responsible for keeping the fleet in an ideal format in terms of personnel and equipment in both war and peace time.

In the period starting with the declaration of *Tanzimat*, new implementations were put on the agenda on this existing system and each unit began to contain specific characteristics in parallel with these developments. The authority for naval decision-making was still in the hands of Kapudan Pasha in the year that Sultan Abdülaziz ascended the throne. However new auxiliary units were established in addition to the Naval Board, which was in charge of the financial management and the preparation of proposals to determine naval reforms since 1845. Under the directions of their head officers, members of each unit constituting the naval affairs were responsible for providing the functionality of the Ottoman navy in the frame of their assigned position. The natural mechanism of this correlation, which was improved continuously from the Tanzimat reform era onwards, was operated with the practices of consultation, submitting proposals, making changes in existing regulations, decision making, and implementation respectively. In addition to this, the rules and regulations to be followed by all these units and naval personnel were identified by the naval code of 1849 and this system continued to be applied until 1867.

In 1867, the office of Kapudan Pasha, which had been the head of the Ottoman navy for more than 300 years, was abolished and the naval administration entered a comprehensive modernization process with the foundation of the Ministry of Marine. For this reason, we will try to examine the naval administrative system of the Sultan

Abdülaziz's reign in two periods—1861-1867 and 1867-1876—in order to analyse the administrative amendments and reforms in the frame of the conditions of their period.

Consequently, the first part of our work will focus on the application of Tanzimat reforms to the Ottoman Admiralty by analysing the main characteristics of the administrative system that started to be implemented with the permanent foundation of the Naval Board in 1845. In the second part of the chapter, we will examine alterations made on the existing decision-making mechanism in the first phase of naval administration implemented between 1861 and 1867 by scrutinizing these questions: (1) To what extent was the system transferred from the previous periods evaluated in the reign of Sultan Abdülaziz? (2) What kinds of changes were implemented in naval administration? (3) Which administrative units did the Ottoman Navy have between 1861 and 1867, and what were their main tasks and functionality?

Naval Administration and Decision-Making during the Tanzimat Reform Era

The development of the structure and the command of the Ottoman Navy was a gradual process based on the need to maintain the territories conquered by the land army and later to provide security for the shipping routes of trade and communication.⁴⁸

Following the annexation of the Saruhan, Aydın and Menteşe Emirates, the requirement of a sea force for the safety of the trade carried out along the coasts of the Western Anatolia resulted in the appointment of Saruca Ağa, as the *derya bey* (bey of the sea) of Gallipoli by Sultan Bayezid I in order to establish the dockyards and the navy. Next holders of the same position were entitled as *sancak beys*, who were responsible for manning the fleet and directing the construction and maintenance activities by receiving

⁴⁸ Bostan, 2007: 512-513; Shaw and Shaw, 1976: 131.

the revenues of the *sancak* of Gallipoli and the *kazas* of Galata and Izmit, until February 1534, when Captain Barbaros Hayreddin was assigned as both the *beylerbey* (governor general) of the *Cezayir-i Bahr-i Sefid* province and the commander of navy with the title of *Kapudan Pasha*, the Admiral General of the Ottoman naval forces. Given the right to sit in the Imperial Council with the rank of *vizir*, the Office of Kapudan Pasha was rendered the apex of the naval organization and the *sancaks* constituted the *Cezayir-i Bahr-i Sefid* province were attached to the navy holdings while the affairs of the navy were directed in two distinct areas as the fleet operations and the construction and maintenance activities carried in the dockyards. Depending on this structuring, the main responsibility of the Kapudan Pasha was determined to keep the order of naval affairs both ashore and offshore, and under his jurisdiction, the operation of dockyards were attached to a hierarchy of officials including commanders, scribes and record-keepers while each ship belonging to the Navy was operated by a *reis* (captain) or *hassa reis*, who held *timars* in the *sancaks* of the Kapudan Pasha for manning their large vessels.⁴⁹

The necessity to modernize this briefly outlined traditional Kapudan Pasha system of administration were first came under question after the arrival of the Naval Code prepared by the Mezomorto Hüseyin Pasha in 1701, revealing the significance of promoting officers, who had sufficient knowledge of seamanship, for significant posts while commencing the transition period from galleys to galleons, which enabled the Ottoman Navy to control the Eastern Mediterranean until the entire destruction of the Ottoman fleet by the Russian Navy in the Battle of Çeşme in 1770.⁵⁰ To reconstruct the navy in compliance with the European shipbuilding technologies, the application of *Nizam-ı Cedid* reforms to the Ottoman Navy was directed by Küçük Hüseyin Pasha,

⁴⁹ Bostan, 2001: 355; Bostan, 2002: 241; Shaw and Shaw, 1976: 131-132.

⁵⁰ Uzunçarşılı, 1988: 488-500; Bostan, 2001: 354-355.

who was appointed as Kapudan Pasha in 1792. Depending upon the increasing number of vessels, a careful financial management became unavoidable towards the beginning of the nineteenth century and a separate naval treasury was established to provide and manage the needed budget for the prospective reforms with the arrival of the Naval Code of 1804.⁵¹

According to the principles of the administrative reforms outlined and imposed after 1804 in the new naval code, the Directorate of the Imperial Naval Arsenal⁵² was abolished and replaced with the *Umur-ı Bahriye Nezareti* (Ministry of Marine) to regulate the expenditures on the naval modernization with the establishment of a separate treasury of the Navy. In this way, the main tasks of the Admiralty and Ministry were separated. Accordingly, the Captain Pasha was responsible for military issues such as outfitting the ships with required guns, discipline of military personnel and organization of armament expenses, whereas the Minister of Marine was commissioned to regulate the purchasing of any kind of naval equipment and determining the monthly salaries of the naval personnel. The Ministry of Marine was a very important new unit as it represented the instatement of another administrative authority in addition to the Captain Pasha in terms of decision-making for the first time. Thus the Captain Pashas, who held all the military, administrative and financial responsibilities for the Ottoman navy until 1804, would examine the financial matters according to the instructions given by the Ministry of Marine and make decisions within the frame of its proposals.

⁵¹ Uzunçarşılı, 1988: 426-427; Gencer, 2001: 65-66.

⁵² Being one of the most prominent officers in the Ottoman navy, directorate of the Imperial Naval Arsenal (*Tersane Emini*) was in charge of the management of revenues and expenditures (Bostan, 1992a: 33). In traveller Olivier's accounts recorded between 1792 and 1798 in Istanbul, he was referred as the Captain Pasha's assistant and responsible for regulating the income allocated for the Imperial Naval Arsenal and providing all kinds of equipment needed for construction, shipbuilding and other related activities after receiving Captain Pasha's approval (Olivier, 1801: 41).

However, the new system of administration was abolished following the dethronement of Sultan Selim III and the traditional administrative methods were resumed.

After the declaration of the Imperial Edict of Gülhane on 3 November 1839, the necessity to adapt available naval administration mechanisms into the new system emerged, and the foundation of a commission consisting of pashas and officers was proposed so as to assist Kapudan Pasha in planning the modernization activities concerning naval affairs. This board, referred to as the “Naval Board”, was constituted for the first time in Ottoman naval history. Being established on 23 January 1840, the Naval Board was originated by taking the Ottoman land army organization as a model, as was indicated in a document regarding the foundation date of the Naval Board with the following statement: “... *a commission will be instituted in the Imperial Naval Arsenal as there were in the Ministry of War and the Imperial Armoury of Artillery.*” The foundation purpose of the Naval Board, which was also entitled as *Şura-yı Ali-i Bahriye*, *Meclis-i Rüesa*, *Şura-yı Bahriye* or *Meclis-i Bahriye* in Ottoman archival documents, stated in the same document, as providing the implementation of required activities to put the empire’s naval forces in order.⁵³

When the hierarchical structuring of the board is examined, we find it to be consisting of eight members, which included a chairman, a mufti, who served as a legal advisor, a scribe, a registrar, and four permanent members.⁵⁴ The responsibility to change their position was given directly to the Kapudan Pasha. We learn the details of its tasks and functioning mechanism from another document dated 20 March 1840. Accordingly, the Naval Board was an auxiliary unit directly affiliated to the Kapudan Pasha, and responsible for all kinds of purchasing and manufacturing activities

⁵³ Safvet, 1329: 39-40.

⁵⁴ Safvet, 1329: 40.

belonging to the Imperial Naval Arsenal. Its authority also covered the decisions made concerning the artisan class working in the arsenal and the staff and students of the Naval Academy.⁵⁵

Established in order to provide the sea forces a better financial management, the Board was abolished in 1841 without having achieved the intended reforms due to the report of Kapudan Pasha Tahir Pasha, stating briefly that it was an unnecessary unit and the management of financial affairs for both the arsenal and the navy were given into the hands of the Undersecretariat of the Navy.⁵⁶ From this date forward, projects planned to modernize the Ottoman navy would be conducted by another commission called *Meclis-i Adiiyye*, which would be convened when necessary under the chairmanship of the undersecretariat.

This structuring continued until 1845, when the organization of the Naval Board was reconsidered once again. Accordingly it was regarded as an unfavourable implementation to give all the powers of naval matters to one person and an official proposal was represented to the Grand Vizier with the following statements:

Works carried out by component ideas and different views cannot be compared with the decisions made by a single vote. For this reason, the ideas discussed and generated for naval affairs, will be brought in compliance with the method of great powers in naval administration including more than one kapudan pasha called Admiral. Four or five officers will be commissioned with the title of kapudan pasha and they will gather in the *Divanhane*⁵⁷ to discuss all kinds of matters relating to the navy every day. To finalise the examined issues and to acquaint other departments, an office called *Umur-ı Bahriye Nezareti* will be established. The Office of Kapudan Pasha will be abolished and instead of this, an officer called *Bahriye Mûşiri* will be appointed in parallel with the practice carried out in the Ministry of War and the Imperial Armoury of Artillery. Apart

⁵⁵ BOA, İ.DH, 442. For the full translation of this document see Gencer, 2001: 138-139.

⁵⁶ Gencer, 2002: 235.

⁵⁷ *Divanhane* represents the administrative building of the Ottoman navy and the office of Kapudan Pasha. It was first established in the period of Sultan Mehmet II and an additional building was built during the reign of Sultan Selim I (Bostan, 1992a: 11).

from this, a special commission will be constituted for the Imperial Naval Arsenal.⁵⁸

The prominent point of this document is the suggestion of the abolishment of the office of Kapudan Pasha and the re-establishment of the Ministry of Marine, which had been decommissioned following the dethronement of Sultan Selim III. This would result in, the Ministry becoming the only decision-making body for naval affairs. After this proposal was delivered to the Sultan through the office of Grand Vizier, an imperial decree was issued, explaining that the assignment of a permanent Naval Board under the supervision of the Kapudan Pasha would be appropriate to prevent the naval reforms to be prepared by only one point of view.⁵⁹ This indicates the rejection of the proposal regarding the abolishment of Kapudan Pasha as the Naval Board was positioned as a consultative commission.

With the approval of the Sultan, the permanent Naval Board was founded on 8 September 1845. According to the proposal prepared by the Kapudan Pasha Mehmet Ali Pasha, to be submitted to the Grand Vizier, its members were listed as a chairman, a mufti, two scribes and four members. Considering their numbers and qualifications, it can be said that the Naval Board had the same characteristics as the one established in 1840. Furthermore the Undersecretariat of the Navy was replaced with the Ministry of the Imperial Naval Arsenal.⁶⁰

Given the responsibility of preparing the prospective reforms, the Naval Board was also the financial administrator of the navy and the arsenals. The needed equipment for construction and manufacturing was determined by this council and it had also the authority of amendments on the articles of naval code regarding the naval personnel.

⁵⁸ From BOA, Mesail-i Mühimme, 345-1transcribed by Gencer, 2001: 143-145.

⁵⁹ Gencer, 2002: 235.

⁶⁰ Gencer, 2001: 151-153.

The unit providing the budget needed for all these tasks was the Ministry of the Imperial Naval Arsenal.⁶¹

To implement the decision taken by the Naval Board, it had to be approved by many units. Both new laws and regulations prepared by the Naval Board and protocols, containing comments and suggestions for the modernization of the fleet, were first presented for Kapudan Pasha's approval and they were sent to the *Meclis-i Vâlâ-yı Ahkâm-ı Adliye*⁶² after being examined by the office of Grand Vizier. If there were questions or issues to be clarified and corrected by the Meclis-i Vâlâ, they were transmitted back to the Kapudan Pasha through the Grand Vizier to be submitted to the Naval Board. Following the corrections made on necessary parts, proposals were submitted again to the Meclis-i Vâlâ through the re-approval of other units, and they were confirmed here again for forwarding to the Grand Vizier. The final decision was taken by *Meclis-i Mahsus*, which was a council united under the chairmanship of the Grand Vizier. After their confirmation, the documents were transmitted to the Sultan and the acknowledgement of the proposals with the issuing of an imperial decree was expected.

As a natural consequence of the westernization carried out for the state's whole institutional system after the arrival of Tanzimat, a significant increase was observed in the reforms towards the middle of the nineteenth century. Although the responsibility to manage this comprehensive modernization was given to the Meclis-i Vâlâ, another

⁶¹ Gencer, 2001: 160.

⁶² It was established on 24 March 1838 with the efforts of Mustafa Reşit Pasha in order to ensure the preparation and the implementation of new laws and regulations, setting up a substructure for the *Tanzimat* (Seyitdanlıoğlu, 1999: 36). It was combined with the *Meclis-i Tanzimat* and divided into three units as the Departments of Law and Order, Administration of Civil Service and Proceedings in 1861. On 28 March 1868, the assembly was separated again as *Divân-ı Ahkâm-ı Adliye* and *Şurâ-yı Devlet* to liberalize executive and legislative powers and to prevent interference in judicial power. Accordingly *Şurâ-yı Devlet* was held the responsibility of the preparation of new law and regulations and *Divân-ı Ahkâm-ı Adliye* was assigned to take the juridical tasks as a high court (Seyitdanlıoğlu, 1999: 53-58).

assembly needed to be established as delays had been experienced in the practices of Meclis-i Vâlâ, and it was found insufficient for this wide-ranging task. Conflicts among the high bureaucracy of Tanzimat era also played a major role in this decision.⁶³ Indeed the presidency of the assembly changed 22 times between 1839 and 1855 and this situation did not allow ensuring stability in the intended innovation. For this reason, a new assembly called *Meclis-i Tanzimat* was founded on 25 September 1854 so as to prepare new regulations for the complete application of Tanzimat, to revise the existing units and to prevent bribery.⁶⁴

However the acceleration of units in the administration of Tanzimat reforms inhibited the Meclis-i Vâlâ from functioning efficiently due to increased liabilities, particularly after the declaration of the Imperial Reform Edict known as *Islahat Fermanı* in 1856. Therefore these two assemblies, which were assigned almost the same tasks, were combined under the name of Meclis-i Vâlâ-yı Ahkâm-ı Adliye following the accession of Sultan Abdülaziz to the throne in 1861, and Meclis-i Vâlâ was divided into three units. One of them was the Legislation and Order Department called *Kavanin ve Nizamat Dairesi*, which was in charge of preparing the proposals for the new laws and regulations.⁶⁵ Accordingly, while any proposal prepared by the Naval Board was presented to the Assembly of Tanzimat between 1854 and 1861, the component authority in that position after 1861 was specified as the Legislation and Order Department.

This networking allowed any kind of application with regard to the reformation to be considered by different units of the state's whole administrative system, so as to develop a more encompassing decision-making mechanism. However, immediate

⁶³ Cevdet Paşa, 1991: 36-38.

⁶⁴ Seyitdanlioğlu, 1999: 47-49.

⁶⁵ Cevdet Paşa, 1991: 153; Seyitdanlioğlu, 1999: 52-54.

application of decisions was slowed down because of this long approval process and it also allowed bureaucratic units, which had no concern with the maritime field, to have a voice in the modernization of naval affairs. By taking account of the suggestions of many units, the state intended to create a control mechanism to monitor efficient administration by means of having an economical attitude towards the expenditures of the Imperial Naval Arsenal. By this way, it aimed to avoid unnecessary expenses. Conversely, this practice resulted in clumsiness in relation to naval decision-making, which in reality needed to be implemented without unnecessary delay.

A certain consistency in the total number of members of the Naval Board could not be achieved in the period of Sultan Abdülmecid, as it was eight until 1851 but was increased to nine after the inclusion of the minister of naval factories with the rank of vice admiral called *ferik*.⁶⁶ This number was decreased to eight again in 1853 and a new office was added in 1856 to control the scribes of the Naval Board with the title of *meclis-i bahriye mümeyyizliği*, meaning naval examiner. Following the decision to drop the number of scribes to one, an office called purchasing transactor was established in 1857 in order to monitor all kinds of correspondence relating to purchasing.⁶⁷

Towards the 1850s, the liabilities of the Naval Board were considerably expanded in parallel with the acceleration in the number of ships, and also military and bureaucratic personnel. As well as being responsible for the development of the arsenals in terms of equipment and skilled workers, the Naval Board was also involved in the management of the commercial fleet and the private ferry companies, which were the

⁶⁶ *Ferik* was one of the military ranks of the Ottoman army between the rank of *müşir* and *mirliva*, and was enacted after the abolishment of the Janissary corps and establishment of the new army, *Asakir-i Mansure-i Muhammediye* (Pakalın, 1983: 606-607). In the period of Sultan Abdülmecid, the titles used for the naval officers were changed in accordance with the application carried out in the Ottoman army. Depending on this alteration, the title of *patrona* which refers the vice admiral of the Ottoman navy after kapudan pasha and *kapudane* were turned into the title of *ferik* (Mahmud Şevket Paşa, 1325: 35).

⁶⁷ Gencer, 2001: 207-208.

main determiners of the Bosphorus traffic.⁶⁸ In order to lighten its workload, an assisting council was established on 23 October 1849. The main task of this temporary structure was to specify the needed reforms for the arsenals and the navy and nominate the members who would be chosen by the Naval Board. This council was to be convened to discuss the relevant issues in the office of Harbour Master three days every week.⁶⁹ The other councils assisting the Naval Board were the councils of construction and harbour. Particularly after the implication of steam power in to the Imperial Naval Arsenal, a remarkable increase was observed in shipbuilding activities from the beginning of 1830s. In addition to the construction works, the Naval Board was in charge of controlling the Bosphorus ferry traffic after the foundation of *Şirket-i Hayriye*⁷⁰ in 1851 by following the instructions given by the Imperial Naval Arsenal. Considering the developments in civil maritime in 1858, the increasing workload was divided between the relevant departments, and with the establishment of the

⁶⁸ Transport companies from different countries had the right to trade in the coastal cities, to load their ships with a range of goods and passengers, and also to move freely among the ports of the Ottoman Empire thanks to the capitulations, which were made permanent since the middle of the eighteenth century. Civil transport was being dominated by foreign-flagged ships and this situation led Sultan Abdülmecid to take some measures and establish a nationalization policy (Kütükoğlu, 1995: 166). For this purpose, a steamship called *Peyk-i Şevket* was purchased and assigned to transporting goods and passengers between the ports of Istanbul and Izmir. By order of Sultan Abdülmecid, without shipping a sufficient number of shiploads with the *Peyk-i Şevket*, taking cargo and passengers on foreign ships was prohibited. In order to maintain the service of this steamship without interruption, a national transport company named *Şirket-i Osmaniye* was founded and increased its effectiveness by purchasing steamships (Ari, 2009: 138). The name of this institution was amended as *Mecidiye Şirketi* at first and then it was decided to be named as *Fevaid-i Osmaniye Şirketi* in 1843. This company owned 19 steamers which were responsible for the transport of the islands of Marmara, the port of Thessaloniki, Crete, Bosphorus, the port of Trabzon and the ports of the Marmara Sea respectively (Gencer, 1986: 16-17; Kütükoğlu, 1995: 167-168, 173).

⁶⁹ Gencer, 2001: 199-200, 203.

⁷⁰ Although *Fevaid-i Osmaniye Şirketi* annexed Üsküdar port in addition to Istanbul-Izmir transportation line, it failed in competition with foreign companies and was forced to transfer its ships to the French Company. As these negative developments appeared, establishment of a new national company was to be required and *Şirket-i Hayriye* was founded in 1851. This company's transportation fleet consisted of two ferryboats, 14 paddle steamers and two steamboats and scheduled services were being organized at certain points in the Bosphorus. Thanks to this company, the local economy around portsides was reinvigorated and new factories were established to be used for the renovation of the steamers. Due to the success of the *Şirket-i Hayriye*, the French company was forced to stop the transport in the Bosphorus and to sell its steamers to the Ottoman Empire in 1852. *Şirket-i Hayriye* was the one of the most important economic enterprises of the Empire and the existence of the company continued until 1944 (Kütükoğlu, 1995: 175-176).

construction and harbour councils, each unit became more independent in developing more effective proposals in accordance with their needs and desires. While the council of harbour consisted of a chairman, a mufti and five members chosen among the merchants enrolled to Şirket-i Hayriye, the construction council included the technical staff of the Imperial Naval Arsenal such as chief architect, head architect for repairs and chief caulker, as well as the chairman and two permanent members with the rank of colonel. Furthermore, another council named *Meclis-i Umumi-i Ümera-yı Bahriye* was established in a temporary context for the resolution of urgent issues regarding the Ottoman navy. The members of all administrative units were obliged to participate in this council to finalize such matters.⁷¹

All the units established in the reign of Sultan Abdülmecid were in the position of advisors to Kapudan Pasha. However, the gradual involvement of bureaucracy into the Ottoman naval administration along with the distribution of tasks so as not to give the responsibility of the decision-making mechanism to a single authority indicated that the government was seeking to introduce a more institutionalized framework into the administration of the maritime field during the same period. The main reason for this application was the emerging necessity to administer each unit of the navy according to certain procedures and regulations after the proclamation of the Imperial Edict of Gülhane. The most important step taken for this purpose was the new naval code prepared by the Naval Board, for the purpose of administration of naval personnel in a clearly identified framework. After receiving the approval of Kapudan Pasha Mehmet Ali Pasha, it was submitted to the Meclis-i Vâlâ-yı Ahkâm-ı Adliye through the office

⁷¹ Gencer, 2001: 203-206.

of Grand Vizier. With the acknowledgement of Sultan Abdülmecid, it was put into practice on 2 June 1849.⁷²

As the administrative reforms were carried out between 1840 and 1845, an amendment for administrative units was not included until the naval code of 1849, which consisted of 167 articles regarding mainly the rules and liabilities of the naval personnel commissioned both in the warships and the Imperial Naval Arsenal. The most remarkable point about administration was the emphasis placed upon the obligation for Naval Board approval for various implementations made according to the naval code. By this means, the authority of the Naval Board was presented in a clear context.

The first articles of the naval code related to the marines and the rules that they had to obey in the ships and in their barracks. In addition to this, the ceremonial protocol was clearly identified when the Sultan desired to visit any ship belonging to the navy. Besides giving information about the patient care planning in the naval hospital, the position of senior officers and responsibilities of staff who were commissioned in the ammunition stores was explained in detail in the second part.⁷³ Articles related to the procedure for crime and punishment, the maintenance of the warships and the preservation of ammunition stored in their magazines, the rules and regulations for the personnel during cruising, the recruitment process of marines, and their training were also added to the naval code.⁷⁴ The final part was about the practice applied in the manufacturing and construction sites of the Imperial Naval Arsenal.⁷⁵

⁷² *Bahriye Nizamnamesi (1849)*, 1996: 1.

⁷³ *Bahriye Nizamnamesi (1849)*, 1996: 2-9.

⁷⁴ *Bahriye Nizamnamesi (1849)*, 1996: 10-15, 22, 30-34.

⁷⁵ *Bahriye Nizamnamesi (1849)*, 1996: 43-51.

Enthronement of Sultan Abdülaziz and the First Phase of the Naval Administration (1861-1867)

Following the death of Sultan Abdülmecid on 25 June 1861, his brother Sultan Abdülaziz succeeded to the throne on the same day. Although he was kept away from politics and encouraged to engage in sports, hunting, painting, and music in order not to cause Sultan Abdülmecid any suspicion regarding a premature enthusiasm for the throne during his princship, Abdülaziz closely followed the present issues of the state and started to plan possible solutions that would be carried out in his reign.⁷⁶

The young, healthy, and dynamic appearance of the new Sultan, who was 31 years-old in the first year of his reign, caused an increase in his popularity among the public in a short time. Indeed increasing insurrections under the influence of the Pan-slavist policy that was being followed by Russia with regard to the Christian subjects of the Ottoman Empire in the Balkans, in addition to the looming financial crisis, had had a negative impact on the state's central authority. For this reason, people considered any change in state leadership as a promising development that could relieve the country from the depression. Thus Sultan Abdülaziz emphasised with an imperial decree addressed to the Grand Vizier Kıbrıslı Mehmet Paşa on 2 July 1861 that he would be a leader who should work untiringly for the well-being and prosperity of his subjects by taking measures to regulate the state's treasury; paying great attention on the army and navy, and promising the upholding of the treaties previously concluded with the allied states.⁷⁷

⁷⁶ Mahmud Celaleddin Paşa, 1979: 43-44; Sayar, 1978: 200; Ongunsu, 1993: 57; Gülen, 2001: 98; Uyar and Erickson, 2009: 117.

⁷⁷ Karal, 2003: 2-3.

Sultan Abdülaziz intended to continue the reformist policy that was followed by his father Sultan Mahmud II and his brother Sultan Abdülmecid, despite the fact he knew that the financial depression was the biggest obstacle set against this purpose. The cost for the transfer of his palace residence to Dolmabahçe following his enthronement brought an additional burden to the treasury which was already on the brink of bankruptcy in consequence of the mounting expenses.⁷⁸ Therefore he focused more on the financial matters by taking precautions to overcome the crisis in the beginning of his reign and resorted to placing controls on the palace, laying off redundant officers, who held unnecessary offices, and fighting against bribery, all of which granted a respite to the financial situation towards 1863.⁷⁹

The recovery observed in the state's financial statement allowed Sultan Abdülaziz to carry out the military modernization that he had envisioned before his sultanate. The new Sultan of the Ottoman Empire—whose brother had guaranteed the empire's territorial integrity with the signing of the Treaty of Paris in 1856 by obtaining an alliance with Britain and France during the Crimean War—intended to recapture Crimea and to protect the Ottoman lands against Russian expansionist policy. Thus, the military reforms accelerated in pursuit of this purpose, left their mark on this period and an external attack that could threaten the political integrity of the Empire was not seen until the Ottoman-Russian War of 1877-1878. As a result of this policy, the Ottoman navy became one the most powerful navies of Europe with its ironclads and technical equipment towards 1875. In parallel to this, fundamental changes were made on the

⁷⁸ Cevdet Paşa, 1991: 143.

⁷⁹ This partial improvement in financial condition of the Empire can be seen from the total revenues of the Ottoman budgets between 1859 and 1863. Accordingly, while the Ottoman budget of 1859-1860 was 9,711,608 pounds sterling, it rose to 10,016,545 pounds sterling in 1861 and 10,091,092 pounds sterling in 1862. Depending on fiscal measures taken by the Sultan and increasing revenues obtained from customs, tobacco, stamp and salt duties, the budget amounted to 13,284,332 pounds sterling in 1863. From TNA: PRO FO 424/20; FO 424/24, 17; FO 78/1790 transferred by Kiyotaki, 2005: 24.

administration of the Ottoman navy and the management was brought into a more bureaucratic frame.

The most remarkable implementation in the first period of the naval administration was the division of administrative affairs into three units called Navy, Order and Provision on 11 August 1863. A document, which is preserved in the Şura-yı Bahriye Classification of the Istanbul Naval Museum Archive, is a twelve-point regulation, including detailed information about the tasks and liabilities of these newly established departments.⁸⁰

According to this, the main purpose of the new practice was *to provide the Naval Board a more coordinate administration due to the increased number of warships and the issues related to their maintenance*. In accordance with this purpose, the departments of Navy, Order and Provision would assess the matters connected with their own tasks by themselves and their proposals, including amendments to the existing system and new applications, and would be submitted for the approval of the Naval Board.⁸¹ Kapudan Pasha remained his position to be the chief officer who was responsible to the Sultan for all naval business. Being the representative of the navy in the government, his decisions determined the political direction of the navy in parallel with the imperial policy and for this reason, the authority to finalize the proposals would be left to the Kapudan Pasha like in the previous periods as the members of these units were still his advisors.

⁸⁰ DMA, ŞUB, 1865, 80-82 (11 August 1863).

⁸¹ DMA, ŞUB, 1865, 80-81 (11 August 1863). This implementation was only mentioned by Gencer, 2001: 208 among secondary sources and the other sources providing information on this issue referenced Gencer's book which informs the readers only about the names of these newly established units and refers 1864 as the date of this implementation without giving the day and the month. In this section, we clarify this date as 11 August 1863 and give detailed information on the tasks and liabilities of each unit constituted the naval administration system between 1861 and 1867.

By separating the workload of the Naval Board between different units, a reduction in the expenditures was also expected, as it was emphasised in the new regulation that each unit would be responsible to use the budget allocated from the naval treasury only for the necessary issues. When the departments are examined in terms of their assigned tasks, a considerable expansion can be observed in connection with the technical modernization of the Ottoman navy which started from the accession of Sultan Abdülaziz to the throne. Accordingly we will evaluate the administrative responsibilities of each unit in separate headings.

The Naval Board: Behind the office of Kapudan Pasha, it was the most important department of the Ottoman navy for being the main advisory centre for all kinds of affairs related to the naval forces and the arsenals. Being the first naval advisory group of the Kapudan Pasha, it consisted of nine members and a mufti under the supervision of a president and according to the new regulation, the number of members would not be increased as long as a new officer was directly appointed by the Sultan. In case of an important decision, the advice of officers registered to the navy would be consulted by the chairman of the board.⁸²

The board's main authority was to administer the activities engaged in manufacturing and construction in an efficient way. The proposals made by this unit had weight, given that its liabilities laid mainly with the fighting efficiency and employment of the fleet. It held the responsibility of control over all correspondence between the other departments and to obtain the needed approval from the Naval Board, which was the only authority prior to the Kapudan Pasha in planning the new laws and required amendments to the existing regulations. While the other departments had a

⁸² DMA, ŞUB, 1865, 81-82 (11 August 1863).

kind of independency in specifying the needs of their units, there were some other responsibilities held only by the Naval Board, such as the demotions and appointments of the officers whose ranks were higher than lieutenant commander, and the execution of purchasing activities by regulating the tender offers and related negotiations to determine the appropriate prices. In addition to these, the board had the power to impose the penalty of incarceration for more than three years and other heavy sentences.⁸³

Navy Unit: Including a chairman and three other members, this department directed everything about the fleet and its activities were complement of the work of the Naval Board. It engaged in the issues concerning the navy and the naval personnel, and was in charge of the modernization of warships and keeping the navy in good order, guarding the costs of the Mediterranean and Black Sea, and the maintenance and renovation of naval ordnance such as guns, weapons, and cannon balls. The preparation of reforms for the Imperial Naval Arsenal, Danube fleet, and the naval forces located in Basra also fell to this department, which was also concerned with the recruitment process of marines and their training.⁸⁴ It was subordinate to the Naval Board as were the other departments and, considering the variety of its tasks, this unit may be regarded as the main assistant of the board as their operations were closely related.

Order Unit: The duties of the order unit were mainly concerned with the supervision of the rules and regulations and their compliance with the existing code of practice. It also directed the preparation of books regarding the salaries, appointments, and attendance of naval personnel. The accordance of the procedure about the reassigned staff with the present regulations and the progress payments of dependants benefits were monitored by this department. In addition to this, it supervised the

⁸³ DMA, ŞUB, 1865, 82 (11 August 1863).

⁸⁴ DMA, ŞUB, 1865, 82 (11 August 1863).

applications of marines requesting their removal from the naval register and the determination of punishments for crimes such as bribery and corruption.⁸⁵

Provision Unit: The Naval Board was assisted by this unit in regard to the work at the storehouses and depots of the Imperial Naval Arsenal. It directed the provision of required material such as clothing and food for the marines, and oversaw the important technical equipment kept in the storehouses for the Imperial Naval Arsenal. All these necessary supplies were purchased and delivered to the relevant department by the provision unit which was responsible for carrying out the purchasing work punctually. They were in charge of issuing the bills for the purchased goods and examination of their compliance with the contracts made at the time of delivery to the storehouses and controlling the correspondence sent by the Manufacturing Board⁸⁶ regarding timbers purchased or produced for the warships. Additionally, the members were to prepare account books reporting the expenditures of storehouses and depots in the Imperial Naval Arsenal at the end of every year.⁸⁷

As can be seen, the workload distribution according to which the Naval Board conducted its business can be witnessed in detail, highlighting the success of the implementation of the new regulations of 1863. Three conditions, however, principally determined the decision-making: the domestic and foreign policy of the state, the strength of the navy, and the naval estimates. Therefore it was very important for all these branches of the naval administration to work together in an efficient manner to provide consistency for the naval treasury, by taking the required measures to keep the navy in a battle-ready form. This necessity occurred after the accelerated number of

⁸⁵ DMA, ŞUB, 1865, 82 (11 August 1863).

⁸⁶ It was written in the same document that this unit was intended to be established after the acceptance of the new regulation of 1863 (DMA, ŞUB, 1865, 82 (11 August 1863)).

⁸⁷ DMA, ŞUB, 1865, 82 (11 August 1863).

warships positioned the manufacturing and construction works to be foregrounded in the activities of the Naval Board, as the budget was mostly used for these areas. For this reason, the need for another unit emerged within the frame of the new system and was to be specifically connected with the shipbuilding programme which had two main characteristics: the finalization of the work in hand and the new construction and provision of proper management of estimates for the purchase of necessary materials.

In parallel with this purpose, it was stated in the new regulation that the establishment of an additional board called *İmalat-ı Bahriye Meclisi* (Manufacturing Board) would be required.⁸⁸ After our archival research focusing on this matter, we observed that this decision was implemented in the same year.

The Manufacturing Board was established on 27 December 1863 by the Naval Board to supervise the schedule of work done in the arsenals, the provision of required equipment, and its allocation in accordance with the shipbuilding programme. In other words, the construction and reparation of the battleships, and the production and determination of technical equipment and military provisions, fell to this department. To allow manufacturing and construction works to be completed optimally, it held the main responsibility to direct the budget allocated for these purposes which helped preventing unnecessary expenses.⁸⁹

Besides being the chief officer of the harbour council, the harbourmaster was specified as the president of this board as well, and it was decided to appoint three officers as the other members whose ranks ranged from major general to colonel. If consultation with other offices was required, the chairman had the permission to assign more members temporarily.

⁸⁸ DMA, ŞUB, 1865, 82 (11 August 1863).

⁸⁹ DMA, ŞUB, 1882, 41B-2A (27 December 1863); DMA, ŞUB, 1882, 41B-3A (27 December 1863).

The essentialities of all the provisions supplied for warships, and their adequacy were under the control of the manufacturing board which was in charge of informing the storehouses about this issue. In case of an urgent consignment for the navy when commissioned under immediate circumstances, the approval of manufacturing board was sufficient to dispatch needed equipment.

Another important task that the board dealt with was the construction and design of the warships. Following the order issued for a new construction, the qualities such as length, displacement and numbers of guns were determined by Kapudan Pasha and sketch designs prepared by the manufacturing board in compliance with the instructions were sent to the Naval Board to be discussed. In addition to this, reports regarding the condition of ships under repair and their equipment that needed alteration or replacement were drawn up by this unit. The approval of the Naval Board for these two implementations was sufficient and the decisions made on these issues could not be changed without the sanction of the same authority. Additionally, the responsibility for the translation of papers and books published in regard to shipbuilding and machinery sciences in foreign countries was given to the manufacturing board, in order to be kept informed about the alterations and inventions in those areas.⁹⁰

On 30 December 1863, another unit called *Erkan-ı Harbiye Zabıtlığı* (Unit for Senior Naval Officers) was founded in order to *provide a better administration for the usage of naval ordnance such as cannon balls, munitions, weapons and explosive guns*.⁹¹ As may be recalled, this task had fallen to the navy unit among the assisting departments of the Naval Board by the new regulation implemented on 11 August 1863. Thus the workload related to naval ammunition was shifted to this new unit to lighten

⁹⁰ DMA, ŞUB, 1882, 41B-3A (27 December 1863).

⁹¹ BOA, İ.DH, 522-35550-01 (30 December 1863).

the heavy workload of the Naval Board, which supervised all kinds of modernization activities for the Ottoman navy.

In the fifth article of the regulation explaining the work definition of the Unit for Senior Naval Officers, it was advised to train the officers commissioned in this unit on the topic of science of strategy and its practice. Furthermore we learn from the same document that an English officer, named Mr. Philips, was commissioned for the interpretation work of this unit with a monthly salary amounting to 25 pounds sterling.⁹² This situation indicates that the regulations implemented in the British Admiralty Board might be a model for the preparation of new law and ordinances prepared for this unit.

As can be seen, the first phase of the naval administration in the reign of Sultan Abdülaziz resulted in the foundation of several assisting subunits. This necessity emerged from the intense operations carried out in the dockyards, and the tasks and liabilities of naval personnel were clearly defined by the new rules and regulations. This new system, operated between 1861 and 1867, can be seen more clearly in the diagram below:

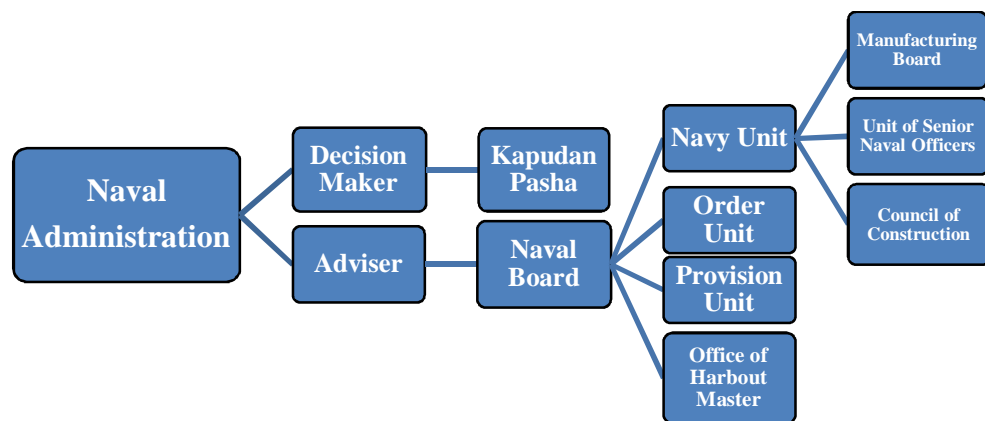


Figure 1. First Phase of the Naval Administration (1861-1867)

⁹² BOA, İ.DH, 522-35550-03 (15 February 1864); DMA, MKT, 52-17 (15 February 1864).

Kapudan Pasha retained his position as the chief officer and decision maker of the navy while the other units were still his advisors. However the rapid expansion of the advisory units for the naval administration after 1863 indicated the traditional nature of Ottoman naval administration was on a path of fundamental change, which led to the foundation of the Ministry of Marine in 1867.

Conclusion

Following the declaration of the Imperial Edict of Gülhane in 1839, the application of Tanzimat reforms revealed the need for a radical innovation of the traditional administrative system of the Ottoman navy and the most significant developments in the naval administration were the foundation of the Naval Board in 1840 and the measures introduced in 1845 to make its position permanent. It kept the characteristics of being an advisory authority, but this also allowed the other officers of the Ottoman navy alongside of the Kapudan Pasha to carry out the preparatory phase of reforms in a more systematic manner, since the responsibility for this issue was given to a permanent council rather than to an unstable structure as the Meclis-i Adiyye. Aside from the assisting council, another two councils were established in 1858 in order to control the construction works and to supervise maritime transport. In parallel with these developments, the rules and regulations of military and administrative personnel of the navy in their assigned position were framed in a more systematic manner with the arrival of the naval code in 1849.

In the reign of Sultan Abdülaziz, the first step taken for the modernization of the naval administration was the division of the workload of the Naval Board into three departments—Navy, Order and Provision—in 1863 to maintain a better management

strategy for providing consistency of the naval treasury, and keeping the navy in a battle-ready form, adapted to the acceleration observed in the number of warships and naval personnel. In addition to this, the affairs of Imperial Naval Arsenal were to be institutionalized with the establishment of the Manufacturing Board and Unit for Senior Naval Officers.

CHAPTER 3. THE MINISTRY OF MARINE AND DEVELOPMENTS IN ADMINISTRATIVE STRUCTURING (1867-1876)

Introduction

In the second phase of the naval administration, the management of the naval fleet was subjected to a fundamental change which brought a new bureaucratic approach to the administrative structuring by altering its military character. This process started with the abolishment of the Office of Kapudan Pasha and the foundation of the Ministry of Marine in 1867. This was the most significant development in naval administration, which we intend to discuss in this present chapter to have a clear analysis on the main characteristics of this new structuring, which was imported directly from British naval experience.

Secondly, we will focus more on the results of the abandonment of the system applied in the first phase of the naval administration, by discussing the reorganisation of administrative units. In the final part of the chapter, the role the British mission played in the naval modernization will be examined by considering the effects of the British advisors commissioned in the Ottoman navy during the reign of Sultan Abdülaziz. As remarked in the first chapter, Britain became a prominent state in providing assistance to the Ottoman Empire, helping to strengthen their naval forces, leading to a long-term Ottoman-British alliance after the Treaty of Hünkâr İskelesi in 1833. We also remarked that the scope of the naval modernization carried out in the period of Sultan Abdülaziz depended mostly on British aid due to the aforementioned reasons, and the British Admiralty was taken as the model in terms of naval administration, education, and technology during this period. To ground this claim on a more solid base in this present

chapter, British advisors who were commissioned in the Ottoman navy with the title of “pasha” will be evaluated in order to assess their effectiveness in reforming the naval administration. To confirm the idea that the new administration system of the Ottoman navy replicated British prototypes under the influence of British advisors, we will examine the effect of the British mission by focusing on the new naval code, which was stated in the Ottoman archival documents to be translated from the British naval code in 1870.

The Abolishment of the Office of Kapudan Pasha and the Foundation of the Ministry of Marine

The most important administrative reform made by the Ottoman navy was the abolishment of the office of Kapudan Pasha, and the establishment of the Ministry of Marine in 1867. As it is understood from the previous section, the acceleration of new units and regulations were the precursor of a radical transition in the nature of the naval administration, as it started to become dominated by its bureaucratic framework as opposed to its military arm towards the middle of Sultan Abdülaziz’s reign. As has been mentioned, this idea had been first presented by the office of Grand Vizier in 1845, with the suggestion for the inclusion of more than one Kapudan Pasha called Admiral in compliance with the practice implemented by the European powers. However it had been refused by the Sultan Abdülmecid and by this means, the office of Kapudan Pasha continued its existence until 1867.

The secondary literature suggests the expansion of the Kapudan Pasha’s authority and responsibility—including the financial administration of the Imperial Naval Arsenal after the abolishment of the Undersecretariat of the Navy in 1861—was

the reason for this radical decision. It is also claimed that because of his increasing responsibilities, the Kapudan Pasha could not supervise the comprehensive modernization of the navy in an efficient manner.⁹³

We can accept this idea to have partial accuracy, as it is clear that the comprehensive naval modernization in the period of Sultan Abdülaziz required a heavy workload. However we also know that the financial administration of the navy was given to the Naval Board beginning in 1845, and the increasing affairs of the Ottoman navy were divided between different offices established in 1863 to assist Kapudan Pasha, who retained the position of being the only decision-maker on naval issues.

For this reason, we think that the abolishment of the Undersecretariat of the Navy in 1861 cannot be claimed as the main reason for the Ottoman navy's abandonment of the traditional administration, whose conventions had existed for centuries, in order to have a more institutional dimension by the establishment of the Ministry of Marine. Considering imperial policy to be the main determiner of the Ottoman naval insight, we believe that the political developments of the Empire's foreign policy, particularly with Britain playing a key role in the kind of remarkable implementations that were carried out for the Ottoman navy during this period, provide a more convincing explanation for the changes.

As previously mentioned, as a consequence of the Russian-French-British cooperation during the Battle of Navarino in 1827, the Ottoman Empire was dragged into a political isolation, which resulted in their unlikely reliance on Russia during the rebellion of Egypt's governors. With the help of the declaration of Tanzimat in 1839, we observe the full support of Britain and France to the Ottomans during the Hungarian

⁹³ Gencer, 2001: 317-318.

Refugees Problem and Holy Lands Question, and this resulted in an Ottoman-British-French alliance against Russia during the Ottoman-Russian war of 1853-1856, known as the Crimean war. After the Treaty of Paris in 1856, the Ottoman territorial integrity was guaranteed by the European powers and the Ottomans protected their status as an ally of Britain and France towards the middle of the 1870s. This inconsistency in the political balance forced the Empire to appeal to different states—which were France and Sweden in the reign of Sultan Selim III, the USA in the period of Sultan Mahmud II, and Britain in the Tanzimat reform era—to receive assistance in their naval modernization programme during the nineteenth century. For this reason, we observe Britain to be the most important country with which the Ottoman Empire had intense relations in terms of naval assistance in the reign of Sultan Abdülaziz. As we shall see in the later chapters of our work regarding naval education and technical modernization, the Ottoman navy started to receive British aid in the planned naval modernization at the beginning of the 1860s. Under the influence of British advisors, consultants, and British made equipment and warships bought to be commissioned in the Ottoman navy, the naval administration also tried to associate itself with the administrative methods implemented in the Royal Navy. Therefore it can be said that the decision to establish the Ministry of Marine was the continuation of the same idea that was brought to the agenda in 1845 to replicate the British naval administration.

Within the scope of this opinion, we see that the proposal first suggested a bilateral administration as military and financial management, which was submitted to the Sultan on 11 March 1867 by the Grand Vizier, stating that while the tasks and liabilities of the office of Kapudan Pasha were limited to naval works, a separate unit called the Ministry of Marine would be established to administer the financial issues of

the Imperial Naval Arsenal such as equipment required for warships, salaries, and materials for the naval personnel.⁹⁴ In addition, it was decided that Hakkı Pasha,⁹⁵ the Minister of the Sultan's Treasury, would be appointed as the Minister of Marine, while his brother Mehmed Emin Efendi and the accountant of the Edirne province, Hafız Said, were to be assigned as the assistant minister and accountant of the navy respectively.⁹⁶ In the same proposal, the formation of another unit was also proposed to assist the Kapudan Pasha with the following statement:

The tasks of Kapudan Pasha will be limited to be the commander of the navy as before and a private board under his supervision consisting of distinguished officers from the naval personnel will be required in the new administration.⁹⁷

The unit mentioned was the Board of Admiralty, and it was established to determine prospective reforms regarding the navy, and to report them to the Kapudan Pasha to be implemented after the mutual approval of both the Kapudan Pasha and the Minister of Marine. On 26 March 1867, the chairman and the members of the board were introduced to the Kapudan Pasha for confirmation.⁹⁸ Vice-Admiral Mustafa Pasha was appointed as the chairman,⁹⁹ and he was replaced with Hacı Vesim Pasha with an annual salary of 272 pounds sterling.¹⁰⁰

In the new system, the financial and the military tasks were completely separated in this way. In other words, while the Kapudan Pasha was the commander of the fleet,

⁹⁴ İ.DH, 560-38989 (11 March 1867); *Takvim-i Vekayi*, 'Vukuat-ı Resmiye', 875, 16 March 1867: 1; Vak'a-nüvis Ahmed Lütfi Efendi, 1989: 14.

⁹⁵ He was the first Minister of Marine although he had no concern with the area of maritime and naval affairs (Akkaya and Ayanoglu, 2009: 105). This shows that the ministers were thought to be assigned to this position as a treasury keeper at first.

⁹⁶ Vak'a-nüvis Ahmed Lütfi Efendi, 1989: 14.

⁹⁷ *Takvim-i Vekayi*, 'Vukuat-ı Resmiye', 875, 16 March 1867: 1; İ.DH, 560-38989 (11 March 1867).

⁹⁸ BOA, AYN.d, 986-50 (26 March 1867).

⁹⁹ *Ceride-i Askeriye*, 'Mevadd-ı Bahriye', 168, 6 April 1867; Vak'a-nüvis Ahmed Lütfi Efendi, 1989: 15. Other members of the board were Rear-Admiral Reşid Pasha, Captain Salih Bey, Commander İsmail Bey, Commander Edhem Bey, Mufti Mehmet Kasım Efendi and Ali Efendi as the Head Scribe (*Ceride-i Askeriye*, 'Mevadd-ı Bahriye', 168, 6 April 1867).

¹⁰⁰ BOA, AYN.d, 986-106 (7 November 1867).

the minister was positioned as the treasury keeper. However, this time the Kapudan Pasha was under the supervision of the minister, who became the main decision-maker of the Ottoman navy, which seems the main difference from the similar implementations in the previous periods.

Hakkı Pasha, appointed as the Minister of Marine on 12 March 1867, presented the regulations concerning the structuring of the Ministry and the duties of the office of Kapudan Pasha on 17 March 1867. After their official confirmation by Sultan Abdülaziz in the same day, the tasks and liabilities of both offices were sent back to the Ministry to require their immediate application on 19 March 1867.¹⁰¹

When the new regulation of the Ministry¹⁰² is examined, it can be immediately seen that it had the same characteristics as the Naval Board had in the first phase of the naval administration in the same period. Broadly speaking, the Ministry of Marine was responsible for all the shipbuilding and maintenance tasks of the Ottoman navy and the provision of technological equipment needed by the Imperial Naval Arsenal. Therefore all the previous units of the navy, which had been commissioned for this purpose, were affiliated with the Ministry. Substantially high expenditures, such as constructing new ships or purchasing naval outfits, would be notified by the Minister to the Sublime Porte and the proposal would be submitted to the Sultan after scrutinizing. If the number of marines and warships needed to be increased, the decision would be made according to the mutual opinion of both the Kapudan Pasha and the Minister of Marine. The expenditures on the naval personnel such as clothing, catering, and salaries would be determined and submitted for the Kapudan Pasha's review by the Board of Admiralty.

¹⁰¹ BOA, AYN.d, 986-48 (19 March 1867).

¹⁰² Gencer, 2001: 323-324.

After the confirmation of the Kapudan Pasha, the Ministry had to be informed for the final approval.

As clearly stated in this regulation, the main aims of the establishment of the Ministry were to provide order to the Imperial Naval Arsenal and to prevent the exceeding of the naval budget. Furthermore, the Minister became the top authorized officer of the Ottoman navy, with general authority for all areas of procurement except the naval recruitment process. However, Damat Mehmed Ali Pasha was not content with this decision and presented his resignation a month after the approval of the new regulation. Correspondingly, the Office of the Kapudan Pasha, which had carried on its existence for hundreds of years, was abolished by the order of Sultan Abdülaziz and the administration of the navy was transferred to the Board of Admiralty which became directly attached to the Ministry.¹⁰³

Structuring the Ministry of Marine: The Division of Workload and the Reorganization of Auxiliary Units

After the foundation of the Ministry of Marine, the administration system experienced significant innovations and new auxiliary units needed to be established in addition to the Naval Board. We can observe this from the archival documents, which show that after 1867, the system of naval administration expanded on a great scale and it began to have a more complex appearance and its new structuring was determined by the regulations dated 1868, 1869, and 1873.

We have explained in detail the tasks and the liabilities of the Ministry of Marine as the decision-maker of the naval administration during this period in the

¹⁰³ BOA, AYN.d, 986-54 (9 April 1867); DMA, MKT, 69-5 (23 April 1867).

previous section. At this point, we will try to clarify the alteration phases of the system after the regulation of 1863 by scrutinizing the areas of responsibility of the auxiliary units in the Ministry of Marine.

The Naval Board

We observe that, after about a year from the foundation of the Ministry, the structure and the functioning of the Naval Board was reorganized. Thus a document preserved in the Istanbul Naval Archive Museum shows that this arrangement was constituted on 9 May 1868.¹⁰⁴ In addition to this, we learn of the establishment of two new units called the Board of Economy and the Office of Naval Personnel set up in order to assist the Ministry from another document dated 17 September 1868.¹⁰⁵

Despite the above-mentioned changes, the Naval Board presented a similar constitutional characteristic in parallel with the system, applied in 1863 as the number of administrative staff totalled ten members, including one chairman and nine members. However the members were divided into two categories as permanent and temporary in 1868, and it was decided that the permanent members would only be assigned for the works of the Naval Board while the temporary ones would be chosen among the officers who were commissioned in the Imperial Naval Arsenal. Items of the agenda to be discussed by the board would be indicated by the president, and if the consensus could not be achieved, decisions made by majority of votes would be also notified by the president to the Ministry. The members, whose votes were against the majority, were obliged to explain the reasons for their opposition to the Ministry in the new system. Additionally, it was emphasised in the new regulation that apart from the

¹⁰⁴ DMA, ŞUB, 53B-1A, 53B-2A (9 May 1868).

¹⁰⁵ DMA, ŞUB, 1901, 53B-5A, 53B-5C, 53B-6A, 53B-7A, 53B-7C, 53B-8A (17 September 1868).

president, the approval of at least four members would be required for decision making and a record book regarding the decisions made by the board would be kept on a regular basis to be sent to the Ministry at the end of every year.¹⁰⁶ As is understood, these new items were added into the regulation of 1868 to ensure the functionality of all the members in the board, and to make better decisions—primarily on expenditures—by evaluating the contrasting opinions as the main tasks and responsibilities of the board were specified as the financial management of the navy after 1868.

As previously discussed, the workload of the board was divided into different auxiliary units after the establishment of the Units of Navy, Order and Provision and the Manufacturing Board in 1863. However, the new regulation of 1868 indicated that all these units were abolished after the foundation of the Ministry of Marine in 1867, and their tasks and responsibilities were given to the Naval Board. Although they were replaced with the Board of Economy and the Office of Marines, we can say that the Naval Board's scope of authority was rather expansive and the newly established boards remained as its assistants in some specific areas. As a result of this, the liabilities of the board were distinguished between three main sections as revenues and expenses, prospective reforms on the navy, and the naval personnel and the activities regarding shipbuilding and manufacturing on 9 May 1868. As the regulations of each section were only summarized in this document,¹⁰⁷ it was not possible for us to make a detailed comparison between the regulations of 1863 and 1868, or to evaluate the alterations made in the board's area of authority. However we found the continuation of this implementation in the Istanbul Naval Archive Museum that indicates that a separate

¹⁰⁶ DMA, ŞUB, 53B-1A, (9 May 1868).

¹⁰⁷ DMA, ŞUB, 53B-2A, (9 May 1868).

regulation for each section was prepared and that they were adopted on 8 September 1868.¹⁰⁸ Now, we will examine each section in separate headings.

Revenues and Expenditures:

Financial management remained the main area of responsibility of the board since it was first established in 1845. Thus, the principal purpose of regulations created to determine the tasks of assisting units was to provide a more economical framework to the naval treasury.

In the regulations formed in 1868, the Naval Board became the only authority on the administration of the revenues allocated for the navy. The income revenue sources included proceeds obtained from coal mines; the tax revenues of Adalar, Kartal, Maltepe and Pendik piers and income gained from the shellfish exportation caught from the shores on the Imperial Naval Arsenal farmed out to third parties with a charge. The basic expenditures were specified as ammunition required for the storehouses of the Imperial Naval Arsenal; provisions, such as clothing and food, for the naval personnel, and timber and related materials that were needed for shipbuilding and manufacturing.¹⁰⁹ For this reason, we can say that all the tasks and liabilities held by the Provision Unit and the Manufacturing Board in 1863 were given to the Naval Board on 8 September 1868, as the income was mostly spent for the naval personnel and the Imperial Naval Arsenal.

Further to this, new responsibilities were added into the existing articles adopted in 1863. Accordingly, the board members and the officers who worked in the storehouses were in charge of controlling available stocks and preparing reports at the

¹⁰⁸ DMA, ŞUB, 1901, 53B-3A, 53B-4A (8 September 1868).

¹⁰⁹ DMA, ŞUB, 1901, 53B-3A (8 September 1868).

end of each year regarding the present condition and the approximate amount of required materials for the next year. With this implementation, the Ministry of Marine intended to determine if the materials were spent on unnecessary purposes, and to purchase the required equipment and provisions for the warships and naval personnel. In fact, in the 7th article of the new regulation, it was provided the office of finance in the Imperial Naval Arsenal was to be commissioned to keep the accounts of the naval treasury in an orderly manner, and it held the responsibility of informing the Ministry of Finance and the Ministry of Marine on a regular basis.¹¹⁰

The Navy and the Naval Personnel:

With the arrival of the new regulation, the Naval Board comprised whole duties and procedures carried out for the navy and the naval personnel, which had been under the supervision of the Navy and Order Units in 1863. Additionally, the implementation of new methods being experimented with in Europe—in order to keep the navy in a battle-ready form and the communication between the Board of Admiralty and ship captains in relation to the instructions to be carried out in the warships—fell to the Naval Board. In addition to these, it held the responsibility for training of naval officers, instructors, and marines to be commissioned in the Ottoman navy by providing consistency in improving the Naval Academy according to the new education methods.¹¹¹

¹¹⁰ DMA, ŞUB, 1901, 53B-3A, 53B-4A (8 September 1868).

¹¹¹ DMA, ŞUB, 1901, 53B-3A, 53B-4A (8 September 1868).

Shipbuilding and Manufacturing:

The third section of the Naval Board's authority was designated for the construction and production works and it was composed of entirely new articles, unlike the other sections.

According to this, the operations carried out in the Imperial Naval Arsenal were divided in two main areas; construction and maintenance of iron plated and wooden ships under the supervision of the chief architect, and manufacturing and repairing of machinery and boilers held by the office of factories. To prevent interruptions during the course of operations, the responsibility of control over the storehouses—to determine if the stocks were sufficient and to monitor the level of construction and production each month—fell to the Naval Board. Furthermore, it directed the following of developments in the machinery engineering and architectural sciences and new inventions on naval industry in Europe.¹¹²

As the productivity of all the operations depended on the existence of a qualified workforce, it was highlighted that the board would maintain a sufficient number of workers in the Imperial Naval Arsenal, and the wages would be determined according to their level of competence in order to pay everyone based on their expertise. In addition, the officers and workers, who caused the equipment to be wasted due to their low performance, laziness, remissness, or effortlessness, would be investigated by the Naval Board and, after their inquest, the report would be prepared by the board to be sent to the Ministry.¹¹³ The main purpose of these arrangements on the naval workers was to provide the completion of operations without any delay by keeping the number of employees at a certain level. We can understand from the 2nd article of the regulation

¹¹² DMA, ŞUB, 1901, 53B-5A (8 September 1868).

¹¹³ DMA, ŞUB, 1901, 53B-6A (8 September 1868).

that the need for more local workers was a further reason for these applications, as it was explained with the following sentence that, “*the primary importance of the Imperial Naval Arsenal was to be rescued from the dependency on foreign workers*”. In order to resolve this problem, the Naval Board held the responsibility for the technical training of naval engineers and naval industry corps, and it was decided to recruit more students for the corps both from Istanbul and outside.¹¹⁴

As is seen, the regulation of 1868 gave a very heavy workload to the Naval Board, as its authority covered all the tasks and liabilities of the auxiliary units established in 1863 and the regulations for the shipbuilding and manufacturing operations were newly specified under the terms of the period.

However, the negative consequences of giving the responsibility of all these operations to a single unit must be understood in 1873 as the Naval Board, which kept its authority arranged by the regulation of 1868 until 1873, was again divided into four units called Navy, Order, Provision and Manufacturing. While the first document we found on this issue shows that the new regulation of this implementation was approved by the Ministry of Marine on 17 April 1873,¹¹⁵ according to the other document,¹¹⁶ this decision was made to regulate the Naval Board in accordance with the regulations carried out by the *Der-i Şura-yı Askeri*.¹¹⁷

As a result of our archival research, we found the regulation of 1873 in the Şura-yı Bahriye classification of the Istanbul Naval Archive Museum. With the title of *Bahriye Meclisi'nin Vezâif-i Mahsusasına ve Terkib-i Devairine Dair Nizamname*, this document confirms the reorganization of workload and its date of approval shown in the

¹¹⁴ DMA, ŞUB, 1901, 53B-5A, 53B-6A (8 September 1868).

¹¹⁵ BOA, A.MKT.MHM, 453-30-1 (18 April 1873).

¹¹⁶ BOA, A.MKT.MHM, 453-30-2 (28 April 1873).

¹¹⁷ It was a military council established in 1838 to deliberate all military problems of the Empire (Hanioglu, 2011: 177).

first document. It also includes detailed information about each unit's area of responsibility.¹¹⁸ In the first article of the regulation, it was emphasised that the Naval Board kept its characteristics of being the centre of all naval affairs, and the matters to be supervised by the auxiliary units summarized as follows:

- *Navy Unit*: The determiner of new reforms in regard to the navy and dockyards and the implementation of regulations for naval personnel, such as their recruitment and training.
- *Order Unit*: Controlling of progress payments on promotions to a higher rank, the approval of donations, and the preparation of award and punishment rulebooks.
- *Provision Unit*: Supply and preservation of all required materials for the naval personnel and their transmission to the relevant departments.
- *Manufacturing Unit*: Supervision of all the shipbuilding and manufacturing operations in the Imperial Naval Arsenal.

In the 5th, 6th, 7th and 8th articles of the regulation, the tasks and liabilities of each unit were explained in detail. When we compare this with the regulations of 1863 and 1868, it can be observed that the same articles were repeated in 1873. Thus the responsibilities of the Naval Board in 1868 regarding the revenues and expenditures were given to the Provision Unit, and the matters related to the navy and naval personnel were divided between the Navy and Order Units in 1873. The articles pertaining to the construction and production of the Imperial Naval Arsenal were copied

¹¹⁸ DMA, ŞUB, 1901, 53B-113A, 53B-114A (17 May 1873).

from the regulation of 1868 and the responsibility of these activities was given to the newly established Manufacturing Unit.¹¹⁹

For this reason, the only difference between the administrative systems of 1863 and 1873 was the abolishment of the Manufacturing Board and its transmission to the Naval Board in 1868. It was established again under the name of Manufacturing Unit in 1873, but its area of authority was remarkably expanded. Correspondingly, we can say that the administration system implemented after the foundation of the Ministry of Marine was abolished in 1873 and the system of 1863 was re-established. This also confirms the failure of the naval administration in a period of ten years from 1863 to 1873 and the alterations made after the establishment of the Ministry had a negative impact on maintaining consistency of administrative units.

The return of naval administration back to its condition of 1863—in terms of its functionality—was not reflected in its structuring as the board consisted of nine permanent and four temporary members, not counting the president, after the arrival of the regulation of 1873. The temporary members were specified as the commanders of navy and the port of Istanbul, the Harbourmaster and the Minister of the Naval Academy. Furthermore the president of the Naval Board was also determined as the chairman of the Navy Unit and the appointment of vice-presidents to the other units was approved. Apart from the vice-presidents, the auxiliary units included two members and a head scribe.¹²⁰

When the last four articles of the regulation are examined, it can be seen that another unit, called general commission, was placed into the administrative mechanism in 1873. As is understood, this unit was established to discuss and finalise the affairs

¹¹⁹ DMA, ŞUB, 1901, 53B-113A, 53B-114A (17 May 1873).

¹²⁰ DMA, ŞUB, 1901, 53B-113A, 53B-114A (17 May 1873).

considered of substantial importance. It was also made compulsory for the all assisting units to be gathered once a week under the presidency of the chairman of the Naval Board in the office of the Navy Unit. The issues to be discussed, solely by the general commission, were the preparation of new codes of practice or modifications on existing regulations and the decisions regarding the purchasing of required materials amounting to more than 227 pounds sterling. Furthermore, the responsibilities of demotions of senior officers and appointments of the officers whose ranks were higher than lieutenant commander were directed by the general commission. It also had the power to impose the penalty of execution or incarceration for more than three years.¹²¹

The naval administration system configured in 1873 remained in operation until the end of the reign of Sultan Abdülaziz in 1876. Making new regulations after the arrival of the Ministry of Marine was perceived as an obligation and depending upon the unstableness of the executive units, frequent reassignments and dismissals were experienced by the administrative staff. Due to changing decisions in the course of just a few short years, which saw constantly altered regulations, expanded tasks and responsibilities and newly established units, a persistent administrative vision could not be developed. This had a negative effect on the purpose of providing consistency for both financial and naval administration, which was one of the biggest needs of the Ottoman navy, especially towards the 1870s.

The Board of Economy

Depending upon the acceleration of construction and shipbuilding activities and the increasing number of administrative and naval personnel towards the middle of the

¹²¹ DMA, ŞUB, 1901, 53B-114A (17 May 1873).

reign of the Sultan Abdülaziz, a new board called the Board of Economy was established on 17 September 1868 to assist the Naval Board pertaining to purchases of technical equipment and provisions.

Data obtained from the secondary literature suggests that the Manufacturing Board established in 1863 was replaced with the Board of Economy on 18 March 1867. Apart from this information, it only includes the basic tasks of the board and the names of its members.¹²² However, a document we found in the Istanbul Naval Archive Museum clearly indicates that the Board of Economy was established on 17 September 1868 as a new administrative unit.¹²³ In addition to this, when we compare the regulations of 1863 and 1868 prepared for the Manufacturing Board and the Board of Economy respectively, it can be seen that their areas of responsibility were different from one another. As we mentioned before, the main tasks of the Manufacturing Board were determined to be the assurance that shipbuilding and manufacturing activities would be carried out in an orderly manner. On the other hand, the Board of Economy was founded for financial management and its liabilities were almost the same as the Provision Unit established in 1863. For this reason, we can say that after the abolishment of the Provision Unit on 8 September 1868, it was replaced with the Board of Economy on 17 September 1868. The board's membership consisted of one chairman and five permanent members, and its main responsibility was determining the type and amount of the required materials with an appropriate price. In addition, board members were expected to conclude the tender offers and auction sales in the most accurate condition. Following the presentation of product samples by artisans and merchants, the prices and the way of payment were specified on a certificate to be controlled by the

¹²² Gencer, 2001: 333-334.

¹²³ DMA, ŞUB, 1901, 53B-5C, 53B-6A, 53B-7A (17 September 1868).

board to finalize the purchases with a contract. In addition to this, the responsibility to prevent collusive tendering by investigating the general condition of the market was given to the board members.¹²⁴

To provide more sources of income to the naval treasury, materials determined as unsuitable for use were sold through the way of auction sales by the Board of Economy. Furthermore the inspection of the expenditures and purchases of the storehouses of victuals, garment, munition, timber, coal, and wood in the Imperial Naval Arsenal and the coal stores of the other dockyards every four months fell to the board and the audit reports were presented to the Ministry.¹²⁵

As can be seen, this was essentially a continuation of the Provision Unit and after the re-division of the Naval Board in 1873, we see that the re-established Provision Unit had the same responsibilities as the Board of Economy. As we could not find any document that confirms the abolishment of the Board of Economy after 1873, it can be said that it was positioned in an assisting role next to the Provision Unit in terms of the workload relating to tender offers and auction sales until the end of Sultan Abdülaziz's reign.

The Board of Admiralty and the Office of Naval Personnel

As previously mentioned, the Board of Admiralty was established as an auxiliary unit of the office of Kapudan Pasha on 11 March 1867. Following the abolishment of the Office a month after the foundation of the Ministry of Marine, the Board was positioned as the assistant of the Naval Board on affairs regarding to the Ottoman navy and the naval personnel such as determining the required reforms, carrying out the recruitment

¹²⁴ DMA, ŞUB, 1901, 53B-6A (17 September 1868).

¹²⁵ DMA, ŞUB, 1901, 53B-7A (17 September 1868).

process, and investigating the essential materials for the warships and navy personnel.¹²⁶ Comparing its tasks and liabilities with the Navy Unit established in 1863, the Board of Admiralty can be seen as an extended version of the Navy Unit after 1867.

We found that another unit was established for the affairs of naval personnel on 17 September 1868. This new office, called the Office of Marines, was for the routine operations of the navy and navy personnel and the implementation of military cases.¹²⁷ Accordingly, this office held the responsibility of carrying out the procedures regarding the marines, who participated in naval operations according to the recruitment regulations or voluntarily, the students of the Naval Academy and the naval industry corps. It also directed the distribution of naval pilots to the warships; promotions of naval personnel and the students of the naval industry corps; and determined the penalties for the officers who contravened against the military laws by reason of crimes and misdemeanours, such as theft or uncleanness. The task of controlling the information pertaining to the students of the Naval Academy, who succeeded in the general examinations carried out at the end of each year, all fell to this department.¹²⁸

Considering the similarity between the two departments in terms of their areas of authority, it might be accurate to say that the Board of Admiralty was replaced with the Office of Marines in 1868, and eventually annulled in 1873 while its tasks and liabilities were divided between the re-established units of Navy and Order. However, we could not find any corroborating documents in Turkish archives to support this assessment. Therefore the Board of Admiralty and the Office of Marines can be seen as

¹²⁶ *Takvim-i Vekayi*, 'Vukuat-ı Resmiye', 875, 16 March 1867: 1.

¹²⁷ DMA, ŞUB, 1901, 53B-7C, 53B-8A (17 September 1868).

¹²⁸ DMA, ŞUB, 1901, 53B-8A (17 September 1868).

the auxiliary units of the Navy and Order Unit after 1873, and they continued their existence in the naval administration until the end of the reign of Sultan Abdülaziz.

As we could find no trace of another alteration or a new implementation for the Ministry of Marine after 1873, it can be said that naval affairs were administrated according to the system of 1873 until 1876. We can see all the units of the naval administration from the foundation of the Ministry to the end of this period from the diagram below:

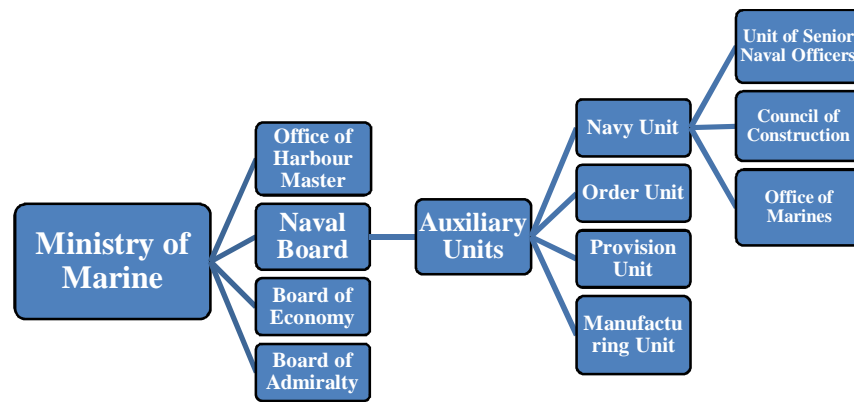


Figure 2. Second Phase of the Naval Administration (1867-1876)

Constant changes made to the administrative mechanism from 1867 to 1876, brought about a problem of adaptation for the personnel to their tasks and responsibilities, which were unfamiliar in comparison to traditional administration methods implemented for centuries. For this reason, a stable administrative staff, who could handle the comprehensive modernization of the Ottoman navy, could not be constituted in this period. In fact we see that in a period of nine years between 1867 and 1876, fourteen officers were assigned as the Minister of Marine and the office of the Ministry was transferred nineteen times when we take into account the repeating appointments. The following table includes information about the names of these

officers and the governmental class that they belonged to. It also shows the appointment and dismissal dates and their terms of office as the Minister of Marine:¹²⁹

Table 2. The Officers, who were appointed as the Minister of Marine during the Reign of Sultan Abdülaziz

The Name of the Officer	Origin	Date of Instatement	Date of Removal	Term of Office
İsmail Hakkı Pasha	Scribal Class	13 March 1867	8 March 1868	1 year
Mahmud Nedim Pasha	Scribal Class	8 March 1868	11 September 1871	3 years and 6 months
Ferit Abdülhamit Pasha	Scribal Class	11 September 1871	7 December 1871	3 months
Fosfor Mustafa Pasha	Army	7 December 1871	29 January 1872	1 year and 2 months
Salih Hasan Pasha	Army	29 January 1872	3 March 1872	1 months
Moralı İbrahim Pasha	Navy	3 March 1872	1 August 1872	5 months
Sakızlı Ahmet Esat Pasha	Army	1 August 1872	12 October 1872	2 months
Fosfor Mustafa Sıtkı Pasha (second time)	Army	12 October 1872	6 November 1872	1 month
Mehmet Namık Pasha	Army	6 November 1872	5 January 1873	2 months
Hüseyin Avni Pasha	Army	5 January 1873	16 February 1873	1.5 months
Hasan Rıza Pasha	Army	16 February 1873	June 1873	4 months
Kayserili Ahmet Pasha	Navy	June 1873	28 January 1875	7 months
Sakızlı Ahmet Esat Pasha (second time)	Army	28 January 1875	26 May 1875	4 months
Mehmet Rauf Pasha	Army	26 May 1875	20 September 1875	4 months
Hasan Rıza Pasha (second time)	Army	20 September 1875	October 1875	1 month
Mehmet Namık Pasha (second time)	Army	October 1875	November 1875	1 month
Hasan Rıza Pasha (third time)	Army	November 1875	13 January 1875	2 months
İbrahim Derviş Pasha	Army	13 January 1876	20 April 1876	3 months
Abdülkerim Nadir Pasha	Army	20 April 1876	6 May 1876	16 days

¹²⁹ Akkaya and Ayanoğlu, 2009: 105-113 (These pages also include detailed information about these officer's lives, educational background and their positions in the governmental and military office); Kunalalp, 2003: 98.

Considering the authority of the Ministry of Marine, which covered the administration and the modernization of the warships, dockyards, naval personnel and the naval treasury, it seems logical that the Minister, as the president and decision maker of naval affairs, should be chosen from among the officers, who had a good theoretical and practical knowledge and experience in the maritime field. However, when the table is analysed, it can be seen that while İsmail Hakkı Pasha, Mahmud Nedim Pasha and Ferit Abdülhamit Pasha belonged to the scribal class; Fosfor Mustafa Sıtkı Pasha, Salih Hasan Pasha, Sakızlı Ahmet Esat Pasha, Mehmet Namık Pasha, Hüseyin Avni Pasha, Hasan Rıza Pasha, Mehmet Rauf Pasha, Lofçalı İbrahim Derviş Pasha, and Abdülkerim Nadir Pasha were the officers of the army, and were originally commissioned for the land forces. Only two officers, Moralı İbrahim Pasha and Kayserili Ahmet Pasa, who had been trained and commissioned in the Ottoman navy, were familiar with naval affairs. In addition to this, Fosfor Mustafa Pasha, Sakızlı Ahmet Esat Pasha and Mehmet Namık Pasha were appointed to the same office for a second time in different terms, and Hasan Paşa held the same post for three separate times in the years of 1873 and 1875. The presidency of the Ministry was transferred two times in 1871; five times in 1872; three times in 1873; five times in 1875 and two times in 1876, and the majority of the assignees were dismissed in less than six months.

Indeed, this table is sufficient to reveal the definite failure of the application of a new system copied from Europe onto a traditional administration structure, which was not ready to cover all required implementations with its administrative staff. Thus, in the period of Kayserili Mehmet Pasha assigned as the Minister of Marine for the second time on 7 May 1876, the Ministry was abolished and the Office of Kapudan Pasha was re-established on 1 June 1876. After his term of office, which was approximately seven

months, Mehmet Rauf Pasha was appointed for the same task on 1 January 1877 and the Ministry was founded again. On 11 May 1878, Hacı Vesim Pasha held the same responsibility and the Office of Kapudan Pasha was re-established following the annulment of the Ministry for the second time. On 8 January 1880, the Ministry was re-established under the presidency of Bozcaadalı Hasan Pasha and this situation was not changed again until the end of the Ottoman Empire.¹³⁰ As can be seen, consistency could not be achieved in the naval administration, even after the period of Sultan Abdülaziz and the Ottoman navy was deprived of the administrative and naval personnel who could operate one of the most powerful navies of its time.

The Role of the British Mission in the Modernization of Ottoman Naval Administration

The strong link established between Britain and the Ottoman Empire in naval relations was a natural result of Lord Palmerston's approach towards the Eastern Question. After Sultan Abdülmecid's approval regarding the instatement of British naval officers in the Ottoman navy in 1840, their directives and recommendations played an active role in progress made on naval modernization.

Within the scope of this policy, Britain's first intention was to guarantee the security of Istanbul and the Straits against a possible Russian attack by allowing skilled and experienced naval officers to enter the service of Ottoman Sultans, and in doing so, strengthening the Ottoman navy. Far from an altruistic gesture, enhancing efficiency in Ottoman naval affairs through naval advisors had advantages for Britain. In parallel with the inclusion of armour technology into the shipbuilding activities carried out in

¹³⁰ Gencer, 2001: 340-341.

the Imperial Naval Arsenal from 1861, the need for new technical equipment and skilled workers for the construction and maintenance of the warships considerably increased. As the facilities of the Imperial Naval Arsenal were not sufficient to apply these new technologies in terms of producing the required equipment and trained workers, their importation became compulsory for the Ministry of Marine.

Britain was aware of the financial benefits of this importation to the British shipbuilding and ammunition companies. For this reason, British naval officers were used as the bridge for the communication between the Ottoman Empire and British companies in ordering new warships and required materials. In fact, they were still the officers of the British Admiralty and their first responsibility was to inform the Admiralty on a regular basis about the condition and development of the Ottoman navy, which also meant Britain had a good opportunity to observe the country on a first-hand basis. Among these officers commissioned in accordance with this purpose during the reign of Sultan Abdülaziz, Müşavir Pasha, Hobart Pasha, and Woods Pasha became prominent for their contributions to the modernization of the Ottoman navy.

Adolphus Slade

Adolphus Slade, who was also known as *Müşavir* Pasha, went into service in the Ottoman navy in 1850 and held this role up to 1866. Graduating from the Royal Naval College in Portsmouth with a gold medal, he spent three years in the South American Station and was commissioned in the British squadron at the Battle of Navarino in 1827.¹³¹ After being promoted to lieutenant, Slade went to Istanbul in 1829 and upon the invitation of Kapudan Pasha Papuçu Ahmet Pasha, he participated in the Turkish

¹³¹ Laughton, 2004a; Soydemir, 2007: 33; Çoker, 1994: 167.

fleet that sailed to the Black Sea in the same year. After travelling a few years in the Ottoman Empire and Greece, he was advanced as commander in 1841 and commissioned in the brig called *Recruit* around the coasts of Spain and Azores. In 1849, he was promoted again, to captain, and due to the diplomatic crisis between the Ottoman Empire and Austria, known as Hungarian Refugees Problem, he was seconded by the Ottoman navy in 1849.¹³²

On 16 August 1850, he officially entered the service of the Ottoman Empire with the rank of rear admiral, which was higher than his previous rank given by the Royal Navy.¹³³ Upon the outbreak of the Crimean War, he was invited for the meeting of the Naval Board by the Kapudan Pasha as an advisor, and appointed to a frigate called *Nusretiye* assisting the Ottoman fleet in the Black Sea.¹³⁴ On 30 November 1853, he was stationed in Sinop when the Russian navy destroyed the Ottoman fleet in Sinop's port at the time he commissioned in the steamer called *Taif*. Following the beginning of the raid, he had to go back to Istanbul to inform the government about the disaster.¹³⁵ His criticism on the slow progress of the combined navy of the allied powers—particularly after the destruction of the Ottoman fleet in Sinop—caused a disagreement between himself and the commanders of the British and French fleets—Admiral Dundas and Admiral Hamelin—resulted in a change of his position and assignment to the Imperial Naval Arsenal, which meant his removal from active operations.¹³⁶

Later he was awarded with the rank of vice admiral on 14 April 1858 and appointed to the presidency of the office of Harbourmaster in Istanbul on 6 July 1859.

¹³² Laughton, 2004a; Soydemir, 2007: 35; Çoker, 1994: 167; Bedirhan and Atabey, 2013: 130.

¹³³ Soydemir, 2007: 35-36.

¹³⁴ Soydemir, 2007: 39-40.

¹³⁵ Badem, 2011: 130.

¹³⁶ Laughton, 2004a; Badem, 2011: 132.

In 1863, he was conferred with the second class order of Mecidiye. However, it was stated by the office of the Grand Vizier that employment of an officer with the rank of vice admiral was regarded as unnecessary after the establishment of the Court of Maritime Commerce in 1865. For this reason, the Kapudan Pasha was informed about the recommendation of the retirement of Müşavir Pasha but upon the request of Slade, he continued his service as a member of the Naval Board and his retirement was approved by Sultan Abdülaziz, with a monthly salary amounting to 4000 kuruş on 22 May 1866. He was also awarded with a second class order of Osmaniye for his sixteen years of service in the Ottoman navy after the approval of his retirement.¹³⁷

Augustus Charles Hobart Hampden

Slade's successor was Augustus Charles Hobart Hampden, known as Hobart Pasha, who was the most effective British officer in the Ottoman navy as the naval modernization was directed by Hobart Pasha from his instatement to the end of the reign of Sultan Abdülaziz.

He was born in Walton-on-the-Wolds, Leicestershire on 1 April 1822 as the third son of Augustus Edward Hobart, sixth earl of Buckinghamshire.¹³⁸ Entering the Royal Navy in 1835, he continued his education in the ships called *Rover* and *Rose*, commissioned in Spain and South America respectively.¹³⁹ In 1842, he attended *Excellent* at Portsmouth and later *Dolphin*, which was on duty in the Brazilian Station to

¹³⁷ BOA, AYN.d, 986-2 (22 May 1866).

¹³⁸ Hobart Pasha, 1915: 19; *Southland Times*, 2704, 6 March 1877: 4; *New Zealand Herald*, 14, 4808, 14 April 1877: 1; *Grey River Argus*, 21, 2717, 28 April 1877: 2; *Thames Star*, 7, 2640, 25 June 1877: 2; Lane-Poole, 2004.

¹³⁹ Hobart Pasha, 1915: 21, 33

supress the slave trade between African coasts and South America.¹⁴⁰ After 1844, he returned to Britain and was assigned to the Queen's Yacht, *Victoria and Albert*, on account of his success in South America.¹⁴¹ In September 1845, he was promoted to lieutenant and appointed first to *Rattler* in the Mediterranean and later *Bulldog* in 1847.¹⁴² In the same vessel, he was in charge as a first lieutenant in the Baltic station at the beginning of the Crimean War in 1854 and he took command of the *Driver* for a short time during the Battle of Bomarsund. He attended the flagship of Admiral Dundas, *Duke of Wellington*, in 1855 and was then advanced to commander.¹⁴³ Until 1861, he took charge of the coastguard service in Dingle, County Kerry and later Malta. In 1861, he took the command of *Foxhound* in the Mediterranean and after his promotion to captain, he retired from the Royal Navy in 1863.¹⁴⁴ In the meantime, the American Civil War was waging. Being in sympathy with the cause of the South, he participated in blockade running against the blockade of Southern ports imposed by the Federal Fleet and ordered by Abraham Lincoln in 1861.¹⁴⁵ He took command of a double-screw steamer called *Don* and engaged in several passages into Wilmington and Charleston under a false name as Captain Roberts.¹⁴⁶ During four years in America, his skilful seamanship gained him notoriety, and following his return from New York, he decided to make a continental tour during which he found himself visiting Istanbul in 1867.¹⁴⁷

¹⁴⁰ Hobart Pasha, 1915: 60.

¹⁴¹ Hobart Pasha, 1915: 88-89.

¹⁴² Hobart Pasha, 1915: 89-90.

¹⁴³ Hobart Pasha, 1915: 96-97, 98-100.

¹⁴⁴ Hobart Pasha, 1915: 101-104.

¹⁴⁵ Davies, 2001: 28, 92.

¹⁴⁶ Captain Roberts, 1908:143-150; Woods Pasha, 1924b: 151. His false name was written as Captain Harvey in a paper issued in 1877 (*Thames Star*, 7, 2640, 25 June 1877: 2).

¹⁴⁷ Hobart Pasha, 1915: 199.

Upon the recommendation of his brother Lord Hobart,¹⁴⁸ he was accepted by the Foreign Minister Fuad Pasha, who later offered him the chance to supervise the reorganization of the Ottoman navy. In their first conversation, Fuad Pasha explained the difficulty that the Ottoman government had suppressing the Cretan Revolt due to the aid received by the insurgents from Greece.¹⁴⁹ The revolt had started in April 1866 due to the desire for unification to the mainland,¹⁵⁰ which was encouraged by Greece.¹⁵¹ It gathered momentum, and complaints made by the Christian population regarding the local administration and taxation¹⁵² extended up to the British consul, who notified the British government about the possibility of further disturbance. On 18 May 1866, it was considered necessary by the Ottoman government to increase the number of warships in the coasts of the Aegean Sea, and the ships commissioned to chase the blockade-runners and to dispatch the troops to the island were divided into two fleets as Rumelia and Cezayir-i Bahr-i Sefid. The Rumelia fleet was ordered to cruise from Volos to Preveza in Yanya province to prevent the entrance of munitions and other forbidden materials under the command of vice-admiral Edhem Pasha.¹⁵³ On 7 June 1866, three ships arrived in the island with 2520 troops on board¹⁵⁴ and the total number of the Ottoman army in Crete reached 22000 on 27 July 1866.¹⁵⁵

¹⁴⁸ Woods Pasha, 1924b: 151. He was an officer of the British Ministry of Trade and was sent to Istanbul with Mr Foster in 1861 to check the current financial situation of the Empire and to inspect the allocation of loans (Geyikdağı, 2011: 36).

¹⁴⁹ Hobart Pasha, 1887: 186.

¹⁵⁰ *The Annual Register: A Review of Public Events At Home and Abroad For the Year 1867*, 1868: 150-151.

¹⁵¹ Mahmud Celaleddin Paşa, 1979: 45.

¹⁵² TNA, PRO, ADM, 12-781 (20 August 1866).

¹⁵³ DMA, MKT, 70-7 (18 May 1866); Vak'a-nüvis Ahmed Lütfi Efendi, vol. 11, 1989: 56.

¹⁵⁴ TNA, PRO, ADM, 12-781 (7 June 1866).

¹⁵⁵ TNA, PRO, ADM, 12-781 (20 August 1866). According to the information given to William James Stillman, the USA consul in Crete, by the secretary of governor Mustafa Naili Pasha after the suppression of the revolt, this number was 23000 (Stillman, 1874: 85).

Contrary to the Cretans' hopes, Lord Clarendon and his successor Lord Stanley approached this problem as an internal affair of the Ottoman Empire and non-intervention was determined as the policy followed by the new Derby government on this issue.¹⁵⁶ Thus, the island would be an important station after the future opening of the Suez Canal, and continuation of the Ottoman sovereignty over Crete was for the benefit of Britain's interest in the Indian trade route.¹⁵⁷ Disappointed Cretans appealed to sympathetic Christian administrations and following the Russian attempts to persuade France, both countries informed Britain about their support for the Greek government's attempts to apply pressure on the Sublime Porte to grant extended privileges to the island, and agree to the establishment of a similar administration to which existed in Serbia.¹⁵⁸ In order to remove French intervention and to provide an answer to Russia's concerns, Lord Stanley suggested to the Grand Vizier Ali Pasha to send a Christian governor to the island and set up a combined administrative board.¹⁵⁹ However, the Ottoman Empire was determined not to make any compromises on the administration of the island and, upon the appointment of Mustafa Naili Pasha as the new governor on 10 September 1866,¹⁶⁰ the Cretans declared their independence one day later, and the aid provided by Greece considerably increased. Consequently, this caused Britain to forbid the British flagged ships from carrying Cretan refugees from January 1867¹⁶¹ and to warn Greek government not to expect help from other countries when a possible interruption emerged in their diplomatic relations with the Ottoman Empire. In spite of

¹⁵⁶ *The Annual Register: A Review of Public Events At Home and Abroad For the Year 1867*, 1868: 152; *The Annual Register: A Review of Public Events At Home and Abroad, For the Year 1868*, 1869: 133-134; Bourne, 1956: 83.

¹⁵⁷ Bourne, 1956: 81.

¹⁵⁸ Mahmud Celaleddin Paşa, 1979: 46.

¹⁵⁹ *The Annual Register: A Review of Public Events At Home and Abroad For the Year 1867*, 1868: 151.

¹⁶⁰ Vak'a-nüvis Ahmed Lütfi Efendi, vol. 11, 1989: 56.

¹⁶¹ TNA, PRO, ADM 12-796 (2 January 1867).

Britain's warnings, Russian, French, and Italian flagged ships cooperated in the delivery of the Cretan refugees to the mainland.¹⁶²

Although Mustafa Pasha was appointed to command the Ottoman fleet, he failed to prevent the Greek-flagged vessels loaded with munitions and provisions¹⁶³ and this resulted in his replacement with İbrahim Pasha and Vesim Pasha. On 20 August 1867, Greek-flagged *Arkadi* loaded with arms and supplies,¹⁶⁴ was blockaded and captured by the Ottoman steamer *İzzeddin* under the command of Hasan Bey while it was about to land to unload near the coast of Lakvance.¹⁶⁵ This was the only success of the Ottoman navy against blockade runners during the revolt.

During their conversation with Hobart, Fuad Pasha pointed out the defensive nature of the international law to the blockade-runners, as the Ottoman government were told that a blockade-running ship could not be chased more than ten miles from the coast, which led the revolt to be extended in scale; this was also the main reason for the failure of the Ottoman fleet against Greek-flagged ships.¹⁶⁶ Upon Hobart's recommendations to stop the blockade-running without violating any law, Fuad Pasha told Sultan Abdülaziz's offer to him to be commissioned for the Ottoman government in their next meeting with the following statements:

I have consulted His Majesty the Sultan, who desires me tell you that if you would wish to take the service with the Ottoman Government, arrangements can be made whereby you can do so, only you must take the risk and responsibility of offending your own people.¹⁶⁷

¹⁶² Beyhan, 2011: 154.

¹⁶³ It was reported to the British Admiralty that the Turkish forces were wasting their time and strength in useless expeditions against the insurgents (TNA, PRO, ADM 12-796, 10 March 1867).

¹⁶⁴ Stillman, 1874: 114.

¹⁶⁵ Beyhan, 2011: 152. In *Wellington Independent*, it was stated on 27 July 1867 that the *Ottoman navy blockaded the Greek ship Arcadian at Cirego, one of the Ionian Islands* which points out an early contact in blockading Arcadi's aid to the insurrections just before its capture on August 1867 (*Wellington Independent*, 22, 2550, 27 July 1867: 6).

¹⁶⁶ Hobart Pasha, 1887: 187.

¹⁶⁷ Hobart Pasha, 1887: 188.

Following his acceptance, he entered the service of the Ottoman navy on 30 November 1867.¹⁶⁸ As a result of Fuad Pasha's concerns, Hobart was asked by the British Admiralty whether he entered into any engagement in directing the Cretan blockade by Turkish forces on 30 December 1867.¹⁶⁹ In the same day it was noted that Captain Hobart was in Istanbul and was called upon to state if he had been acting in any naval capacity under any foreign government.¹⁷⁰ However, a letter written by the British consul C. H. Dickson on 17 December 1867 shows that Captain Hobart was in one of the Imperial steam yachts called *Tulia* (Talia), which arrived at Canea with supplies and specie for the army. Following his arrival, he went to Candia to meet the Grand Vizier Ali Pasha.¹⁷¹ According to further correspondence, the British Admiralty was not pleased with his instatement and reported to the British consul at Canea to inform Hobart that the Admiralty could not allow him to engage in this service as it was contrary to the regulations of the Royal Navy.¹⁷²

Arriving at Crete on 17 December 1867, Hobart's observations in Suda Bay expressed his conviction that the weakness of the Ottoman fleet originated from the Ottoman naval officers' over-cautious approach towards blockade runners and their reluctance to break the international law, which rendered the warships powerless against their Greek opponents. However we understood from Woods Pasha's recollections that

¹⁶⁸ Mr Hammond to the Secretary of the Admiralty, 26 December 1867, *Correspondence Respecting the Removal From Her Majesty's Navy of Captain Hobart, and His Subsequent Reinstatement*, 1877: 1; TNA, PRO, ADM 12-796 (26 December 1867); TNA, PRO, ADM, 12-813 (3 January 1868); Hobart Pasha, 1887: 190; Laughton, 1886: 42; Soydemir, 2007: 70. According to the contract made on his instatement, his term of office was determined as five years with a monthly salary of 100 pounds sterling. In a paper issued in 1877, his salary was written as 10000 pounds sterling (*Thames Star*, 8, 2640, 25 June 1877: 2).

¹⁶⁹ The Secretary to the Admiralty to Captain Hobart, 30 December 1867, *Correspondence ...*, 1877: 2. According to a paper issued in 1877, Lord Stanley was informed by the Greek Minister about his entering the Ottoman service to direct the Cretan blockade (*Timaru Herald*, 28, 1762, 23 June 1877: 4).

¹⁷⁰ The Secretary to the Admiralty to Mr Hammond, 30 December 1867, *Correspondence ...*, 1877: 2.

¹⁷¹ Mr Hammond to the Secretary to the Admiralty, 3 January 1868, *Correspondence ...*, 1877: 2.

¹⁷² TNA, PRO, ADM, 12-813 (3 January 1868); The Secretary to the Admiralty to Mr Hammond, 7 January 1868, *Correspondence ...*, 1877: 2; The Secretary to the Admiralty to Captain Hobart, 7 January 1868, *Correspondence ...*, 1877: 3.

the ignorance of the law was not restricted to the Turkish officers. It was stated by Woods Pasha that upon Hobart's recommendation, Grand Vizier Ali Pasha invited the captain of the French warship anchored in Suda Bay, and he was examined by Hobart Pasha regarding the reason for his presence in Cretan waters. Under the pressure made by the direct questions and answers of Captain Hobart, the French captain had to accept the illegality of his position and left immediately from the island.¹⁷³

After controlling the situation of the blockade, Hobart returned to Istanbul to inform Fuad Pasha about his views on the suppression of the revolt. We understood from a letter, which was sent to Lord Stanley from Henry Elliot, British Ambassador in Istanbul, on 4 January 1868, that his return was in the first days of 1868 and Hobart told Henry Elliot that he was under no engagement with the Turkish Government, but when the Cretan insurrection was over, it was not impossible that he might apply for the permission of the British Government to take employment in the Ottoman service.¹⁷⁴ After a week, we see that Hobart also tried to persuade the British Admiralty about his compliance with the regulations of the service of the Royal Navy, as he informed the Admiralty that his visit to Crete was of a private nature, and that he had not entered the Ottoman navy to direct the blockade of Crete.¹⁷⁵ Lord Stanley's opinion on Hobart's situation was of great importance, as following Henry Elliot's and the British Admiralty's notifications, on 19 January 1868 and 6 February 1868,¹⁷⁶ Lord Stanley stated that if Hobart entered the Ottoman naval services without the sanction of the

¹⁷³ Woods Pasha, 1924b: 151.

¹⁷⁴ Mr Elliot to the Lord Stanley, 4 January 1868, *Correspondence ...*, 1877: 3; TNA, PRO, ADM, 12-813 (15 January 1868); TNA, PRO, ADM, 12-813 (4 February 1868).

¹⁷⁵ Captain Hobart to the Secretary to the Admiralty, 13 January 1868, *Correspondence ...*, 1877: 4.

¹⁷⁶ Mr Elliot to the Lord Stanley, 19 January 1868, *Correspondence ...*, 1877: 4; The Secretary to the Admiralty to Mr Hammond, 6 February 1868, *Correspondence ...*, 1877: 5.

British Admiralty, his name would be struck off the list of Royal Navy.¹⁷⁷ On the other hand, an imperial decree was issued on 19 January 1868, declaring the definite entering of Captain Hobart to the service of the Ottoman Government as a member of the Board of Admiralty¹⁷⁸ and Captain Hobart acquainted the Royal Navy about his acceptance of entering the service of the Ottoman Navy as a *member of the Board of Admiralty and Director-General of Naval Schools* on 24 January 1868, and requested his name to be on the reserve list to be able to serve for the Royal Navy in case of war.¹⁷⁹

Archival data also shows that another British officer, Captain William Wiseman,¹⁸⁰ had been already thought to have taken command in the Ottoman navy on 11 June 1867. Following Sultan Abdülaziz's visit to Queen Victoria in the same year, three officers of the Royal Navy were requested by the Ottoman Government on 28 May 1867 to assist in improving the condition of the Ottoman naval service, and one of whom was to be commissioned as the member of the Board of Admiralty while the other two were to serve as instructors.¹⁸¹ Later, Captain Wiseman was deemed suitable for this task upon the recommendation of the British Admiralty, which took his service in the Ottoman navy for granted and even reported to him the observations of the French Ambassador in Istanbul on the state of the naval schools and military education on 5 June 1867.¹⁸² However, sending a British naval officer to assist at a council formed for the reorganization of the Turkish Navy in the crisis of the Cretan Insurrection and

¹⁷⁷ Mr Hammond to the Secretary to the Admiralty, 8 February 1868, *Correspondence ...*, 1877: 5.

¹⁷⁸ Soydemir, 2007: 72; BOA, AYN.d, 986-124 (2 February 1868).

¹⁷⁹ TNA, PRO, ADM, 12-813, 24 January 1868; Captain Hobart to the Secretary to the Admiralty, 24 January 1868, *Correspondence...*, 1877, p. 6.

¹⁸⁰ He was the son of 7th Baronet Captain Sir William Saltonstall Wiseman. Before being appointed to the Australian station as the fourth commodore in April 1863, Captain Wiseman was commissioned in the stations located in the Mediterranean, South America, North America, and West Indies. He was promoted to be the commodore of the Australian station in 1866 and rear admiral in 1869, just before his retirement on April 1870 (Fairfax, 2014).

¹⁸¹ TNA, PRO, ADM, 12-796 (28 May 1867).

¹⁸² TNA, PRO, ADM, 12-796 (5 June 1867).

the consistency of this arrangement with the neutrality and non-interference principles laid down by the British Government were later discussed at the House of Commons on 13 July 1867.¹⁸³ As a result of this, Lord Stanley informed the Royal Navy that Wiseman's departure to Istanbul should be deferred until further orders on 16 July 1867.¹⁸⁴ The British Admiralty's intention of Captain Wiseman's instatement was also recorded in the paper named *Daily Southern Cross* on 25 September 1867, with the following statements:

The Sultan was much satisfied with the administration of the Ottoman navy, and has expressed a wish to take back with him three English naval officers, in order to place such matters under their direction. Commodore Sir William Wiseman has already been selected and appointed as the head of the naval council at a salary of 3000 pounds sterling.¹⁸⁵

As is understood from another document, Captain Hobart's simultaneous entering to the Ottoman navy caused a suspension on the appointment of Sir William Wiseman until the end of the Cretan insurrection.¹⁸⁶ Explaining his understanding of the reaction of the Board of Admiralty, Hobart stated that he was nominated by the Ottoman Government as the civil member of the administration for the management and re-organization of the Naval Schools for a term of five years, and he had already drawn out several rules and regulations for the organization of Naval College. In addition, he stated that he did not act to seize this position, which was already placed for Sir

¹⁸³ TNA, PRO, FO, 96-264 (13 July 1867).

¹⁸⁴ TNA, PRO, ADM, 12-796 (16 July 1867).

¹⁸⁵ *Daily Southern Cross*, 23, 3179, 25 September 1867: 3. This idea is also confirmed by another paper, *Wellington Auckland Star* which announced the death of Admiral Sir Wiseman on 1 October 1872, telling the previous stations that he had been commissioned with the following statements: "He was in charge of the New Zealand station during the last Maori War; and afterwards with few other British officers took charge of the Turkish navy in the Bosphorus" (*Wellington Auckland Star*, 5, 1448, 1 October 1872: 2). As we could not find any archival document to prove Sir Wiseman's service in the Ottoman Government, it can be said that he was never commissioned in the service of the Ottoman navy because of the simultaneous instatement of Hobart Pasha.

¹⁸⁶ TNA, PRO, ADM, 12-813 (16 June 1868); Mr Hammond to the Secretary to the Admiralty, 20 February 1868, *Correspondence...*, p. 6.

Wiseman.¹⁸⁷ However, his efforts not to offend the British Admiralty would not be sufficient as his official resignation was approved by Lord Stanley on 18 March 1868,¹⁸⁸ and his name was removed from the list of the Royal Navy on 19 March 1868.¹⁸⁹

After the official declaration of his instatement, he was promoted to be a rear admiral after the efforts of Fuad Pasha.¹⁹⁰ Captain Hobart became Hobart Pasha on 25 February 1868¹⁹¹ and he was sent to Crete as the commander of the Turkish fleet. In contrast with the secondary literature, archival data shows that Hobart Pasha's departure from Istanbul was on 6 December 1868,¹⁹² which indicates he could not have directly started his first task as a commander of the blockading squadron of the Ottoman navy due to the negative reaction of the British Admiralty. In fact, he spent nearly one year in Istanbul, trying to convince the Admiralty to provide his reinstatement in the Royal Navy.¹⁹³ In his letter, dated November 1868, he explained his position in the Ottoman navy with the following statements:

I have important duties here, in which I think I may say the interests of my country are concerned, such as entire charge of the naval schools, which, had I not undertaken, would have fallen (as the military schools have done) into the hands of the French. I have also the entire organization of the Turkish navy in my hands, an am otherwise employed in important positions.¹⁹⁴

He also pointed out Captain McKillop's position in the Egyptian navy, which was similar to his employment in the Ottoman navy, but it would not be enough to

¹⁸⁷ Captain Hobart to the Secretary to the Admiralty, 28 February 1868, *Correspondence...*, p. 7.

¹⁸⁸ TNA, PRO, ADM, 12-813 (16 March 1868); Mr Hammond to the Secretary to the Admiralty, 18 March 1868, *Correspondence...*, p. 8.

¹⁸⁹ The Secretary to the Admiralty to the Hon. A. Hobart, 19 March 1868, *Correspondence...*, p. 8; Timaru Herald, 28, 1762, 23 June 1877: 4.

¹⁹⁰ Mr Elliot to Lord Stanley, 3 March 1868, *Correspondence...*, p. 7.

¹⁹¹ Soydemir, 2007: 73.

¹⁹² Mr Elliot to Lord Stanley, 6 December 1868, *Correspondence ...*, p. 10-11; TNA, PRO, ADM, 12-813 (19 December 1868); TNA, PRO, ADM, 12-813 (22 December 1868).

¹⁹³ The Hon. A. Hobart to the Secretary to the Admiralty, 26 May 1868, *Correspondence ...*, p. 9; The Secretary to the Admiralty to Mr Hammond, 12 June 1868, *Correspondence ...*, p. 9; Admiral Hobart Pasha to the Secretary to the Admiralty, November 1868, *Correspondence ...*, p. 10; Mr Elliot to Lord Stanley, 6 December 1868, *Correspondence ...*, p. 10-11.

¹⁹⁴ Admiral Hobart Pasha to the Secretary to the Admiralty, November 1868, *Correspondence ...*, p. 10.

repeal Lord Stanley's decision.¹⁹⁵ For this reason, his removal from the Royal Navy can be considered as the reason for the continuation of the Cretan Revolt until 1869, as the peace was restored shortly after his arrival in Crete.

Following his arrival, he determined that the island of Syra was the primary target as it was the main station of blockade runners for loading arms and provisions. With a fleet that consisted of two fast-despatch boats and a steaming corvette in addition to his flagship, a blockade runner—the Greek flagged *Enosis*—was seen by the Turkish squadron about eight miles away from Syra harbour, and its interception was ordered. Following Hobart's signal to the despatch boats to follow *Enosis*, a blank gun was fired in order to check her flags, but it replied by firing an Armstrong gun, directly targeting the flagship of Captain Hobart. In his memoirs he states that according to the rules of blockade, an armed blockade runner was regarded as a pirate when she used her arms against a warship,¹⁹⁶ which showed the insufficient knowledge of the Greek personnel on the international law, like their Turkish opponents. *Enosis* was chased by the Turkish boats until reaching the coasts of Syra, and one of the dispatch boats was sent to acquaint the governor of Crete, explaining that three blockade running ships were stopped by the Turkish squadron. This meant for several weeks they would not be able to move from their position, leading to the suppression of the Cretan Revolt as

¹⁹⁵ The Secretary to the Admiralty to Admiral Hobart Pasha, 24 November 1868, *Correspondence ...*, p. 10. Henry Frederick McKillop entered the Royal Navy on 5 October 1846 (TNA, PRO, ADM, 196-16-150, 5 October 1846) and was commissioned in the capture of Kerch and Yenikale in 1855 when the Crimean War was proceeding. After being promoted commander and later captain, he retired and arrived at Egypt on 22 June 1868 upon the offer made by the Khedivate for the post of director of the school in Alexandria (TNA, PRO, ADM, 12-813, 22 June 1868). He entered the service of Khedive Ismail in 1869, holding the offices of port captain of Alexandria and comptroller-general of Egyptian ports and lights (Meyer, 1992: 87). On 19 July 1869, he was conferred the 3rd class Order of Mecidiye after obtaining the approval of the British Admiralty (TNA, PRO, ADM, 12-831, 19 July 1869). In the years between 1875 and 1876, McKillop Pasha commanded the Egyptian naval squadron in the Red Sea. Before his death in Cairo in 1879, he was appointed a member of the Egyptian council of state and promoted rear admiral (Hill, 1967: 221).

¹⁹⁶ Hobart Pasha, 1887: 192-193; Laughton, 1886: 42. *Enosis*' position as an armed pirate was also confirmed by the British Admiralty on 16 December 1868 (TNA, PRO, ADM, 12-813, 16 December 1868).

insurgents would have no provisions of food.¹⁹⁷ In parallel with Hobart Pasha's thoughts, the Ottoman Government declared that supplies for the relief of the Cretans—who were to be carried back to their country from Greece—would be sent by the Porte¹⁹⁸ and the distribution of the supplies would be undertaken by the Ottoman officers without asking for any assistance from English or French naval officers,¹⁹⁹ as this task would also be directed by Hobart Pasha.²⁰⁰

Immediately after, the Turkish squadron anchored at the port of Syra and demanded assistance in arresting *Enosis*, which had committed an act of piracy. In addition to this, Hobart explained no ship should be allowed to sail from the harbour until the illegal action of *Enosis* was acknowledged. In reply, the administrators of Syra requested him to make a protest and to leave the island as the case of *Enosis* would be treated according to the international law, and they were unsure whether they would be able to control the population, serving as a subliminal threat to the Turkish occupying the island.²⁰¹

Being aware of *Enosis*' definite departure to Crete after he left Syra, Hobart declined their demands and sent a dispatch boat to Izmir to ask for assistance from Istanbul. He was determined to stay in the harbour and noted in his memoirs that he would not hesitate to sink the blockade-runners named *Enosis*, *Panhellenion*, and *Crete*²⁰² and anchored in the port in case they attempted to leave the island. The next day, he was warned again to leave the island, and was informed that a Greek frigate was on her way to capture him—dead or alive. However, Hobart steamed against her and

¹⁹⁷ Hobart Pasha, 1887: 193.

¹⁹⁸ TNA, PRO, ADM, 12-831 (3 March 1869).

¹⁹⁹ TNA, PRO, ADM, 12-831 (18 March 1869).

²⁰⁰ Hobart Pasha, 1887: 197.

²⁰¹ Hobart Pasha, 1887: 193-194.

²⁰² Mr Elliot to Lord Stanley, 6 December 1868, *Correspondence ...*, p. 10.

later discovered that she had no powder on board. Hobart's insistent attitude on remaining on the island until the definite application of the international law to *Enosis* and her companions resulted in stopping the blockade running. As the previous concerns of Turkish officers on the law were now shared by the Greek authorities, they would not dare to sail again to Crete. After the arrival of Ottoman ironclads, Hobart's later task was the distribution of insurgents in the Ottoman ship among the neighbouring islands, which also indicated the end of the Cretan Revolt that had lasted nearly three years.²⁰³ For his success in suppressing the insurrection, he was promoted to vice admiral on 28 January 1869²⁰⁴ and was later appointed as the Harbourmaster of Istanbul in addition to the presidency of the newly-established Naval Reforms Commission and his membership of the Board of Admiralty on 10 February 1869.²⁰⁵ Following his return to Istanbul on March 1869, he was awarded with the collar of the Legion d'Honneur and the plaque of the Order of St. Joseph by French and Austrian Governments for his contribution in preventing a war from breaking out in Europe.²⁰⁶

On 7 March 1869, he sent another letter to the British Admiralty to request his name to be added into the list of the Royal Navy.²⁰⁷ Upon being rejected again,²⁰⁸ his next letter shows his temper against the British Admiralty, as he stated that even though his instatement in the Ottoman navy without requesting permission was an indefensible mistake, his success in Crete brought general peace and it was universally recognized throughout Europe. Due to the inflammatory tone of some of the statements he made

²⁰³ Hobart Pasha, 1887: 195-197.

²⁰⁴ Soydemir, 2007: 76; Woods Pasha, 1924b: 152.

²⁰⁵ BOA, AYN.d, 986-242 (10 February 1869).

²⁰⁶ Hobart Pasha, 1887: 198; Woods Pasha, 1924b: 153; Laughton, 1886: 43; *Southland Times*, 2704, 6 March 1887, 4; *New Zealand Herald*, 14, 4808, 14 April 1877: 1.

²⁰⁷ TNA, PRO, ADM, 12-831 (7 March 1869); Admiral Hobart Pasha to the Secretary to the Admiralty, 7 March 1869, *Correspondence* ..., p. 11.

²⁰⁸ The Secretary to the Admiralty to Admiral Hobart Pasha, 28 April 1869, *Correspondence* ..., p. 12.

about the members of the Admiralty at the end of this letter,²⁰⁹ it was decided by the Royal Navy that no reply was to be returned to Hobart Pasha on 31 May 1869.²¹⁰ In contrast with the conflict between the two sides, the British Admiralty informed Ottoman Government that the Ottoman navy would be put in a good position by the guidance of Hobart Pasha on 17 May 1869.²¹¹

As already seen, Hobart Pasha was placed in one of the highest positions in the administrative system of the Ottoman navy after the Cretan Revolt and he was primarily in charge of the preparation of naval reforms, which were being implemented into foreign navies, particularly in the Royal Navy.²¹² For this reason, the foundation of the Naval Reforms Commission should be accredited to Hobart Pasha's instatement in the Ottoman navy, and the naval reforms made after 1869 were prepared and implemented under his direction. On 24 February 1870, he was assigned as the Minister of the training ships in addition to his presidency of the Naval Reforms Commission²¹³ and due to his efforts in the modernization of the Ottoman navy, he was rewarded with a second class Order of Mecidiye and later the Order of Osmaniye on 7 March 1871 and 23 November 1874 respectively.²¹⁴ In addition to this, his contract was extended to ten years on 24 March 1871. Following his application to the Royal Navy on 16 October 1874,²¹⁵ his reinstatement was approved by the Admiralty and his name was placed on

²⁰⁹ Admiral Hobart Pasha to the Secretary to the Admiralty, 7 May 1869, *Correspondence ...*, p. 12-13.

²¹⁰ TNA, PRO, ADM, 12-832 (7 May 1869); Mr Hammond to the Secretary to the Admiralty, 31 May 1869, *Correspondence ...*, p. 13.

²¹¹ TNA, PRO, ADM, 12-831(17 May 1869).

²¹² Hobart Pasha, 1887: 200.

²¹³ BOA, İ.DH, 607-42333 (24 February 1870).

²¹⁴ Soydemir, 207: 75-76; TNA, PRO, ADM, 12-941 (3 November 1874).

²¹⁵ Admiral Hobart Pasha to the Earl of Derby, 16 October 1874, *Correspondence ...*, p. 13. In the same letter, he describes his efforts for the modernization of the Ottoman navy with following statements: "... I have organized the Turkish navy in a way which has led to encomiums as to its state from all Commanders-in-chief of the English fleets who have lately visited Constantinople. I have established naval schools, training and gunnery ships, strengthening the navy of our ally."

the retired list on 2 December 1874.²¹⁶ Towards the end of the reign of Sultan Abdülaziz, he was appointed as the commander of the Ottoman squadron, which was commissioned in the Mediterranean and consisted of the ships called *Selimiye* (frigate); *Asar-ı Şevket*, *Necm-i Şevket*, *İclaliye* (ironclad) and *Resmo* (steamer).²¹⁷ After the dethronement of Sultan Abdülaziz, his service in the Ottoman navy was continued until his death on 18 June 1886.²¹⁸

Henry Felix Woods

Another British officer was Henry Felix Woods, known as Woods Pasha, who entered the service of the Ottoman Navy in 1869. After graduating from Greenwich Royal Naval College, he firstly attended the training ship *Rollo* and was later appointed to a flag ship, *Boscawen*, in the Cape Station in 1858. Upon reaching there, he was first sent to another ship *Archer*, and then the commodore Charles Wise's flag ship, *Vesuvius*, commissioned to chase slave traders.²¹⁹ Following his return to Britain from Foreign Service, he was appointed to *Rhadamanthus*, an old paddle-wheel transport steamer, carrying boilers and heavy pieces of machinery between dockyards.²²⁰ After seven months, he attended *Charybdis*, which was about to proceed from Sheerness to East India, then later the Chinese Seas, which he remained on board from November 1860 to August 1863.²²¹ In December 1861, the ship sailed from Hong Kong to Yokohama and he spent the following years in the stations located in the Far East until 1866, being

²¹⁶ The Secretary to the Admiralty to Captain Hobart, 2 December 1874, *Correspondence* ..., p. 16.

²¹⁷ Soydemir, 2007: 80.

²¹⁸ Woods Pasha, 1924b: 159.

²¹⁹ Woods, 1924a: 14-18.

²²⁰ Woods, 1924a: 59.

²²¹ Woods, 1924a: 61-79.

commissioned in *Tartar* on 1 September 1863,²²² *Kestrel* on 25 November 1863²²³ and *Cormorant* on 23 January 1866,²²⁴ witnessing the bombardment of Kagoshima. He mentions in his memoirs that after leaving Japanese waters for Britain, they met an Ottoman corvette called *Broussa* at Mauritius on 26 October 1866 that was travelling to the Persian Gulf to command the Turkish squadron and tells much about the Turkish captain's adjutant, who spoke perfect English, had spent some time in England, and made a short cruise with one of the British flagged ships. Woods also noted he would meet this person again as the adjutant of the Minister of Marine in Istanbul in one year.²²⁵

Towards the end of 1866, Woods returned to Britain as a second master and later was assigned to *Caradoc* as the second commander in 1867. This was the dispatch vessel in attendance upon the British ambassador in Istanbul,²²⁶ and he had a chance to conduct close contacts with his Turkish colleagues. Upon the recommendation of *Caradoc*'s Captain Wilkinson, he took charge of the international commission, which was constituted to improve the entrance of the Bosphorus by a lightship and beacons, which were to be mounted along the coasts in the vicinity of the Black Sea entrance to the Bosphorus to prevent shipwrecks.²²⁷ His useful suggestions upon the correct position of the lightship and the beacons, the establishment of life-saving stations, and the life boats on each side²²⁸ captured the attention of the Ministry of Marine. After being allowed by the Admiralty to remain on the books of *Caradoc*,²²⁹ his success in the

²²² Woods, 1924a: 87-89, 156.

²²³ Woods, 1924a: 163-164.

²²⁴ Woods, 1924a: 204.

²²⁵ Woods, 1924a: 242.

²²⁶ Woods, 1924a: 250; TNA, PRO, ADM, 12-813 (3 January 1868).

²²⁷ TNA, PRO, ADM, 12-796 (16 November 1867); TNA, PRO, ADM, 12-813 (18 March 1868).

²²⁸ Woods, 1924a: 271-272.

²²⁹ TNA, PRO, ADM, 12-796 (16 November 1867).

commission resulted in a promotion in his rank to lieutenant.²³⁰ Moreover, Woods was thought to be suitable for the lecturer position in the Naval Academy, as the Naval Board arranged the modules to be taught in accordance with the teaching methods and contents applied in the Royal Navy. Upon his acceptance, a contract was made on 22 October 1869, stating that he would give lectures both in the Academy and the training ship, teaching the modules of nautical sciences and was urged to work veraciously and heartily, following the instructions given by the principal of the school.²³¹ His term of office was determined as four years with a monthly salary of 50 pounds sterling and he also received extra 50 pounds sterling once as a ration allowance. As his instatement to the navy required him to have a military rank, he was promoted to lieutenant colonel and the uniform was to be provided by the Naval Board. In addition, it was stated that he would not be able to receive retirement and travel allowance at the end of his term of office.²³²

Following this, attempts made by the Ministry of Marine to receive permission for him to be commissioned for the service of the Ottoman navy resulted in the same year, and Woods' request to enter the Ottoman Navy was approved by the Board of Admiralty, stating that his recommendations upon the position, form, and colour of the beacons eased the tasks of the international commission; he would be offered an annual salary of 500 pounds sterling by the Ottoman Government on 9 November 1869.²³³ Sultan Abdülaziz's approval was received on 24 December 1869 and he started his service as a lecturer in the Naval Academy in Heybeliada. During his four years in Heybeliada, he gave lectures in a variety of subjects, and a small brig was allocated for

²³⁰ Woods, 1924a: 273.

²³¹ BOA, İ.HR, 241-14307 (22 October 1869).

²³² BOA, İ.HR, 241-14307 (22 October 1869).

²³³ TNA, PRO, ADM, 12-831 (9 November 1869).

the training of cadets under his command once or twice a week for a cruise around the Prince Islands. He described the students as successful, with an enthusiastic attitude towards learning, but mostly “*inclined too much to imagine.*”²³⁴

For him, his task was *irksome*, but for the students it was beneficial in making progress in seamanship.²³⁵ In a short time, he became friends with the minister of the school, Eğinli Mehmet Sait Pasha²³⁶ and together they played an important role in turning the school into an Academy until 1872, when Hacı Ali Paşa was appointed to the same position. Following Ali Pasha’s criticism on his training of the students on board in the brig on the grounds that his teaching was about *kaptanlık* (seamanship)—which Ali Pasha thought useless until the cadets were captains—Woods explained the importance of having a good grasp on nautical sciences and practical training for students before being appointed to the ships to know how to command on board and the main duties of a captain. This disagreement helped him to protect his independency as a lecturer, and prevented administrative staff from interfering in his teaching methods.²³⁷

In spite of these good observations noted in his memoirs on the education of the students, remarks made by Captain James Graham Goodenough²³⁸ on Woods’ report to the British Admiralty on 14 June 1872 shows the main problem of the Ottoman navy was the training of the personnel, with the following statements:

²³⁴ Woods, 1924b: 12.

²³⁵ Woods, 1924b: 12.

²³⁶ After graduating from the Military Engineering School, Sait Pasha also known as British Sait Pasha, was sent to the University of Edinburgh in 1854. During his five year visit, he carried out his studies in Woolwich Armouries, Enfield Armoury Factory, Waltham Gunpowder Mills and the Royal Observatory in Greenwich. Following his return, he was assigned to the Naval Board in 1867 and the Naval Academy as the minister in 1868 (for further information see Gencer, 2001: 287 and Gülen, 2001: 187-188).

²³⁷ Woods, 1924b: 16.

²³⁸ He entered the Royal Navy in May 1844. After being commissioned in different squadrons, he served as naval attaché to several embassies in Europe including Istanbul between 1871 and 1872 (Laughton, 2004b).

Woods considers that the great weakness lies in the officers and men whose professional training and knowledge is very far below that of the officers and men of any other services.²³⁹

In 1874, he was appointed first to the *Hüdavendigar* and later *Muhbir-i Sürur* training ships with the title of navigation instructor until 1875.²⁴⁰ Following Sultan Abdülhamid II's accession to the throne, he continued his service in the Academy, mainly focusing on torpedo education, and was promoted as colonel for his services in the Ottoman-Russian War of 1877-1878. He was also placed on the Naval Board after his promotion under Hobart Pasha.²⁴¹ He organized a torpedo school on board the *Hüdavendigar* and continued to instruct torpedo application until the end of the 1880s. Being conferred with the rank of vice admiral on 9 October 1886,²⁴² after the dethronement of Sultan Abdülhamid, his services as a naval instructor were determined as no longer required and he was retired from the Ottoman navy in 1911.²⁴³

The Foundation of the Naval Reforms Commission under the Presidency of Hobart Pasha and the New Naval Code of 1870

The first step taken by Hobart Pasha as the member of the Board of Admiralty was the establishment of the Naval Reforms Commission on 28 April 1869. According to its regulation, the main purpose of its foundation was to determine the naval reforms that were necessary for the modernization of the navy and the Imperial Naval Arsenal. For this reason, the required rules and regulations—including the intended reforms of

²³⁹ TNA, PRO, ADM, 12-895 (14 June 1872).

²⁴⁰ Woods, 1924b: 20-30. His observations during cruising are analysed in the section titled practical training in Chapter 5.

²⁴¹ Woods, 1924b: 49.

²⁴² Woods, 1924b: 213; Soydemir, 2007: 112.

²⁴³ Woods, 1924b: 188.

manufacturing, shipbuilding, military and administration units of the Arsenal, and the activities designed to bring the navy up to the desired level—would be prepared by this new commission, which consisted of a chairman and six members under Hobart’s supervision. Decisions taken at the end of each meeting were to be signed by all of the members and after their collection into a book, the proposed regulations and minutes would be sent to the Ministry of Marine at frequent intervals.²⁴⁴ Under his direction, the innovation made on the naval administration was the new naval code implemented in 1870.

Because of the radical change in the naval administration system after the foundation of the Ministry of Marine in 1867, and the appointment of Hobart Pasha as the director of the naval modernization, the preparation of a new naval code according to the new needs of the navy can be regarded as a possible implemented solution. However, data obtained from secondary literature suggests that the naval code of 1849 remained in force until 1880, which means it was also implemented in the reign of Sultan Abdülaziz.²⁴⁵ We can confirm this claim to be accurate to at least 1870, as an archival document dated 6 June 1870 shows that a new naval code was included in the naval administration system from this date forward. In addition, it was written as introduction that “*the new naval code was prepared through the translation from the naval code of Britain.*”²⁴⁶ A proper regularity could not be achieved due to the absence of a sufficient naval code regarding the rules and regulations for the naval personnel, according to the remarks of the Naval Reforms Commission in the same document. For this reason, it was emphasised that the preparation of a new code was in operation by translating the selected part of the code of the British Admiralty, which was regarded to

²⁴⁴ DMA, TRS, 392-20B (28 April 1869).

²⁴⁵ *Bahriye Nizamnamesi (1849)*, 1996: 14; Gencer, 2001: 237.

²⁴⁶ BOA, İ.DH, 615-042843-1-3 (6 June 1870).

have better application than other countries.²⁴⁷ In accordance with this purpose, the first section of the naval code of the British Admiralty was translated under the supervision of the Naval Reforms Commission and after making the required changes, it was presented to the Ministry of Marine. At the end of the document, it was also highlighted that the other parts of the code of the British Admiralty, which were selected as suitable for the adaptation to the Ottoman navy, would be translated respectively.²⁴⁸ Accordingly the first section of the naval code of Britain was adapted into the system carried out in the Ottoman navy by considering its applicability on 18 June 1870²⁴⁹ and it was submitted to the Office of Grand Vizier for approval on 21 June 1870.²⁵⁰

The first part of the new naval code attached to the document, dated 6 June 1870, was a regulation regarding the rules for the naval personnel in official ceremonies, consisting of 15 sections. Examining the naval code of Britain constituted in 1861, we can confirm that this was the naval code that the Ottoman Ministry of Marine took as a model in preparation for the new code of practice for the Ottoman navy in 1870. Thus the content of the third section of the code of the British Admiralty of 1861 was written on the same issue which consisted of 16 sections.²⁵¹

When all the articles included in these two naval codes are compared, it can be seen that the Naval Reforms Commission made alterations considered to be required on some private titles and terms used only for the British Admiralty during the course of translation. This comparison can be followed more clearly from the table below:²⁵²

²⁴⁷ BOA, İ.DH, 615-042843-1-13 (8 June 1870).

²⁴⁸ BOA, İ.DH, 615-042843-3-1 (19 July 1870).

²⁴⁹ DMA, MKT, 94-69 (18 June 1870).

²⁵⁰ DMA, MKT, 94-94 (21 June 1870).

²⁵¹ *The Queen's Regulations and the Admiralty Instructions for the Government of Her Majesty's Naval Service*, 1862: 4.

²⁵² *The Queen's Regulations and the Admiralty Instructions for the Government of Her Majesty's Naval Service*, 1862: 4-26; BOA, İ.DH, 615-042843-1-3-13 (6 June 1870).

Table 3. Comparison between the First Sections of the Queen’s Regulations of 1861 and the Ottoman Naval Code of 1870

Third Section of the Queen’s Regulations of 1861		First Section of the Ottoman Naval Code of 1870	
<i>Summary of Each Part</i>	<i>Number of Articles</i>	<i>Summary of Each Part</i>	<i>Number of Articles</i>
Royal Salutes and Flags	11	Royal Salutes and Flags	21
Diplomatic Salutes	4	Salutes to Ambassadors and Consuls	4
Salutes to Military Authorities	2	Salutes to the Grand Vizier, Governors of Privileged Provinces, Seraskier Pasha and the Ministry of Marine	1
Salutes to Officers	13	Salutes to the all officers of the Navy	9
Salutes to Governors &c	5	Salutes to Governors and Civil Service Officers	4
Salutes in India	7	Salutes to the officers in Privileged Provinces	2
Salutes to Foreigners not of Royal Families	5	Salutes to Foreign officers not of Royal Families	5
Salutes in General	6	Salutes in General	5
Distinguishing Flags	8	Distinguishing Flags	4
Distinguishing Pendants	3	About <i>Gidons</i> ²⁵³	2
Colours – Navy	2	Flags – Navy	2
Colours – Not Navy	4	Flags – Commercial Fleet	4
Military Honours	10	Naval Honours	10
“The Victoria Cross”	1	---	---
Foreign Orders and Medals	12	Foreign Orders and Medals	10
Uniform	8	Uniform	6

As seen from the table, while the 6th part in the third section of the code of the British Admiralty pertained to the official ceremony regulation followed by the Royal Navy for India, this was adapted to the Ottoman new naval code as the regulations for privileged provinces. The only part that was not included in the naval code of the Ottoman navy was the part titled “The Victoria Cross”. The rest of the articles in both codes were the same, apart from the changes made by the Ottoman officers in terms and titles, and, depending on the specific applications of both navies, removal of some

²⁵³ It was a kind of flag pertained to the second class commodores (Nutki, 2011: 108).

implementations and additional articles can be observed in the translated naval code of the Ottoman navy.

Another example of this application was the new regulation for naval *feriks*, prepared by the Naval Reforms Commission on 23 June 1870.²⁵⁴ In general terms, this regulation included detailed information regarding the procedure, which would be carried out when necessary, on maintenance and repairing of the warships and transport vessels. The following statements in the same regulation confirm that this regulation was also received from the naval code of British Admiralty issued in 1861:

For some time now, the current situation of the warships has been changed and modernized. Although the navy was put in a perfect order, inspection of the general service of warships, the number of officers and marines commissioned in ships and their training on a regular basis has become compulsory. As this controlling is being carried out in the Royal Navy according to the regulation written in the 44th section of the naval code of the British Admiralty which is now being translated for the Ottoman navy, officers who were commissioned with the title of *ferik* will be responsible with the task of inspection.²⁵⁵

In addition to this explanation, two inspection forms, prepared separately for the warships and transport vessels, were attached to the same document. As a result of our research, we determined that these forms were included in the 41st section of the naval code of the British Admiralty titled *Instructions for Commanders-In-Chief*.²⁵⁶ This not only confirms the continuation of the translation process on the selected part of the code of the British Admiralty, but also shows the regulations implemented for the ship commanders, called *sivaris* after 1870, were adapted from Britain.

²⁵⁴ BOA, İ.DH, 615-42853-3 (23 June 1870).

²⁵⁵ BOA, İ.DH, 615-42853 (23 June 1870).

²⁵⁶ *The Queen's Regulations and the Admiralty Instructions for the Government of Her Majesty's Naval Service*, 1862: 303, 306.

When both inspection forms are compared, it can be said that the form of Ottoman navy was a direct translation from the one used by the British Admiralty.²⁵⁷ As is understood from the form which consisted of 64 items, it was prepared in three main sections as the inspection of ship crew, readiness for action and technical equipment. The first section assigned to control the coherency of the ship crew with the rules of regulation on board. Accordingly it started with questions regarding the name of the ship, location of the station where the ship was commissioned, and the state of the logbooks and the other records of the ship, whether they were kept in an orderly manner, and continued with similar items such as the training of officers and marines, the sufficiency of provisions, and the convenience of living conditions. Questions located in the second section were in regard to the adequacy of naval ammunition; the state of cannons and other guns and the training of ship crew in terms of their competence in the usage of armaments, all paramount factors affecting the readiness of the ship for a sudden action. The last part was allocated to check the state of engines and boilers, and the questions were to control the capacity of the naval engineers commissioned in the ships for the maintenance and repairing of this equipment. Further to this, the Naval Reforms Commission removed six articles²⁵⁸ during the course of

²⁵⁷ For the full text of the original forms see *The Queen's Regulations and the Admiralty Instructions for the Government of Her Majesty's Naval Service*, 1862: 411, appx. 12; BOA, İ.DH, 615-42853-1-2 (23 June 1870). For the form of Inspection implemented first by the Royal Navy and translated from English to Ottoman Turkish by the Naval Reforms Commission for the Ottoman Navy see appx.

²⁵⁸ The articles, which were in the inspection form of the British Admiralty but not included in the form of the Ottoman Navy, were as follows: *Last Inspection-By whom made and at what place?* (Article 3); *Paymaster's accounts &c.-Special inquiry to be made with regard to them, whether they have been completed and transmitted at the proper periods; and if not the same is to be reported by letter to the Secretary to the Admiralty* (Article 8); *Are proper precautions taken to avoid making Inspections unnecessarily irksome?* (Article 22); *How often are the men furnished with check notes of the charges against them on the books?* (Article 26); *Messes-Have all debts been paid?* (Article 35); *Messes-If the ward-room, gun-room, and Engineer Officer's messes have been conducted in a satisfactory manner, and with proper economy?* (Article 36).

translation and the articles numbered 5, 9, 11, 14 and 35 were partially altered in accordance with the system carried out for the Ottoman navy.

In another document, dated 6 November 1871, it was stated that the translation of the regulations pertaining to the transportation of soldiers commissioned in the land army and quarantine procedure was completed and submitted to the Ministry of Marine for the confirmation.²⁵⁹ These regulations were included in the naval code of the British Admiralty in the sections numbered 15 and 23.²⁶⁰

As seen, the regulations, subject to amendment by the Naval Reforms Commission according to the system carried out by the Royal Navy, were related to the warships and the naval personnel who were responsible in their operation. The need arose for making new arrangements on warships and the personnel was the foundation of the Board of Admiralty in 1867, as explained in a document dated 28 December 1870.²⁶¹ As mentioned in the previous section, the tasks and liabilities of the military side of the Ottoman navy were given to the Board of Admiralty under the supervision of the Ministry of Marine after the abolishment of the office of Kapudan Pasha in 1867. Depending on the acceleration observed in the number of ships and the naval personnel, the board's area of responsibility was notably extended towards the end of 1860s.

According to the aforementioned document, the Board of Admiralty was in charge of two main tasks; the implementation of procedures regarding the warships ordered from Britain and technical equipment used for the shipbuilding operations, and the direction of the manufacturing and construction activities carried out in the Imperial Naval Arsenal, together with the Board of Economy. To increase the functionality of the

²⁵⁹ DMA, MKT, 140-112 (6 November 1871).

²⁶⁰ *The Queen's Regulations and the Admiralty Instructions for the Government of Her Majesty's Naval Service*, 1862: 134-136, 189-192.

²⁶¹ BOA, İ.DH, 627-43646 (28 December 1870).

members of the Board of Admiralty, the Naval Reforms Commission intended to restrict the workload of the board and to narrow its principal area of authority by translating the relevant parts of the naval code of British Admiralty. Accordingly, sections numbered 2, 3, and 4—regarding the ship commanders and commodores—were translated and submitted to the Ministry of Marine. According to this, the ship commanders would not be directly connected with each other and act independently in the ship in which they were commissioned. These sections were the sections numbered 4, 5, and 6 in the naval code of British Admiralty issued in 1861.²⁶²

Any evidence that proves the continuation of the translating process after 1871 could not be found. This situation gives an impression that these activities were eventually completed at an indeterminable point.

As already seen the process of taking the regulations of the British Admiralty as the model for the future modernization of the Ottoman navy was started in order to provide a more systematic framework for the workload of the Board of Admiralty. The sections to be translated from the Admiralty Instructions of the Royal Navy were determined and submitted to the Ministry of Marine by the Naval Reforms Commission. Considering the establishment date of the commission and the starting date of the translation process, which were 1869 and 1870 respectively, it can be said that the need for a new naval regulation appeared after the foundation of the Naval Reforms Commission, and was carried out upon the commission's recommendation. In other words, the foundation of the Board of Admiralty and the Naval Reforms Commission played an active role in the adaptation of the British naval system into the Ottoman

²⁶² *The Queen's Regulations and the Admiralty Instructions for the Government of Her Majesty's Naval Service*, 1862: 27-51. The difference in the number of sections resulted from the inclusion or removal of some sections in different editions of the Admiralty Instructions as the similarity of their contents can be observed when making a comparison between the articles.

naval administration. According to the archival data, the sections numbered 3, 4, 5, 6, 15, 23, and 41 of the naval code of the British Admiralty were translated and partially amended by the Naval Reforms Commission between 1870 and 1871 and following the approval of the Ministry of Marine, they were implemented in the same years. In the process of translation, the topics were limited to warships and the naval personnel, and the required amendments were applied by considering the specific characteristics of the Ottoman navy.

Conclusion

After the foundation of the Ministry of Marine, we see that the system carried out between 1861 and 1867 was abandoned and the tasks and liabilities of the Navy, Order and Provision Unit were given to the Naval Board. The office of Kapudan Pasha was replaced with the Board of Admiralty for determining naval reforms, carrying out the recruitment process, and specifying the required materials for warships and naval personnel. The Board of Economy was established in place of the Provision Unit to assist the Naval Board in purchasing technical equipment and provisions in 1868. However, another division of the workload of the Naval Board is observed in 1873 and the auxiliary units were determined again as Navy, Order, Provision, and Manufacturing, which confirms the re-institution of the administration system of 1863, after ten years.

The inadequacy of the Ottoman Government in the suppression of the Cretan Revolt of 1866 proved that the idea of the protection of the Ottoman Christians, which had been dispossessed from Russia with the Treaty of Paris after the Crimean War,

could not be undertaken any longer by western powers, as long as the planned military and naval reforms were implemented by the Ottoman Empire. As it was confirmed many times that the Empire's fate was dependent on Britain, Sultan Abdülaziz was aware of the urgent transmission of the army and the navy to the desired capacity, which would make the Empire able to protect their lands and waters without being in a need of receiving aid from other countries. For this reason, the Cretan Revolt should be regarded as the main reason for the fundamental change implemented in the naval administration: the abolishment of the office of Kapudan Pasha and the establishment of the Ministry of Marine in 1867. The failure of the Ottoman navy during the operations against the blockade-runners displayed the incompetence of the officers concerning the operation of warships according to international law, and revealed the insufficiency of the naval reform programme carried out between 1861 and 1867. In fact, the revolt could only be suppressed after the entering of Hobart Pasha to the service of the Ottoman Government in 1867, and his success led the naval administration system carried out by the British Admiralty, to be more effective in the naval modernization of the Ottoman Navy, especially after 1869. Thus after Hobart Pasha's appointment as the member of the Board of Admiralty and the president of the Naval Reforms Commission, we found that the regulations related to the Board of Admiralty's area of authority were amended and relevant articles from the British Admiralty's naval code of 1861 were taken as a model, which started a translation process between 1870 and 1871.

CHAPTER 4. NAVAL PERSONNEL: THE RECRUITMENT OF MARINES AND DIVISION OF WORKFORCE

Introduction

The comprehensive modernization programme that deeply affected the administrative, educational, and technological units that made up the Ottoman naval forces also forced the naval personnel to adapt to these innovations. As revealed from the archival documents, which propound this evolution most accurately, the workforce of the Ottoman navy was divided into four distinct categories, which were integrated into a hierarchic structuring based on rank in this period. Among them, the first and most numerous group was composed of sailors who were divided into two main divisions as officers and marines, and the rest consisted of the naval industry corps, the manpower commissioned under the supervision of high ranking and petty officers in the Imperial Naval Arsenal and other imperial dockyards. The civilian officers included doctors, surgeons, imams, scribes, clerks, and pharmacists who were employed as an auxiliary unit in accordance with the requirements of the naval personnel.

The successful finalisation of the naval reforms implemented during this period was mostly dependent on the adequacy of these units in terms of knowledge and skill in their assigned positions, and their coordination with each other. However, the continuous need for the foreign technical experts and labourers to direct the operation of warships, shipbuilding, and manufacturing activities carried out in the Imperial Naval Arsenal proved the insufficiency of natives and the inadequate nature of their training led the personnel being unable to keep up with the increasing pace of the modernization. Particularly in the reign of Sultan Abdülaziz, large sums were invested in armoured ships, technical equipment, and a qualified workforce. In majority, these were bought

from Britain, and this placed a huge burden on the naval treasury, confirming that dependency on the West was the biggest obstacle to overcome in the development of the existing system. To end this dependency, the Empire needed to have a sustainable naval manpower, which acknowledged that the inadequate and outdated nature of the training provided for the officers was the most important problem. For this reason, an innovative policy was followed to develop the naval personnel in terms of technology, and new reforms were put into practice in the training and recruitment of marines.

Respectively, this present chapter will focus firstly on the marines, who were recruited in accordance with the conscription law, their origins, numbers, and recruitment process. In the second section, the developments of technical education and the naval industry corps, established as a way of solving the decreasing the number of foreign personnel employed in the manufacturing and construction stations in the Imperial Naval Arsenal will be evaluated by scrutinizing their structuring and working conditions.

Naval Organization and Military Service after the Declaration of Tanzimat

Military personnel formed the most numerous group of the Ottoman navy and consisted of two divisions, *seferi* and *hazeri*, which presented the staff commissioned in the warships and the personnel employed in the Imperial Naval Arsenal respectively. Recruitment of marines for these divisions could not be carried out efficiently due to the state's political conjuncture before the Tanzimat reform era. The Greek revolt that broke out in 1821 led to the removal of the Greek sailors, who had entered the service especially for the operation of warships and in several branches of the Imperial Naval

Arsenal, including craftsmanship such as carpentry, caulking, and screw making.²⁶³ This situation revealed the insufficiency of the number and the quality of technical staff as the biggest obstacle to the effective reorganization of the navy after the abolishment of the Janissary corps in 1826, and the destruction of the Ottoman fleet in the Battle of Navarino in 1827. In the presence of the persisting Greek rebellion and the increasing Russian threat, the government had to employ Genoese, Maltese, and Ragusan sailors in Pera and Galata without considering their religion, and also ordered the Egyptian and Algerian squadrons to combine with the Ottoman Navy in the Aegean Sea.²⁶⁴ In addition to this, recruitment of marines from the coastal districts, on behalf of the newly established regular army, *Asakir-i Mansure-i Muhammediye*, was brought to the agenda. Later however, sailors from the Christian community living in the *Cezayir-i Bahr-i Sefid* province, and also Muslims on the Albanian shores and the Black Sea coasts, had to be hired as difficulties were being experienced in strengthening the fleet with soldiers who had been trained for the service of the land army.²⁶⁵ Thus the military organization of the Ottoman navy was formed in three main classes; *efrad-ı harbiye*, meaning marines recruited from the coastal districts in accordance with the regulation of the land army; mercenaries called as *mariners* and *zabitans* referred to officers who were in charge of the administration of the Ottoman fleet and the arsenals, and also the operation of warships.

With the declaration of the Tanzimat in 1839, alterations made to the length of the military service and recruitment process provided the organization with general provisions in terms of structuring and functioning, and several measures were taken to stabilize the number of personnel as well. Thus the navy was experiencing difficulties in

²⁶³ Walsh, 1836: 198.

²⁶⁴ Walsh, 1836: 380-381.

²⁶⁵ Mahmud Şevket Pasha, 1325: 33.

filling the quota allocated for the recruitment of marines. In fact, an imperial decree was issued just before the declaration of the Edict of Gülhane, stating that 1500 men would be recruited among 18-25 year-old Greek youngsters, who had experience in seamanship, as regular marines for a period of five years in the warships. If the desired number could not be achieved, it would be reinforced by the addition of Armenians and Catholics. Despite the negative reaction of the Christians, 1491 men among Christian Ottoman citizens served in the navy in 1837.²⁶⁶ Following the declaration of Tanzimat, within the scope of the principal of equality, military service was made to cover all the Ottoman citizens, including Christians. Another fundamental change was the reduction in the length of military service, which had been determined for a lifetime, to between four and five years, which was an important step taken related to the removal of the public's negative approach to soldiering—a change first adopted by the decision of the *Şura-yı Askeri* (the Military Council) established in 1837. The reason for these arrangements was explained in the Edict with the following statements:

It is the obligation of the subjects to procure soldiers for the defence of the homeland. However the size of the population in the recruitment zones has not been considered until now and for this reason some was claimed to provide more while others less. This has led all kinds of disorder to be revealed and damaged agriculture and trade. On the other hand, life-long military service resulted recruits to be fallen into despair and also prevented them to have families (which pointed out the declining number of the population). Therefore it is necessary to recruit those soldiers when necessary with a better regulation and to establish a system of recruitment with a term of service of four to five years.²⁶⁷

This created suitable grounds for the development of military reforms, and new army regulation was introduced on 8 September 1843. However, it was not put into practice immediately, so as to allow refinement the details of new recruitment procedure. In 1846, the new regulation of conscription called *Kur'a Nizamnamesi* was

²⁶⁶ Gülsoy, 2000: 30-33.

²⁶⁷ Kaynar, 1991: 178.

adopted after the approval of *Meclis-i Vâlâ* and Sultan Abdülmecid. The most remarkable advancement of this 63-item regulation was the establishment of the new regular army called *Nizamiye* and the reserve army named *Redif*. Accordingly, conscripts for the *Nizamiye* army were referred to as *muvazzafs* and they would be selected among 20 to 25 year old subjects with a recruitment period of five years. Following the completion of active service, they would be transferred to the reserve army for seven years. Recruitment would be carried out through *kur'a* (drawing of lots) among male subjects whose age and health rendered them eligible. In addition to this, those who drew a low number in the *kur'a* would be also included in the reserve forces, which required one month's training per year for all reservists. Ottoman territories were divided into five major military zones as *Hassa*, *Dersaadet*, Rumelia, Anatolia, and Arab provinces and reserve troops were specified according to each army zone which they were attached to.²⁶⁸ In addition to this, the number of men to be conscripted from sanjaks would be calculated by considering the number of *redif* soldiers and distributed in a proportional manner according to the population of each district. During the course of *kur'a*, carried out in April every year, a draw officer, doctor, and scribe were determined as the officials sent by the army and a draw council would be constituted in each district centre.²⁶⁹

The system established with the Conscription Law of 1846 remained until the proclamation of the new army regulation in August 1869, and included also the marines recruited for the Ottoman navy. However, the length of naval service was stipulated to be a total of 15 years, including ten years in active service and five years in the reserve forces. In 1851, it was considered to be too long, and the length of the active service

²⁶⁸ Zürcher, 1999: 82; Aksan, 2007: 410; Özcan, 2007: 525; Gülsoy, 2000: 39-40.

²⁶⁹ Şimşek, 2014: 268, 275.

was decreased to 8 years. Furthermore, it was decided that 3000 of the total number of recruits who entered Ottoman military service each year would be sent to the Ottoman Navy from the same year.²⁷⁰

The application of the conscription law of the land army to the Ottoman navy led the ranks of the naval officers to be changed in accordance with the ranks used by the army. As is known, after the Kapudan Pasha, the general commander of the Ottoman fleet, three other admiralty ranks, called *kapudane*, *patrona* and *riyale*, were given to the top officers of the navy, and these were replaced with *reis* (admiral general), *ferik* (vice admiral) and *mirliva* (rear admiral) respectively in 1854. In addition to this, the ranks of the officers commissioned in warships were also altered and captains in three-deckers, brigs, frigates, and corvettes were given the ranks of *üç anbarlı süvarisi* (three-decker captain), *miralay* (commodore), *kaimmakam* (commander) and *binbaşı* (lieutenant commander) respectively. For smaller vessels, lieutenants were assigned with the rank of *buyuruldulu kaptan* and this was later divided into two independent degrees as *sağ* and *sol kolağalığı*.²⁷¹

Recruitment of Naval Personnel in the Reign of Sultan Abdülaziz

Application of the regulations prepared for the land army remained inadequate in meeting the need of qualified personnel to be commissioned in warships, which were technologically and numerically improved by the comprehensive modernization carried out in the reign of Sultan Abdülaziz. For this reason, a policy to concentrate on the

²⁷⁰ Mahmud Şevket Paşa, 1325: 34. A letter, which written by Edward Joy Morris, the USA Minister Resident to Istanbul, shows that the allocated quota for the Navy was still 3000 in 1864 (Mr Morris to Mr Seward, 15 January 1864, *United States Department of State Papers Relating to Foreign Affairs, Accompanying the Annual Message of the President to the Second Session Thirty-Eight Congress*, 1864: 376).

²⁷¹ Mahmud Şevket Paşa, 1325: 34-35.

coastal recruitment zones became apparent from the beginning of this period, and it was intended that recruits from these areas should be allocated exclusively for the needs of the Ottoman navy. In fact, in January 1864, main differences between the army and the navy were explained in detail in the official army and navy gazette, *Ceride-i Askeriye*. Emphasising the importance of having special knowledge and skills for entering the naval service, it was highlighted in this article that subjects recruited for the naval forces had to be familiar with seafaring so as not to experience difficulties when they were sent on seagoing operations. It was also recommended that the state should take advantage of having long seashores and coastal districts, of which should be regarded as the main resource of the Ottoman navy to fill the allocated quota for recruitment. As the Empire was surrounded by three seas and the deployment of army forces as mainly carried out by sea, the priority should be attached to the protection of coastal zones, which required an increase in the number of marines.²⁷²

In accordance with this policy, the coastal provinces were allocated as the conscription zones of the Ottoman navy for the year of 1864. Thus a document sent to the office of Kapudan Pasha on 12 March 1864 shows that due to the alteration of marines—who completed their active service and were relegated to *redif* battalions—conscription would be performed in the specified provinces, and the Kapudan Pasha was to be acquainted with the general population, the number of men eligible to be recruited (*esnan-ı askeriye*) [military recruitment age], and the quota allocated for the navy in each district. In addition to this, the total number of naval personnel commissioned in the warships, naval industry corps and the Imperial Factory for Twisting and Manufacturing of Rope and Cord (*Riştahane-i Amire*) was stated as 15749

²⁷² *Ceride-i Askeriye*, 'Mevadd-ı Bahriye', 3, 31 January 1864.

in the same year. It was also added that this number would be decreased to 14302 after the transfer of 1447 recruits to the reserve forces. As the needed number of personnel was 17500, 3198 is indicated as the quota of 1864 in the same document.²⁷³ The table below illustrates the name of the districts and the required number of men to be recruited for the Ottoman navy.²⁷⁴

Table 4. Districts and Number of Men Allocated for the Ottoman Navy in 1864

Sanjaks and Districts	Population	Number of Men to be Recruited	Number of Men Allocated for the Navy
Kaza-i Nefs-i Trabzon	6081	782	49
Maçka	6459	640	40
Vakfisagır	1644	186	11
Akçaili	13898	1706	106
Vakfikebir	12562	1681	105
Tonya	3456	506	31
Görece	9313	1432	89
Tirebolu	13542	1405	88
Yomra	4856	530	33
Sürmene	15595	1718	107
Of	23224	3147	196
Rize	27585	4048	253
Hemşin	6419	919	57
Kura-yı Seb'a	5884	810	50
Liva-i Giresun Kaza-i Giresun	6008	934	58
Piraziz	1759	254	15
Akköy	2401	266	16
Keşap	6318	912	57
Pazarsuyu	2638	353	22
Liva-i Bucak Kaza-i Arh	5654	772	48
Ebülhayr	1770	304	19
Ulubey	3032	352	22
Habsamana	3872	423	26
Çamaş	1514	188	11
Bolaman	2213	258	16
Aybastı	3540	416	26
Perşembe (Pençşenbe)	5507	713	44
Liva-i Canik Kaza-i Kavak	5374	583	36
Çöregi	1147	125	7
Fenaris	1169	175	11
Keşderesi	2454	288	18
Serkeş	3168	433	27

²⁷³ BOA, İ.DH, 524-36120-002 (12 March 1864).

²⁷⁴ BOA, İ.DH, 524-36120-003 (12 March 1864). The place names were checked individually for each district by comparing them from the original document and Sezen, 2006.

Meydan	1546	190	12
Fatsa	2872	365	22
Efraz	1969	264	16
Ökse	3113	352	22
Samsun	4731	422	26
Bafra	8825	865	54
Alaçam	4384	494	31
Ünye	3749	481	30
Terme	3116	292	18
Akçay	3542	510	32
Çarşamba (Çıharşanba)	6418	743	46
Madenkapı	1184	136	8
Ayvacak	5772	734	46
Cevizderesi	1490	190	11
Liva-i Gümüşhane	3739	503	31
Kelkit	7927	1036	64
Kavkas	2767	362	22
Yağmurdere	1026	144	9
Torul	6977	938	58
Kürtün-i Bala	3448	338	21
Kürtün-i Zir	2216	236	14
Liva-i Kastamonu Kaza-i Hoşalay	8827	1109	69
Cide	7387	865	54
İnebolu	3989	472	29
Liva-i Viranşehir Kaza-i Bartın	7660	1001	62
Amasra	8335	999	62
Tefen	691	105	6
Gölpazarı	2111	280	17
Liva-i Sinop Kaza-i Sinop	1515	147	9
Keynolu nam Diğer Abana	7500	825	51
Ayandon	3699	407	25
İstefan	3772	497	31
Gerze	2989	389	24
Saray	5627	729	45
Gireğöz	1113	143	9
Karasu	2831	323	20
Çarşamba (Çıharşanba)	910	113	7
Yaykıl	1869	236	14
Liva-i Bolu	5065	626	39
Hisarönü	2021	244	15
Akçaşehir	1995	217	13
Üskübü	2689	375	23
Ereğli	9711	1148	71
Liva-i Kocaili Kaza-i Şile	3736	422	26
Kandıra	3464	382	23
Karasu	1388	172	10
Liva-i Gelibolu Kaza-i Gelibolu	3068	399	24
Malkara	1837	245	15
Keşan	1041	136	8
Evreşe	630	90	5
Meğri	756	111	7

İnöz	295	44	2
Firecik	3554	482	30
İpsala	1013	115	7
Şarköy	1562	211	13
Liva-i Tekfurdağı Kaza-i Tekfurdağı	3541	428	26
İnecik	833	101	6
Liva-i Erdek Kaza-i Erdek	293	81	5
Paşalimanı	490	37	2
Bandırma	1018	122	7
Kapudağı	134	9	0
Kemer	198	10	0
Cezire-i Marmara	125	13	0
TOTAL	411549	51714	3198

As can be seen, the provinces, mostly inhabited by Muslims, were selected as the conscription zones due to the unreliability placed on the Greek subjects after 1821. This also explains the reason for the elimination of Anatolian coasts of the Aegean Sea, and also the *Cezayir-i Bahr-i Sefid* province from the recruitment process. According to the same document, the number of naval recruits in each district was determined by calculating one-sixteenth of the total number of men eligible to be recruited and the rest was left for the need of the land army. The diagram below shows the percentages of recruits allocated for the Ottoman navy in 1864 according to each sanjak:

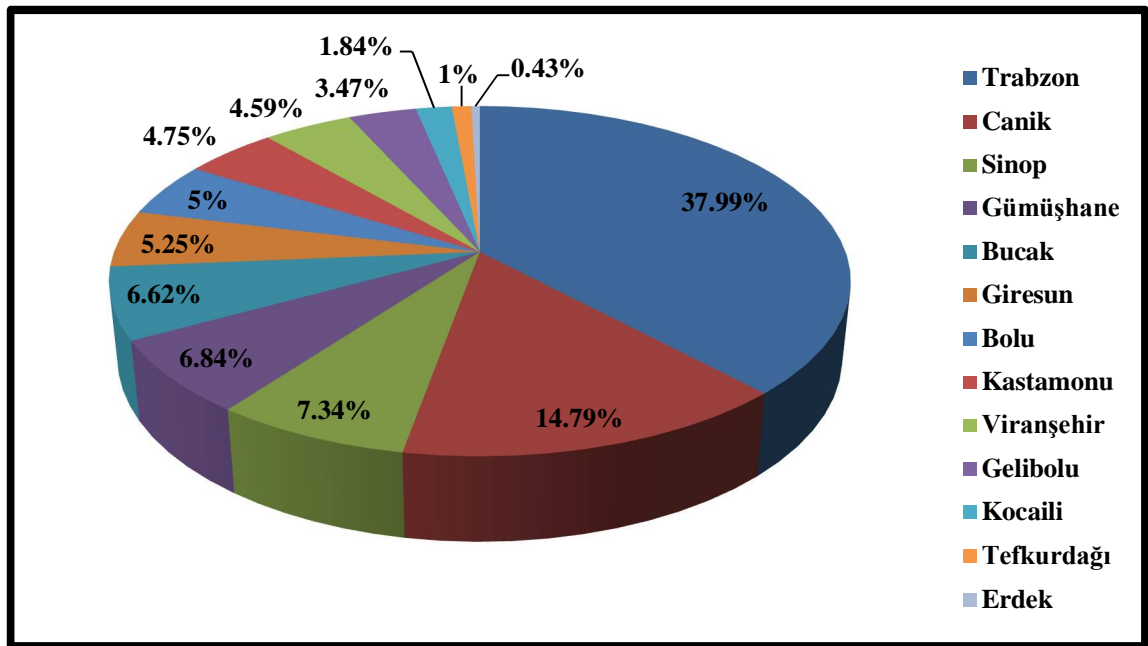


Figure 3. Distribution of Recruitment According to Sanjaks in 1864

As seen from the diagram, 3198 men enlisted for the allocation of the navy were from 13 sanjaks; nine were located on the Anatolian costs of the Black Sea, which provides 93.17% of recruits and the rest 6.74% quota was filled from the sanjaks situated in the shores of the Marmara Sea. Among recruitment zones, Trabzon and Canik came into prominence, as both supplied 52.78%, which signifies more than half of the allocated quota was met from the districts included in these two sanjaks.

In 1865, it was considered necessary to decrease the length of active service to six years and the five years of service in the reserve forces was increased to six years. With this final amendment, the total length of the naval service was specified as 12 years, and it remained without an additional alteration until the end of the reign of Sultan Abdülaziz. Furthermore, titles of petty officers in warships were replaced as gunner, boatswain, helmsman, and stoker in parallel with the titles found in European navies.²⁷⁵

The Regulation of 1868 and the Proposal Regarding the Revision of the Conscription Law

After the entrance of Hobart Pasha into the service of the Ottoman navy and the establishment of the Naval Reforms Commission, the existing regulation of conscription was reviewed and the official allocation of the coastal recruitment zones was brought to the agenda, with an official proposal presented by Hobart Pasha on 9 March 1868 for

²⁷⁵ Mahmud Şevket Paşa, 1325: 36. In the same year, the number of men employed in the active service was recorded as 10900 by Edward J. Morris, the USA Minister Resident and the total amount was 33000 with the inclusion of the reserve forces in his accounts. He also noted the monthly pay of the officers. According to this, officers ranked as admiral general, vice admiral, rear admiral, three-decker captain, commodore, commander, lieutenant commander and lieutenant were paid 227, 90, 27, 18, 13, 10, 6 and 4,5 pounds sterling respectively in 1865 (Mr Morris to Mr Seward, 15 February 1865, *United States Department of State Executive Documents Printed by order of the House of Representatives, during the First Version of the Thirty-Ninth Congress*, 1865-1866: 279).

the determination of fundamental reforms to be implemented for naval recruitment, and also for the training of officers.²⁷⁶ This proposal was prepared based on the purpose of the official separation of the naval recruitment from the regulations of the land army. For our research, it has a great importance as the deficiencies of the system were clearly stated while possible solutions were explained in detail.

It consisted of three main sections as the existing problems of the system; reasons for the non-applicability of the conscription law of 1846, and prospective reforms to be implemented as solutions. Accordingly, the main problem with naval recruitment was indicated as the process of the same regulation for both the army and the navy. Although sanjaks were located on the Anatolian coasts of the Black Sea and the shores of the Marmara Sea, in actual fact most of the conscription zones allocated for the Ottoman navy consisted of inland districts and a small number of coastal towns, which made up only about one-third of the total number of all districts. This led to endemic recruitment problems.

For the Naval Reforms Commission, the draft age specified from 19 to 25 in the conscription law was not applicable to the navy. Most of the recruits, who were randomly selected by lots, were not familiar with seafaring and their ages were relatively old to be trained for maritime applications, which prevented them from performing their active service in an effective manner. In Hobart Pasha's opinion, these recruits, who made their living mostly from agriculture and farming, had intense concentration problems due to the stress generated from the challenging nature of naval service, and also homesickness. That kind of psychological disorder prevented them from being fully engaged in their training, and a number of naval recruits developed a

²⁷⁶ BOA, İ.DH, 589-41028 (9 March 1868).

tendency for malingering²⁷⁷ in order to be discharged from active service. These difficulties were particularly experienced by the new recruits, as the time they spent learning basic principles of seamanship not only lowered their enthusiasm, but also caused interruptions in the completion of affairs both in the navy and the Imperial Naval Arsenal. In addition to this, consistency in the number of trained personnel could not be achieved as the trainees were drafted into the reserve forces right after the end of their active service.²⁷⁸ Reserve marines were also not useful for the naval applications as they could not find any opportunities to apply what they learned during their active service when they returned to their hometown. In contrast to soldiers of the land army, this led them to be inadequate in case of a sudden call for immediate action. As indicated by the existing problems, Hobart Pasha highlighted the impossibility of providing trained marines and without qualified naval personnel, it was not possible to achieve the proper operation of heavy tonnage warships.

As seen, the main reason for the insufficiency of the Ottoman navy in terms of personnel proceeded mostly from the origins of the recruits who were from the interior towns and engaged mostly in farming, which prevented them from developing a solid foundation in seafaring. As a solution, the alteration of the items regarding the naval forces in the conscription law of 1846 was proposed by the Naval Reforms Commission. The application of drawing of lots was decided to be continued as the needs of the navy for annual recruitment were more than 3000 marines, meaning it was impossible to meet the required number of marines through volunteers alone. However the requirement to be eligible for the naval recruitment was redrafted. According to this,

²⁷⁷ American Psychiatric Association defines malingering as *the intentional production of false or grossly exaggerated physical or psychological symptoms motivated by external incentives such as avoiding military duty, obtaining financial compensation, evading criminal prosecution, or obtaining drugs* (Turner, 1997: 409).

²⁷⁸ BOA, İ.DH, 589-41028-002 (9 March 1868).

as training of naval personnel was heavier than the land army, the recruits would be selected among youngsters from the districts that were located on seashores. For this reason, the inland districts would be entirely left to the land army, and the official allocation of all coastal towns would be provided to meet the needs of the Ottoman navy. The draft age for naval conscription would be determined as 16 to 22, with the priority given to 16 year-olds during the course of drawing lots. The selected recruits would be immediately sent on active service while others, who were between 18 to 22 years old, were subjected to a preparatory training for a period of one to two years. As they would not perform service during training, their active service would be calculated when they turned 20. Recruits commissioned in the warships would be selected among 16 to 18 year olds and those, who were between 18 to 22 years old, would be sent to the naval industry corps and also to the steamships as coal stokers. In addition to this, youngsters between 14 to 16 years old would be recruited to be trained in a training vessel to have an additional reserve force including 500 marines.²⁷⁹

The proposal of Hobart Pasha was approved by the Board of Admiralty and sent to the Ministry of Marine on 19 March 1868.²⁸⁰ As understood, it was aimed at training naval recruits at a young age to prevent possible deviation from the learning process, and by decreasing the age limit from 19 to 16, the stress disorders deriving from homesickness would also be eliminated. However, another document shows that negotiations on the implementation of Hobart Pasha's proposal were still being carried out nearly two years after its submission in the *Bab-ı Vala-yı Serkaskeri* (the Ministry of War). In response, the Ministry of Marine prepared an official memorandum to be sent to the Ministry of War on 30 May 1870, stating that the recruits enlisted according to

²⁷⁹ BOA, İ.DH, 589-41028-002 (9 March 1868).

²⁸⁰ BOA, İ.DH, 589-41028-002 (19 March 1868).

the conscription law for the Ottoman navy were not sufficient, even for the basic maritime applications and they were also not suited for naval training because of their age. Most of them had a tendency to malingering and there were numerous marines in the Naval Hospital waiting to be discharged with a medical report. For this reason, it was highlighted that immediate implementation of the proposed regulation of 1868 was urgently needed.²⁸¹

In parallel to this urgent need, the new law of conscription was issued on 8 March 1870. It was stated in articles 67 and 68 that military recruitment would not be performed in the zones allocated for the Imperial Naval Arsenal, and men who wanted to be enrolled for the army voluntarily from these areas would not be accepted.²⁸² In accordance with this, an application to be enlisted for the army on 2 January 1873 was rejected by the Naval Board, stating that the applicant was from Pençşenbe district, which was included in the navy's allocation and the granting of his request would be contrary to the relevant article of the conscription law of 1870.²⁸³ In this way, the official allocation regulations seem to have been enforced. However the necessary removal of inland districts from the conscription areas of the Ottoman navy was not indicated in the same regulation, and also a new arrangement pertaining to Hobart Pasha's proposal were not included.

Between the first and fourth chapters of the new regulation, the procedure of drawing lots was explained in detail. According to this, three months before the conscription, the draw officers would be sent to the recruitment zones to prepare a record book, called *esnan defteri*, including the names of the male population who had reached the age of eligibility for military recruitment, i.e. 20 to 25 years old, by

²⁸¹ DMA, MKT, 118-103 (30 May 1870).

²⁸² *Düstur-i Askeri*, 1287: 49.

²⁸³ DMA, MKT, 193-104 (16 April 1873).

comparing the population records of each district kept by the civil service (article 11).²⁸⁴ During the course of the draft, all men recorded in that book were held responsible to attend in person, and they had a right to be represented by their fathers or relatives depending upon health or other excuses (article 15).²⁸⁵ In the presence of the draw council including draw officers, their assistants, judges, muftis, and other officers, the recruitment process would start with the roll call and later men eligible for the recruitment who attended the process would be notified in the record book by signing their name with a bold K (ق). The rest who did not attend the draft without presenting a valid excuse would be directly included in the active service (Article 16).²⁸⁶ For drawing of lots, two separate bags would be prepared by the draw council and each would include an equal amount of small pieces of paper in envelopes. In the first bag, these papers would be written with all the names of attendants, while a certain amount of papers in the second one—depending upon the number of conscripts required—contained the phrase *asker oldum* (I have become a soldier) and the rest would be left blank. The names of recruits who drew envelopes written with this statement would be signed on the record book, and this process would continue until the last attendant was called by the draw officer (article 40).²⁸⁷ In addition to this, new soldiers would be given 25 days leave to complete their preparation (Article 44).²⁸⁸ As understood from a document, members of the Naval Board were commissioned to inspect this process and Captain Edhem Bey was sent to the allocated conscription zones on 8 May 1873 to check whether the draw officers performed their duties in accordance with the conscription law of 1870. While he was in charge of carrying out the investigation in

²⁸⁴ *Düstur-i Askeri*, 1287: 18-19.

²⁸⁵ *Düstur-i Askeri*, 1287: 20.

²⁸⁶ *Düstur-i Askeri*, 1287: 20-22.

²⁸⁷ *Düstur-i Askeri*, 1287: 32-35.

²⁸⁸ *Düstur-i Askeri*, 1287: 36-37.

sanjak centres, his assistant Sabri Efendi was given the responsibility of controlling all districts under his supervision.²⁸⁹ On 2 December 1870, motivated by the insufficiency of the number of personnel commissioned in the maintenance of dry docks in the Imperial Naval Arsenal, it was also stated that the new recruits could not be commissioned at the very beginning of their active service, as they needed time to reach the desired minimum level of knowledge and skills of the naval processes. According to the same document, although the required number was determined as 23177, the present number of personnel assigned to the warships, the Imperial Naval Arsenal, naval industry corps, and the Imperial Rope Manufactory was 15188. For the same year, the number of marines to be drafted into the reserve forces was 2798. As seen, the required number of personnel for the year of 1870 appears as 10000 and the quota was determined as 5000 marines since the number of needed personnel was considered to be too high to recruit in one single year.²⁹⁰ The details regarding the allocated conscription zones can be ascertained from the table below:²⁹¹

Table 5. Sanjaks and Number of Men Allocated for the Ottoman Navy in 1870

Sanjaks	Recruitment Zones	Number of Men Allocated	Total	Draw Officers
Trabzon (1 st Recruitment Zone)	Nefs-i Trabzon	64	851	Captain Emin Bey
	Maçka	90		
	Akçaili	171		
	Vakfisagir	18		
	Tonya	44		
	Vakfıkebir	161		
	Tirebolu	177		
	Görele	126		
Trabzon (2 nd Recruitment Zone)	Yomra	63	1080	Commander Emin Bey
	Sürmene	183		
	Of	274		
	Rize	432		
	Hemşin	72		
	Kura-yı Seb'a	56		

²⁸⁹ DMA, ŞUB, 1901-65 (8 May 1873).

²⁹⁰ BOA, İ.DH, 626-43544-002 (2 December 1870).

²⁹¹ BOA, İ.DH, 626-43544-001 (2 December 1870).

Gümüşhane	Nefs-i Gümüşhane	45	362	Captain Hüseyin Bey
	Kelkit	105		
	Kavkas	37		
	Yağmurdere	14		
	Torul	88		
	Kürtün-i Bala	45		
	Kürtün-i Zir	28		
Bucak	Nefs-i Bucak	72	263	Lieutenant Commander Necib Bey
	Ebülhayr	20		
	Ulubey	32		
	Habsamana	39		
	Aybastı	39		
	Perşembe (Pençşenbe)	61		
Giresun	Nefs-i Giresun	81	246	Lieutenant Commander Necib Bey
	Keşap	84		
	Akköy	30		
	Pazarsuyu	32		
	Piraziz	19		
Canik	Kavak	60	991	Commander Edhem Bey
	Çöreği	16		
	Fenaris	16		
	Keşderesi	34		
	Serkeş	47		
	Meydan	20		
	Fatsa	46		
	Ökse	52		
	Efraz	28		
	Samsun	69		
	Bafra	134		
	Alaçam	64		
	Ünye	103		
	Terme	34		
	Akçay	55		
	Çarşamba (Çıharşanba)	95		
	Ayvacık	79		
	Madenkapı	15		
	Cevizderesi	24		
Sinop	Nefs-i Sinop	16	365	Lieutenant Commander Amir Bey
	Keynolu nam Diğer Abana	80		
	İstefan	47		
	Ayandon	42		
	Gerze	31		
	Saray	69		
	Giregöz	12		
	Karasu	36		
	Çarşamba (Çıharşanba)	9		
	Yaykıl	23		
Kastamonu	Hoşalay	88	200	Lieutenant Commander Amir Bey
	Cide	71		
	İnebolu	41		

Bolu	Alaylı	50	354	Lieutenant Commander Halil Bey
	Hisarönü	20		
	Üskübü	23		
	Ereğli	89		
	Akçaşehir	18		
	Bartın	48		
	Amasra	88		
	Gölpazarı	14		
	Tefen	4		
Kocaili	Şile	40	91	Lieutenant Commander Halil Bey
	Kandıra	36		
	Karasu	15		
Gelibolu	Gelibolu	34	117	Chief Officer of the Naval Regiments Süleyman Efendi
	Malkara	17		
	Keşan	9		
	Evreşe	5		
	Meğri	7		
	İnöz	1		
	Firecik	36		
	İpsala	8		
Tekfurdağı	Tekfurdağı	33	56	
	İnecik	7		
	Şarköy	16		
Erdek	Erdek	7	24	
	Paşalimanı	4		
	Bandırma	10		
	Kapıdağı	1		
	Kemer	1		
	Cezire-i Marmara	1		

As can be seen, the number of sanjaks allocated for the Ottoman navy appears as 12 in 1870 due to the combination of Bolu and Viranşehir Sanjaks as one single conscription zone. Because of the high number of recruits, it was decided to divide the Sanjak of Trabzon into two different conscription zones. Bolaman and Çamaş districts, located in the Sanjak of Bucak in 1864, were removed from the naval conscription of 1870; Şarköy district was included in the Sanjak of Tekfurdağı and recruitment was carried out from a total of 93 districts, which also indicates that the zones allocated for the Ottoman navy remained almost the same between 1864 and 1870. This also confirms that the approval of the proposal of the Naval Reforms Commission was still in progress and for this reason, the conscription law of 1846 continued to be

implemented in these areas, which included coastal and inland districts. The diagram below illustrates the percentages of the distribution of recruits according to the sanjaks:

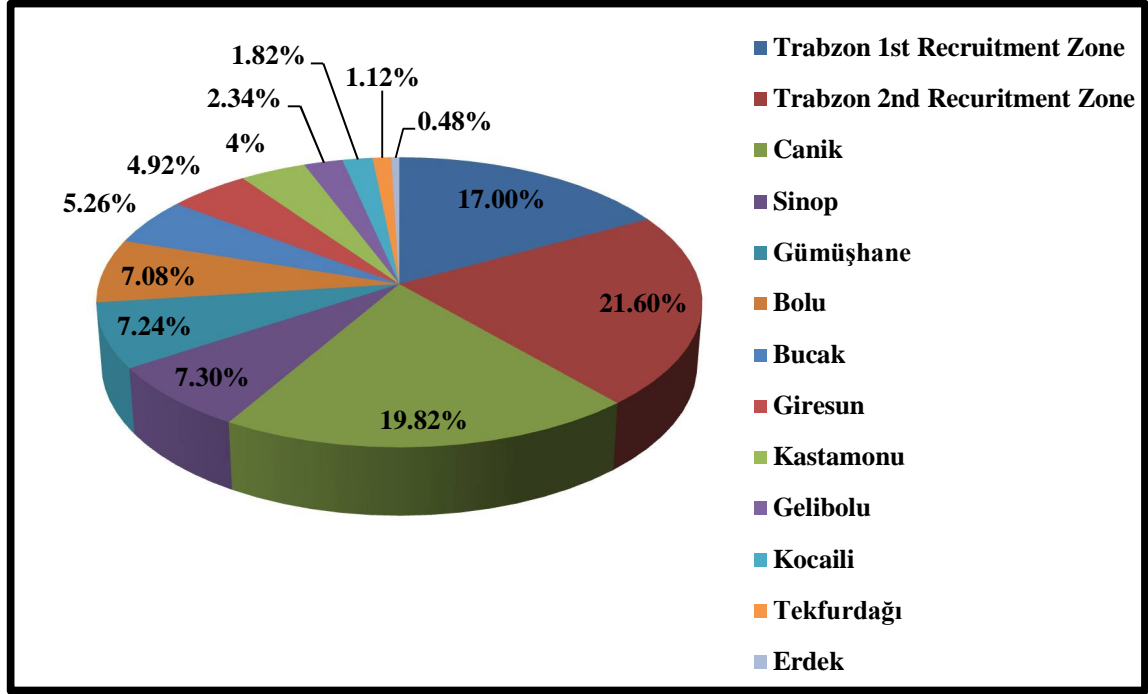


Figure 4. Distribution of Recruitment According to Sanjaks in 1870

Similar to the naval conscription of 1864, Trabzon and Canik provided 58.42% of marines and 35.8% were recruited from the other Northern Anatolian sanjaks. The remaining quota of 5.76% was filled from the coastal towns around the Sea of Marmara. Due to the high number of marines that needed to be conscripted, one-twelfth of the total number of men eligible for recruitment was allocated for the navy. The balance between the distribution zones regarding the number of recruits could not be achieved, as the male population of draft age was different for each region. The Ministry's efforts to include more men from the coastal towns were also effective in addressing this disparity.

As confirmed by the archival data, the naval service was organized under these regulations until the end of the reign of Sultan Abdülaziz, apart from an amendment on the operation of reserve forces. Thus a proposal prepared by the Naval Board was sent

to the Ministry of War on 21 August 1873, explaining the non-applicability of the present regulation to *redif* marines. According to this, constituting the greatest part of the naval forces, their number reached over 33000, a significant amount more than the marines actually performing their active service. As they would be the main body of the navy in case of an active operation, their competence in seamanship and gunnery should be ensured. However, the present conscription law required only one month training for recruits in reserve battalions, and this was considered as insufficient by the Naval Board when the current condition of the navy was taken into account. It was also stated that all wooden vessels were to be replaced with the armoured ships, mounted with the newly introduced guns and equipment. As their efficient operation and proper maintenance required having well-trained personnel, longer training should be carried out by reserve forces to solve the problem of their potential unserviceability. To gain more knowledge and experience, especially on the newly invented equipment, the Naval Board suggested that all the marines in reserve forces would spend their first year of service in the Imperial Naval Arsenal to be trained for maritime applications. In addition to this, one-fourth of the total number of recruits selected by lots for active service would be enrolled for the reserve troops in order to balance the number of marines in both active and reserve service.²⁹² The aforementioned list illustrating the zones allocated for the naval conscription for the year of 1870 was also attached in the same document,²⁹³ which gives an impression that the same regulation continued to be implemented and the number of districts as the resource of the naval recruitment remained 93 towards the end of the reign of Sultan Abdülaziz.

²⁹² BOA, İ.MMS, 471-2006 (21 August 1873).

²⁹³ BOA, İ.MMS, 471-2006 (21 August 1873).

Developments in Technical Education

From the late eighteenth century, Ottomans' relatively late awareness on the adverse impacts of the European economic challenge, which started with the Industrial Revolution, led the Ottoman territories to become a major market for foreign manufacturers and decreasing interest in domestic goods affected local producers, resulting in a significant reduction of internal sources of income. As a rapid solution, Ottoman Sultans primarily focussed on introducing new industrial techniques by developing the production of military equipment, and by importing new tools and machines and accompanying manpower from foreign countries, which resulted in an increase in the amount of output in the short term. However, the importance of seeking to close the deficit that existed in the state's treasury by enhanced use of available resources for transportation and raw materials were not considered, which meant that the Ottomans' concept of establishing a military industry was perceived as opening new factories and construction sites to increase the amount of goods. This caused acceleration of the state's dependency on western technology and the growing problem of foreign workers, who were employed with high salaries to operate, repair, and maintain technical equipment as well as training local artisans.²⁹⁴ There was also evidence of the inadequacy of guilds, which played a significant role in fulfilling the state's own needs in training craftsmen to be employed in workshops. Following the rapid increase observed in the number of manufacturing stations to meet the requirements of military and naval forces, it became clearer that the functionality of local shops organized within the body of guilds was sufficient only for the cities' public needs. For this reason, attempts regarding the establishment of technical schools started

²⁹⁴ Clark, 1974: 65-67.

from the Tanzimat reform era to create a qualified workforce to work in the factories. In accordance with this purpose, the first industrial school was opened in 1848 in Zeytinburnu, but training could not be started due to the inadequate number of instructors and lack of interest on the part of the public during the admission process.²⁹⁵ In the reign of Sultan Abdülaziz, the most important attempt to increase the number of trained local craftsmen was the establishment of workhouses, which started with the efforts of governor of Nis, Mithat Pasha in 1863. In the same year, the first workhouse for orphaned children was established and later similar ateliers spread out into the provinces to train 5-14 year old children in tailoring, shoemaking, leather crafting, typesetting, carpentry, weaving, and thread making.²⁹⁶

The total number of attendants was determined between 150 and 200 students in these workhouses, which did not require great expenses for the state as the sources of income mainly consisted of donations from public and private funds created by the local governments. The idea of protection for homeless children of immigrant families, and the increasing rates in productivity later evoked a positive reaction, and following the arrival of the regulation prepared by Mithat Pasha in 1871, the admission process and the administration of workhouses were connected with a general provision, which resulted in the opening of similar units in Rustchuk, Sofia, Izmir, Diyarbakır, Kastamonu, Erzurum, Baghdad, Adana, Crete, Konya, Edirne, Thessaloniki, Jerusalem, and Manastır between 1871 and 1873.²⁹⁷ According to the regulation of 1871, the students would be selected without differentiating between religion and ethnicity among 12-13 year old orphaned children, and their relatives and guardians would not be allowed to discharge them from the school before the completion of their training.

²⁹⁵ Semiz and Kuş, 2004: 276-277.

²⁹⁶ Yıldırım, 2010: 173; Yıldırım and Şahin, 2015: 84.

²⁹⁷ Yıldırım, 2010: 175-178.

While the school would be free for orphans—applicants, whose parents were alive—were obliged to pay an annual tuition fee amounting to 500 kuruş.²⁹⁸

After the appointment of Mithat Pasha—the governor of the Danube Province—as the president of the Council of State in 1868, the existing preparations for the foundation of a high capacity workhouse in Istanbul were accelerated and training in the workhouse of Istanbul started in September 1868 under the name of *Mekteb-i Sanayi* (School of Industry), with a hundred students in the old sword factory in the Sultanahmet district. Later, a small factory was constructed near the school building and ateliers were set up for the practical training of pupils.²⁹⁹ In addition to this, the school's 64-item regulation was issued by the Council of State on 11 December 1868 regarding the principles of the training, the school's curriculum and the administration.³⁰⁰ According to this, training would be provided in two branches as the internal and external sections and the students enrolled in the internal branch would not be over 13 years-old, would be registered as boarding students, and their number would not exceed 500. The age limit for the external branch was specified as 30 and they would attend only the morning classes. The quota for these students was determined as 250 people.³⁰¹ While the practical training was mainly focused on different branches of craftsmanship such as ironworking, foundry, mechanics, architecture, mining, wood processing, tailoring, shoemaking, and bookbinding, the introduction of literacy, mathematics, geography, geometry, and chemistry was also included in the course programme as most of the students had not received education before starting their technical training in

²⁹⁸ Yıldırım, 2010: 188

²⁹⁹ Yıldırım, 2010: 212; Semiz and Kuş, 2004: 280.

³⁰⁰ For the full text of the regulation of the School of Industry see *Düstur, Birinci Tertip*, II, 1289: 258-267.

³⁰¹ Yıldırım, 2010: 221-222; Semiz and Kuş, 2004: 281.

the School of Industry. The table below illustrates the curriculum of the school determined according to the regulation of 1868.³⁰²

Table 6. The Curriculum of the School of Industry According to the Regulation issued in 1868

1 st Grade	2 nd Grade	3 rd Grade	4 th Grade	5 th Grade
Principals of Craftsmanship	Principals of Craftsmanship	Principals of Craftsmanship	Principals of Craftsmanship	Principals of Craftsmanship
Turkish literacy	Turkish literacy	Turkish literacy and bookkeeping	Writing with accurate spelling	Writing with accurate spelling
Basic mathematics	Basic mathematics	Perfect Drawing	Method of bookkeeping	Application of the relevant formulations of mathematics and chemistry to their assigned area of craftsmanship
Drawing	Drawing	Geometry	Characteristics of hard and wooden materials	
Introduction to Geometry	Introduction to Geometry	Introduction to Chemistry	Principals of basic devices such as lever, reel, inclined plane, wedge and screw.	Method of Architecture
	Introduction to Geography	Introduction to Mechanics	Introduction to Mechanics	Method of Mechanics
Apprenticeship	Assistant foremanship (in the assigned area of craftsmanship and under the supervision of masters)	Assistant foremanship (in the assigned area of craftsmanship and by themselves, without any aid).	First Degree Assistant foremanship (in the assigned area of craftsmanship)	Mastership

As seen from the table, the length of education was determined as five years and the pupils, who were successful in their exams at the end of the first year, were entitled to the apprenticeship. The successful students of the 2nd, 3rd and 4th grades were gradually qualified as assistant foremen, eventually graduating from the school with the title of master. According to their daily schedule, while the theoretical modules were

³⁰² *Düstur, Birinci Tertip*, II, 1289; 259-260; Semiz and Kuş, 2004: 293; Yıldırım, 2010: 225-226.

given to the students until afternoon, the rest of the day was allocated for the application of the courses regarding their assigned areas of craftsmanship.³⁰³

In order to enable skilled students to closely follow the developments in European industry, a group of 20 students were sent to Paris on 13 January 1870. This first group began to receive training in the areas regarding turnery, bookbinding, foundry, forging, carpet making, upholstery, carpentry, pattern making, jewellery making, saddlery, shoe making, tailoring, engraving, tile making, and mechanics. The second group that arrived in Paris on 8 December 1872 consisted of 20 students from the School of Industry and Rustchuk Industrial Workhouse, and their training concentrated on tailoring, printing and typesetting, woollen drapery, weaving, carpentry, foundry, and woodworking.³⁰⁴ In 1873, a group of 17 students was sent again to Europe to be trained in machine and machine tools repairing, mechanics, cabinet making, foundry, jewellery making, glazing, and copper engraving.³⁰⁵

The successful graduates were given the right to be employed in governmental organizations. Although students, who wanted to set up their own business, were supported both financially and institutionally by the government, the graduates were encouraged to be commissioned in the state sectors and employed in the establishments of the military industry to perform their compulsory military service. The School of Industry continued its activities with an expanded quota until the reign of Sultan Abdülaziz, and in spite of the negative impact of the Ottoman-Russian War of 1877-1878, the system of technical education regulated by the regulation of 1868 was maintained until 1882.³⁰⁶

³⁰³ Semiz and Kuş, 2004: 280-281; Yıldırım, 2010: 227.

³⁰⁴ Şişman, 2004: 75, 80-81.

³⁰⁵ Yıldırım, 2010: 230.

³⁰⁶ Semiz and Kuş, 2004: 282.

The Naval Industry Corps

The purpose of the proper adaptation of steam power and armour technology into the Ottoman naval industry made the establishment of new stations in the Imperial Naval Arsenal for manufacturing and construction of naval equipment and their repair and maintenance necessary in the period of Sultan Abdülaziz. However, efforts made to improve the existing factories and stores, and to open new ones, revealed an insufficient number of qualified personnel, creating a significant problem. To address this, applicable solutions were presented by the administrative units of the navy. Being perhaps the easiest way, the importation of manpower and technological knowhow was preferred primarily to reinforce the Imperial Naval Arsenal for the continuation of the activities without any interruption, but a major drawback of this solution was that the large salaries paid for these workers would lead to an increase in the existing fiscal deficit and, possibly, a conflict with their Turkish counterparts. For this reason, in parallel with the workhouses, the establishment of naval industry corps was seen as a more beneficial solution both financially and politically, helping to increase the number of local workers in the Imperial Naval Arsenal.

The industrial corps founded name was “craftsmen troops” and its purpose was to strengthen the workforce of the Imperial Naval Arsenal in 1859.³⁰⁷ Following the acceptance of the proposal of the Naval Board to change the name of this organization as the “naval industry corps” by the office of Kapudan Pasha on 25 March 1863, the troops were arranged under this title from this date forward.³⁰⁸ When the archival documents regarding the recruitment process are examined, it can be seen that those who were employed in this corps were subjected to a preparatory training in a prior

³⁰⁷ Kurt, 2014: 161-162.

³⁰⁸ DMA, ŞUB, 1865-77 (25 March 1863).

organization, called “junior divisions” and successful attendants were sent to the naval industry corps to perform their military service. For this purpose, the junior divisions were established on 3 August 1862 following the preparation of the regulations by the Naval Board on the same date.³⁰⁹ The same regulation was expanded with the addition of new items on 22 December 1863 and 24 January 1864, containing more detailed concepts.

Accordingly, being constituted as two divisions in parallel with the structuring of the naval industry corps, the junior divisions later included three units with the opening of a blacksmith division on 22 December 1863.³¹⁰ Being very similar to the admission regulations of workhouses, those who would be employed in this organization were chosen among children who were living in Istanbul and between 13 and 16 years old. Applications were made by their parents or next of kin (if they were orphans) with a letter, which included an approval letter from their guardians and a certificate, confirming that they were from Istanbul. Successful applicants were examined in the Naval Hospital and following that they were stated as fit, registration procedures were completed.³¹¹ As seen from the regulations, the Naval Board found it of great importance to recruit a certain number of children per year, so as to ensure the allocated quota would remain full. It was emphasised that the registered children were given the same uniforms and provisions, but their salaries were determined as 20 kuruş each, unlike the other marines.³¹²

³⁰⁹ DMA, ŞUB, 1824-105 (3 August 1862).

³¹⁰ DMA, ŞUB, 1882, 41A-4A (22 December 1863); DMA, ŞUB, 1865-93 (28 December 1863).

³¹¹ DMA, ŞUB, 1824-105 (3 August 1862); DMA, ŞUB, 1824-106 (3 August 1862); DMA, ŞUB, 1882, 41A-4A (22 December 1863); DMA, ŞUB, 1865-93 (28 December 1863); A.MKT.MHM, 288-58 (28 December 1863); *Ceride-i Askeriyye*, ‘Mevadd-ı Bahriye’, 2, 24 January 1864.

³¹² DMA, ŞUB, 1824-106 (3 August 1862).

Students trained in the junior divisions until the age of 18, then were sent to the naval industry corps to start the compulsory military service. Evidently, we can derive from this that the term that they spent in junior corps was not regarded as a part of their compulsory military service but was accepted as an apprenticeship stage, and their period of service as marines was calculated from the starting day of their assigned position in the naval industry corps.³¹³ However, they procured the title of “marine” from the day of registry, meaning they would be qualified for a pension if sustaining an injury that forced their retirement occurred during their training.³¹⁴ As seen, in spite of the similarities in structuring to the workhouses, pupils recruited for the naval corps were subjected to the military regulations and following the completion of their education in the junior divisions, they were obliged to continue their training in the naval industry corps. Recruiting industrial corps was also seen as an alternative solution for the refugee problem, which emerged after the gradual migration process of the Ottoman population to Anatolia from the lost territories in the Balkans and Caucasus. Depending on this, it was decided to recruit eligible candidates among Circassian refugees from Trabzon, Canik, Gümüşhane and Sinop in 1863.³¹⁵

As the age limit was 16 for applicants, it was strictly prohibited to register those who were older than 16. On the other hand, it was decided that 18 year-old youths, who wished to be registered in the junior divisions, would be sent directly to the industry corps in order to fulfil their desire to have a profession in a military organization.³¹⁶ In addition to this, it was deemed appropriate to confer a certain amount of gratuity and a

³¹³ DMA, ŞUB, 1824-106 (3 August 1862). The age limit was amended as 19 in the following regulations (DMA, ŞUB, 1882, 41A-4A, 22 December 1863; *Ceride-i Askeriyye*, ‘Mevadd-ı Bahriye’, 2, 24 January 1864.).

³¹⁴ DMA, ŞUB, 1824-106 (3 August 1862); DMA, ŞUB, 1882, 41A-4A (22 December 1863); *Ceride-i Askeriyye*, ‘Mevadd-ı Bahriye’, 2, 24 January 1864.

³¹⁵ Kurt, 2014: 162-163.

³¹⁶ DMA, ŞUB, 1824-106 (3 August 1862); *Ceride-i Askeriyye*, ‘Mevadd-ı Bahriye’, 2, 24 January 1864.

certificate from the Imperial Naval Arsenal to those naval craftsmen who successfully completed their military service by demonstrating their competence during their apprenticeship.³¹⁷ During the admission period, letters stating the applicants' request to spend their training in the warships could be accepted on the grounds that they would be given the same salary, provision, and uniform as those in the junior divisions. When they were 18 years-old, their military service was begun and they would deserve to be paid the full salary of a marine, which was 30 kuruş. The same as for the junior division, they would be qualified for a pension if an injury occurred during their apprenticeship.³¹⁸

During their training, each student was expected to properly learn the craft branch, which was determined in accordance with the student's capability, and their education also included the introductory featured modules such as literacy, drawing, defining the measurements, usage of scale, and basic mathematics under the supervision of naval officers ranked as lieutenant and sub-lieutenant, petty officers, and non-commissioned officers whose technical expertise and experience was deemed sufficient.³¹⁹ Furthermore, the successful students of the junior divisions were given the right to be commissioned in the naval industry corps as sub-lieutenant and lieutenant, and their advancement was deferred until being promoted as captain by the Naval Board.³²⁰

In the Imperial Naval Arsenal and other determined positions, they were employed to be trained in several fields of artisanship as ironsmiths, steelmakers,

³¹⁷ *Ceride-i Askeriyye*, 'Mevadd-ı Bahriye', 2, 24 January 1864.

³¹⁸ DMA, ŞUB, 1824-106 (3 August 1862); DMA, ŞUB, 1882, 41B-5A (22 December 1863); DMA, ŞUB, 1865-93 (28 December 1863); *Ceride-i Askeriyye*, 'Mevadd-ı Bahriye', 2, 24 January 1864.

³¹⁹ DMA, ŞUB, 1882, 41B-5A (22 December 1863); *Ceride-i Askeriyye*, 'Mevadd-ı Bahriye', 2, 24 January 1864.

³²⁰ *Ceride-i Askeriyye*, 'Mevadd-ı Bahriye', 2, 24 January 1864.

locksmiths, gunsmiths, carpenters, shoemakers, engravers, and sailmakers. In the regulations dated 1863 and 1864, these areas were highlighted as the most needed manufacturing stations by the naval industry and it was also stated that the consistency in the manufacturing activities also facilitated the workload of the Provision Unit.³²¹ For this reason, it can be said that the main purpose of the Naval Board by the establishing auxiliary units, like the naval industry corps and the junior divisions, was to receive assistance from the younger members of the workforce to keep the level of production at a certain pace whilst also creating new work areas for the young population, who would gain a profession for a career at the end of their military service. This idea can also be followed in the 9th article of the regulation dated 1863 that each marine from the industry corps would be given a free toolset regarding their profession, and also a diploma of craftsmanship to help them in opening their stores following the end of their military service.³²²

As mentioned, the number of junior divisions was increased to three with the addition of a blacksmith division in 1863. To be employed in this division, students were supposed to be competent in writing and reading and, after two years of preparatory training, successful students would be able to start their apprenticeship in the first grade of the blacksmith division. Failure of students in the preparatory phase resulted in their removal and they would be sent to the other divisions to be trained in different craft branches, forging in particular.³²³ On 14 June 1868, the Naval Board was informed by the Directorate of Factories that the number of students in each class was disproportional as it was allowed to accept 155 students for the first grade, which

³²¹ DMA, ŞUB, 1882, 41B-5A (22 December 1863); *Ceride-i Askeriyye*, 'Mevadd-ı Bahriye', 2, 24 January 1864.

³²² DMA, ŞUB, 1824-106 (3 August 1862); DMA, ŞUB, 1882, 41B-5A (22 December 1863).

³²³ DMA, ŞUB, 1882, 41B-5A (22 December 1863).

caused the size of other grades to be very low. For this reason, it was stated in the same document that the balance between classes would be provided by passing the students, who proved their competence in their present class, onto a higher degree.³²⁴ From the table below, the previous and current arrangements and also the number of students can be followed:³²⁵

Table 7. The Number of Students in the Naval Blacksmith Corps in 1868

Previous Arrangement		Current Arrangement	
<i>Name of the Class</i>	<i>Size</i>	<i>Name of the Class</i>	<i>Size</i>
Junior Class, 1 st Grade	155	Junior Class, 1 st Grade	65
Junior Class, 2 nd Grade	45	Junior Class, 2 nd Grade	55
Blacksmith Class, 1 st Grade	20	Blacksmith Class, 1 st Grade	45
Blacksmith Class, 2 nd Grade	18	Blacksmith Class, 2 nd Grade	35
Blacksmith Class, 3 rd Grade	16	Blacksmith Class, 3 rd Grade	30
Blacksmith Class, 4 th Grade	14	Blacksmith Class, 4 th Grade	25
Blacksmith Class, 5 th Grade	12	Blacksmith Class, 5 th Grade	25
Total Number of Students	280	Total Number of Students	280

As seen, the number of students in the blacksmith division reached 280 by the end of the 1860s. Table 7 also gives information regarding the structuring of this division by indicating the first two years with the junior class as the preparatory phase of their apprenticeship. After spending five more years, they were qualified to be commissioned in the Imperial Naval Arsenal as blacksmiths. However, permanent reduction observed in the number of students passing the upper class and the low number of final year students proved that the intended number of graduates could not be achieved and unsuccessful students were transferred into the other craft branches.

³²⁴ BOA, İ.DH. 576-4154 (14 June 1868).

³²⁵ BOA, İ.DH. 576-4154 (14 June 1868).

After the establishment of the School of Industry in 1868, training started to be provided also by the school, and an increase was observed in the number of marines commissioned in the naval industry corps towards 1869. The table below shows the number of students in blacksmith division in 1869:³²⁶

Table 8. The Number of Marines of the Blacksmith Corps commissioned in the Manufacturing Stations of the Imperial Naval Arsenal in 1869

Manufacturing Stations	Marines in the Blacksmith Division		Number of <i>Başbozuk</i> Students in the Blacksmith Division		
	<i>Number of Students</i>	<i>Number of days per year to serve</i>	<i>Grade</i>	<i>Number of Students</i>	<i>Number of days per year to serve</i>
Yalıköşkü Factory	---	---	1	13	1.5
			2	2	3
			3	3	5
			4	2	8
			5	1	15
Repair Factory	95	40	1	18	1.5
			2	13	3
			3	15	5
	90	20	4	8	8
			5	7	12
			6	7	15
Total	185	---	---	89	---

It can be seen that the total number of students of the School of Industry enrolled in the blacksmith division reached 274 by the end of 1869. As seen from the table, they served a number of days per year without daily pay as part of their training, and the number of days served as an apprentice was increased as they advanced year by year. Marines in the same division, called *askeri şakirdanı*, were expected to offer longer service per year of between 20 and 40 days. However, a gradual decline is observed in the number of *başbozuk* students in the blacksmith division as from a group of 18 in the 1st year, only eight students remained by the Year 6 while the other group, which started

³²⁶ DMA, ŞUB, 53B-42A (December 1869).

with 13 students, gave only one graduate after five years. This confirms that the consistency in the number of graduates could not be achieved, indicating the failure of the system to reach the intended number of master blacksmiths in the beginning of the 1870s. Another considerable element of the table is the employment of these students in the Yalıköşkü and Repair Factories, where British workers were mostly commissioned. This gives an impression that it was deemed suitable for those students to spend their apprenticeship under the supervision of British masters and foremen. The same document also gives detailed information about the number of marines and their assigned position in the manufacturing and construction stations of the Imperial Naval Arsenal in 1869.³²⁷

Table 9. The Number of Marines Commissioned in the Construction Stations in the Imperial Naval Arsenal in 1869

Construction Stations	Number of Marines from the Naval Industry Corps
Iron Foundry Factory	35
Ironworks Factory	75
Armoury Factory	67
Boiler Factory	65
Carpenter, Capstan, Oar, Pannier Store	40
Cartwright Store	22
Carpenter Store	40
Lifeboat Store	45
Sail Store	42
Barrel Store	29
Reel Store	34
Painting Factory	49
Pattern Factory	8
Screw Making Store	24
Caulker Store	43
Carpenters for Dry-docks	95
Ironworks Factory for Dry-docks	9
Screw Making Store for Dry-docks	14
Caulker Store for Dry-docks	17
Sawmill and Reel Factory for Dry-docks	36

³²⁷ DMA, ŞUB, 53B-43A (December 1869); DMA, ŞUB, 53B-44A (December 1869); DMA, ŞUB, 53B-45A (December 1869); DMA, ŞUB, 53B-46A (December 1869).

Cabinet Maker Store	75
Engraver Store	14
Total Number	878

As understood, a total of 878 marines were performing their military service in different stations of the Imperial Naval Arsenal at the end of 1869. While the Carpenter, Capstan, Oar, Pannier Store, and Barrel Store were directed only by these marines, they were employed in the other stations under the supervision of local and foreign workers. As expected, their number of days to serve was higher than the students in the junior divisions and it was determined as 20 to 40 days per year.

In addition to these divisions, the proposal of the Naval Board regarding the establishment of another class called riveters was approved by the Ministry of Marine on 17 May 1868.³²⁸ In this proposal, it was suggested that the rivets needed for the construction of steamers were manufactured by 27 foremen, who were brought from Britain with high salaries. For this reason, recruitment of the same number of students, who were from Istanbul and between 12 and 18 years old, was deemed necessary to train on rivet production under the supervision of British masters in the Imperial Naval Arsenal.³²⁹ On 12 June 1868, the statement of the Ministry was confirmed by an imperial decree and the rivet class in the junior division was established in this way.³³⁰

As seen, students spent their apprenticeship and assistant foremanship in the Imperial Naval Arsenal until 1868 and after the opening of the School of Industry in the same year, their education was placed in a more institutional framework. After spending five years in the school, they were sent to the Imperial Naval Arsenal to perform their

³²⁸ Gencer, 2001: 326.

³²⁹ Kurt, 2014: 164.

³³⁰ Gencer, 2001: 326.

military service and continue their training under the supervision of foreign and local workers.

Conclusion

In the reign of Sultan Abdülaziz, many reforms and amendments were implemented in order to meet the urgent need of the Ottoman Navy and the Imperial Naval Arsenal in terms of personnel.

Naval service was determined as a total of 12 years and the districts located on the Anatolian coasts of the Black Sea and the shores of the Sea of Marmara were specified as the conscription zones allocated for the Ottoman Navy. During the recruitment process, drawing of lots was accepted as the selection method of the marines in accordance with the conscription law of 1846 and 1870 and reserve marines spent the first year of their six years' service of naval training in the Imperial Naval Arsenal. However, as presented by Hobart Pasha in 1868, sufficiency of both active and reserve service, especially for the efficient operation and maintenance of warships, could not be achieved as most of the marines lacked the required knowledge—even on basic maritime applications. They were having difficulties to adapt into the challenging system of the navy and this seems the main obstacle preventing the successful accomplishment of naval modernization. However, archival data shows that his recommendations were only approved by the naval units and confirmation from the Ministry of War could not be obtained, which caused the regulations for the service of the land army to remain as the model for naval conscription. With the establishment of the naval industry corps, the state not only provided training and a profession for orphaned children, but also presented a beneficial solution to the problems regarding

immigration and unemployment. This was also a reasonable way to increase number of trained local personnel in the Imperial Naval Arsenal and prevented possible interruptions in manufacturing activities by recruiting a young workforce provided by the naval industry corps.

CHAPTER 5. THE NAVAL ACADEMY AND THE DEVELOPMENT OF NAVAL EDUCATION

Introduction

The Ottoman naval education system, which was organized by modelling the western institutions during the last quarter of the eighteenth century, was not fully settled until the 1860s. As seen in the first chapter, besides the constant changes in the administrative mentality and the regulation of the school according to the opinions of the administrators, the inconsistency of the Ottoman Empire in political relations with the Great Powers—particularly before the Crimean War—caused the foreign experts, who had been brought from abroad and commissioned into the navy, to rapidly return to their native countries at the beginning of the 1850s. According to a report prepared between 1842 and 1844 by Captain Baldwin Wake Walker, the new reforms could not be applied properly due to an inadequate number of teachers. In addition to this, some students' attendance was poor, risking an underprepared workforce in maritime applications when they graduated from the college with the rank of sub-lieutenant. For this reason, it was deemed essential to increase the training courses regarding mapping and practice, and to arrange the course programmes in a scheme. Furthermore, a printing press must be instituted in order to print the textbooks.³³¹

In 1842, Patrona Mustafa Pasha was appointed as the minister of the school. According to his *layiha* dated 1848, inequality in the military training system emerged due to the lower budget allocated for the Naval School compared to the budget of the Military Academy. To improve the training of the naval students, the number of teachers for the modules, named *cerr-i eskal* (mechanics), technical drawing, and

³³¹ Sayacı: 27-28; Uzunçarşılı, 1988: 510.

algebra, should be increased and the dismissal of students who failed in their class two years consecutively must be made obligatory. Furthermore, the pupils should be chosen from 14-16 years old, fit candidates whose families were involved in seafaring and, taking into account the capacity of the school, the student quotas must be determined as 140.³³² This proposal was approved by the *Şura-yı Bahriye* with two additional articles: English would become compulsory, while French lessons were made optional and two vessels would be assigned for the practical training of students. After its confirmation, the establishment of a *İdadi Mektebi* (senior high school) was brought to the agenda in order to prepare skilful candidates for the Naval Academy. As a suitable place around the Naval Academy's current building could not be found, the school was again moved to Heybeliada on 14 December 1851. In that period, *Müşavir Pasha* was closely connected with the modernization of the naval training. Lieutenant Commander Emin Efendi was sent to the United States and returned with learning material that enriched the library with books regarding military procedures, ordinances, and shipbuilding applications. Towards the end of the 1850s, the Naval School rose to 150 students and became one of the most modernized educational institutions of the Ottoman Empire with its library, student dormitory, hospital, and pharmacy.³³³

However, the replacement of the school building six times from its foundation in 1775, to its transfer to Heybeliada in 1851, often led to interruptions in the training of the students. Despite the challenging nature of the educational programme at the Naval Academy, which required heavy investment, the budget of the army was typically greater in this period in order to prevent further land losses along the frontiers, with

³³² Sayacı: 32-33; Çoker, 2006: 15-16; Gökçay, 2005: 21; Uzunçarşılı, 1988: 510.

³³³ Sayacı: 40-41; Çoker, 2006: 17-18; Gökçay, 2005: 22; Uzunçarşılı, 1988: 511.

Russia in particular. This budget gap for the naval education resulted in the reduction of interest in enrolling for the educational programme devised, but underfunded.

Following the accession of Sultan Abdülaziz to the throne in 1861, the need for the newly-developed naval technologies to be adapted for the current system within a short period of time, emerged with the arrival of the armoured vessels added to the navy by way of purchasing and new construction. This situation brought about the need for qualified personnel to operate the increasing number of ironclads within a decade of his accession to the throne. However, it was obvious that the current status of the school was far from meeting this urgent need. For this reason, the Naval Academy was improved in terms of the quality of training and the resolution to this problem became one of the most important factors of the extensive modernization carried out in the same period.

Accordingly, this chapter considers the progress of the Naval Academy and the reorganization of naval education in the reign of Sultan Abdülaziz. It starts by examining the primary criteria when selecting the students during admission process, and challenges the alterations made to rearrange the length of education and the student placement quotas whether they were sufficient to meet the expectation for the targeted number of qualified personnel. By detailed examination of archival sources, we have found that the Naval Academy was more properly regulated but it offered a far superior naval training during this period. The reasons for this will also be detailed by considering the nature of new training methods, the quality of the curriculum and the standards of teaching.

In the final part of the chapter, we will focus more on the practical training, which allowed cadets and also marines to show their competence offshore. As

confirmed by archival data, this stage of naval education was undertaken in two phases: preparatory training carried out in harbour training ships and the offshore training of students in seagoing vessels. By scrutinizing the regulations arranged by the Ministry of Marine exclusively for the training of cadets' in seamanship, everyday life in the ship, the routing of training vessels and application of courses will be detailed to have a clear understanding how they pursued their studies in a demanding practical environment and what difficulties they encountered during cruising.

The Foundation of the *Bahriye İdadi Mektebi* (the Naval High School) and the Regulations of the Student Recruitment

The training provided by the Naval Academy was included in the *âli* (higher) education system of the Ottoman Empire and represented the most prestigious and challenging programme of study in the nineteenth century. For this reason, it was not possible to register students without proper vetting, and the principal criteria for their admission included their age and previous schooling.

However, the difficulties faced by pupils in the context of especially profession-lead courses revealed the need for the establishment of a preparatory school in order to provide well-trained candidates.

In accordance with this purpose, *Bahriye İdadi Mektebi* (the Naval High School) was established in 1852 alongside the efforts of the manager, Patrona Halil Pasha, and it was decided that successful graduates of *İdadi Mektebi* should be chosen for the student admission process of the Naval Academy, which would be carried out during the holy

months.³³⁴ According to the new regulations accepted by the school's administration, priority would be given to the children of military and civilian officers of the navy until the first graduating class of the Naval High School's students. If a sufficient number was not achieved, 14 to 16 year old, healthy candidates, who were able to recite the Quran, would be accepted for the entrance examination.³³⁵ For the entrance exam of high school candidates, the age limit was 11 to 13.³³⁶ After being taught the introductory parts of the technical courses until their graduation, the students would take another exam to register to the Naval Academy.

The number of registered students in the Naval High School appears in an archival document dated 11 March 1865 as 88. Realising a potential inadequacy in this number, it was suggested in this document that the quota of 1865 should be 100, with the addition of 12 more students, for the purpose of creating a sufficient amount of skilful candidates for the Naval Academy. Thereafter, ten students should be added each year from 1866 onwards to increase the quota of the school to 150 by 1870.³³⁷ Another document dated 25 July 1873 shows that these recommendations were accepted. In this official protocol penned by the Naval Board to highlight the same problem, the period of study was specified as four years and the admitted students spent their first year in a preparatory class called *iẖtiyat* or *mü̱btedi sınıfı*. Accordingly, despite the order designed to keep the naval personnel at a certain number, in accordance with the

³³⁴ “Mekteb-i Bahriye cenab-ı mülukane için bundan böyle alınacak şakirdanın, Meclis-i Bahriye’den ba-müzekere ifade olunduğu ve mekteb-i harbiye-i şahane idadiyesi şakirdanı hakkında icra kılındığı vechle ol emirde idadiye-i bahriyeye kayd ve dahil olunarak kesb-i iktidar eyledikten sonra mekteb-i bahriyeye alınması ve işbu alınacak şakirdan mah-ı receb-i şerifde bedde ile şehir-i ramazan-ı şerif nihayetine kadar üç mah zarfında alınıp evkat-ı sairede kimesne alınmaması hususlarının nizam-ı ittihazıyla mekteb-i mezbur nizamnamesine zeyl ve ilave kılınması zımında keyfiyetin sub-ı devletlerine havalesi Meclis-i Vala’da tensib ve (Padişahımızdan) istizan olunarak irade buyurulmuş olmağla ber mentuk-i irade-i seniyye-i şahane iktizasının icrasına itina ve himmet buyurula deyü” Gurre Muharrem Sene 1269, Safvet, 1329: 61.

³³⁵ Çoker, 2006: 15-16; Gökçay, 2005: 21; Uzunçarşılı, 1988: 510.

³³⁶ DMA, ŞUB, 27-55A (21 January 1857).

³³⁷ DMA, MKT, 60-28 (11 March 1865).

decision regarding the application of new technologies to the Ottoman Navy, the Naval Academy failed both in the administration of the navy and in the practical training of naval cadets in particular. Due to the inadequate student admissions, the expected number of graduates to be commissioned both in the Navy and the Imperial Naval Arsenal proved unachievable. For this reason, the quota of the *ihtiyat* or *müptedi sınıfı* totalled 60, while the size of each of the other three reached only 44. Because of this, the period of study was adjusted to four years, with the additional one preparatory year, and the total number of students went up to 192 in 1873.³³⁸ As a result, the Naval Academy became an institution which provided education for a total of eight years along with one preparation year; three years in high school and four years of higher education.

In spite of these arrangements regarding preparatory training exclusively for naval cadets, it was proposed on 29 January 1865 that all other education should be combined to include the high schools of navy, army, artillery, and military medicine.³³⁹ Although the reason for this is not specifically mentioned in the document, it seems likely that its purpose was to reduce the additional cost incurred by the foundation of separate high schools for each unit of the military services. As is understood from a statement in another document dated 27 August 1876, it is possible to say that this offer was not put into practice until ten years later. The document stated:

The imperial decree regarding the transfer of the military high schools to the combined high school is now issued after the decision taken by the commission which had been constituted last year. In this respect, the students of the Naval High School were to be sent to the Umumi İdadi Mektebi (General Military High School).³⁴⁰

³³⁸ BOA, İ.MMS, 46-1982 (25 July 1873).

³³⁹ BOA, İ.DH, 533-36946 (29 January 1865).

³⁴⁰ BOA, İ.DH, 733-60062 (27 August 1876).

As a result of our archival research, we have confirmed the exact date of the Naval High School's transfer to the General Military High School as 10 June 1875. The first archival document about this decision was a verdict, which registered the Sultan's approval for the Ministry of Marine's proposal with an imperial decree dated 30 May 1875.³⁴¹ Following this decision, the high school students were transferred to the General Military High School, located in Hasköy, with a group of 14 servants on 10 June 1875.³⁴² However, this new combined military education led to new problems that developed quickly as was underlined in a document sent to the Ministry dated 17 November 1875.³⁴³

Within the framework of our main purpose to modernize the naval education, the Naval High School students were sent to the General Military High School after the Sultan's approval. As the curriculums of these schools are different from each other, it has been decided that the students of the Naval High School should start their education with the first grade students of the General High School, so as to prevent a possible conflict between the modules which may affect students' performance negatively. However, due to this situation, it will not be possible to receive high school graduates into the Naval Academy for at least three years. In accordance with the Academy's regulations, the students of the Department of Navy in the Naval Academy should be sent to the training ship after receiving three years of theoretical education. Following the completion of practical training, it is expected for them to participate in the Navy. If we wait for the high school graduates for three years, the education of the Department of Navy in the Academy should be delayed for the same period.

In order to avoid problems that might arise from this situation, it was suggested to combine the modules belonging to the upper classes with the first grade lectures of the students coming from Heybeliada. Through these measures, their graduation period would be shortened. In addition to this, 25 graduates of the General High School would be chosen to be registered for the Naval Academy for the year 1875 after completing their compulsory preparatory modules in English language. Although these

³⁴¹ DMA, MKP, 4463/6-1-4 (30 May 1875).

³⁴² DMA, MKP, 4463/7-1-2 (10 June 1875).

³⁴³ DMA, MKP, 4463/30-1 (17 November 1875).

arrangements helped prevent a reduction in the number of prospective students for the Naval Academy, intensifying the course programme of the Naval High School students and forcing General High School graduates—who received basic military training and were not familiar with the Naval Academy’s advanced naval education—produced unsatisfactory results.

A document dated 20 June 1878 not only confirms this information, but also shows that another school called *Mekteb-i Rüşdiye-i Bahriye* (Naval Junior High School) was opened in Kasımpaşa in order to train students for the General High School.³⁴⁴ According to the statements in the same document, the number and the educational competence of these two schools’ graduates, who had passed the exam to enter the Naval Academy, was still insufficient. While at least 50-60 students were expected to be successful in the entrance examination of the Naval Academy, this number was limited to 18-20 students in the years between 1875 and 1878. This situation led to the low number of officers qualifying for the Navy. Accordingly, the preparatory schools, whose purpose was to train future officers who were capable of properly completing higher naval education, accomplished little except to introduce additional expense for the Navy Treasury. In order to familiarize the high school students with the difficult training in the Naval Academy, it was essential to teach practical training courses and English language at beginner level. For this reason, it was decided the Naval High School should be separated from the General High School and be retransferred to the Naval Academy. In addition to this, the administration of the Naval Junior High School was directly attached to the Ministry of Marine.

³⁴⁴ DMA, ŞUB, 139-32-A (20 June 1878).

In 1883, it was highlighted that there was an inadequacy in the required number of the students at the Naval Academy since the Kasımpaşa Junior Naval High School's graduates, who had achieved exams success, were no more than 15-20 in total. In order to prevent this situation, 20 students of the military junior high school, who had trained as candidates for the Military Academy and Military Engineering schools, would be sent to the Naval Academy every year. However the number of students who entered the Naval Academy between 1875 and 1878 confirms the failure of the students from the Military Academy in the entrance examination, as this number was still fewer than 20. Despite this, the same method was carried out to increase the number of cadets towards the mid-1880s.

According to an official memorandum prepared in 1885 by Stracke Pasha, who was a German expert in the Ottoman Navy, the number of naval preparatory schools ought to be organized like the Military Academy, which had more than one high school. Taking into account the longer time it took for the naval officers to upgrade their ranks in comparison with the army officers, this inequality was to be eliminated. In addition to this, discipline could not be provided in the school as usually the children of the Imperial Naval Arsenal's workers were admitted to the Naval Junior High School. This situation also led families containing high ranking Navy members to seek to avoid sending their children to the same school. The aforementioned reasons combined to result in a reduction in the number of prospective students.³⁴⁵

As can be seen, the matter of training students for the Naval Academy could not be efficiently implemented, even after the reign of Sultan Abdülaziz. While the main objectives of this preparatory education were to familiarize students with the practical

³⁴⁵ Soydemir, 2007: 120-121.

courses and to train officers who would bring to an end to the dependence on foreign experts—both in the Navy and the Imperial Naval Arsenal—the inclusion of Naval High School with the other military schools, combined with its later retransfer to the Naval Academy contributed to the instability of preparatory naval education.

As is known, talented pupils were being chosen among the children of naval officers for the Academy before 1852. With the establishment of the Naval High School, the priority was given to the successful graduates who were admitted to the Naval Academy after being approved by the Medical Office.³⁴⁶ In addition to this, it was decided that the student admission was to be carried out among the graduates of junior high school and children of the officers who were commissioned in the navy with a rank of captain.³⁴⁷ The age limit was specified as 14, which was strictly enforced as shown by an applicant who was refused in 1868 on the grounds that he was too old, at the age of 16.³⁴⁸ Other notable points about the recruitment process included the decision not to force high school graduates to apply for the Academy and the decision to admit students who showed enthusiasm towards naval training. By these means only candidates, who were aware of the school's challenging curriculum and its location in the middle of Marmara Sea and distance from Istanbul's social environment, would be accepted.

A document dated 12 May 1874 shows that drawing of lots was accepted as the method for selecting the departments of the students registered in the school, explaining that a more suitable way could not be found. According to this, in one case a student, who had drawn his lot for Shipbuilding, requested to change his course to the Department of Navy. The majority of the students wished to register for the Department

³⁴⁶ DMA, MKP, 4463-11 (12 May 1874).

³⁴⁷ DMA, MKT, 60-38 (3 November 1864).

³⁴⁸ DMA, MKP, 4463/28-1-2 (30 November 1868).

of Navy as shown by this example, and demand for Shipbuilding and Machinery Departments, which would train architects and engineers for the Imperial Naval Arsenal, was very low. For this reason, it was underlined that changing the total number of registered students in each department according to students' desire was contrary to the regulations and the number of students in the departments should be kept in balance.³⁴⁹ The reason for the lack of students' desire for admission to the Shipbuilding and Machinery Departments can be explained by their more difficult training programme, which required learning a newer technology, mostly from English lecturers. Furthermore, while the students of the Department of Navy spent their last two years in a practice ship, the other departments stayed in Heybeliada for a total of four years.

A document dated 22 September 1875 shows that students, who were living outside of Istanbul, were also included in the recruitment process.³⁵⁰ Some of these were sent to the Ministry of *Zaptiye* (Gendarme) and to the administrative offices of junior high schools in Edirne (Gelibolu-Tekfurdağı), Manastır (Ülgün), Cezayir-i Bahr-i Sefid (Bozcaada, Limni, Midilli, Sakız, Rodos), Kıbrıs, Girid, Aydın (Kuşadası), Konya (Antalya), Kastamonu (Sinop, Bartın, Ereğli), Trabzon (Trabzon, Giresun), Canik (Samsun, Ünye), Suriye (Trablusşam, Beyrut, Akka, Sayda), Trablusgarp (Trablusgarp, Bingazi), and Bağdad provinces. Accordingly, it was stated that junior high school graduates from these coastal provinces of the Empire were deprived of their right to apply the Naval Academy, as the agreed amount of students had been provided each year from Istanbul until 1875. As their families mostly gained their livelihood from seafaring, admission of these students would be beneficial.

³⁴⁹ DMA, MKP, 4463-11 (12 May 1874).

³⁵⁰ BOA, MF.MKT, 31-164 (22 September 1875).

For this reason, it was decided that 14-15 year old volunteer graduates were to present themselves at Istanbul at the beginning of June every year in order to take the entrance examination of the Naval High School. After the announcement of the results, the unsuccessful applicants would be sent to the Kasımpaşa Naval Junior High School and would also be joined to the naval industry troops for a period of one year. At the end of the year, they would take the entrance exam again. If they failed for the second time, some who volunteered would be registered in *haddad* (blacksmith) classes and the others would be allowed to return their hometowns.

Izmid was added to those provinces one year after in another document and it was requested that the previous students of these junior high schools, who wished to take the entrance examination of the Naval Academy, should not be kept waiting for the final exams as they needed to be in Istanbul by June. This latter group should take the exams immediately after their graduation and be sent to Istanbul by the province that they came from.³⁵¹ As is seen, the student admission system was rolled out beyond Istanbul to the above mentioned coastal provinces by the end of the reign of Sultan Abdülaziz. Despite the lack of interest among prospective students and a low number of graduates, who were expected to be commissioned in the Imperial Naval Arsenal, student enrolment without participating in the entrance exams was strictly prohibited. This might be the most important evidence of the positive results obtained from the reforms in naval training carried out in this period.

³⁵¹ BOA, MF.MKT, 41-19 (17 August 1876).

Length of Education

As has been mentioned before, the changes carried out to strengthen the new educational system negatively affected the stability of the period of training, and the courses to be taught in the Naval Academy. The length of naval training was a period of four years for the Departments of Navy and Shipbuilding in the reign of Sultan Abdülaziz, and a new department called Machinery was established to train machinery engineers. In fact, it was stated in a document dated 19 July 1863 that a new curriculum was prepared on the grounds that the old one was inadequate, as the textbooks utilized in technical courses had become out-of-date. According to the new list of the courses prepared for the Navy, Shipbuilding, and Machinery Departments, each of them was divided into four classes.³⁵² Another document, which was sent to the Ministry of Marine on 25 July 1873 with the purpose of raising the number of students of the Naval Academy so as to train more officers for the Imperial Naval Arsenal and the Navy, confirms this classification.³⁵³ Further to this, a commission was established to teach the courses with a better format on 20 April 1875 and according to its report, the training period was extended for one year as the former period of study was considered to be insufficient when the content of courses included in the revised curriculum was taken into account.³⁵⁴ Accordingly, the theoretical training of the students in the Department of Navy would be increased from two years to three years, and they would be sent to a training ship with the title of sub-lieutenant, like the students of the Military Academy.

³⁵² DMA, ŞUB, 1865, 79-80 (19 July 1863); DMA, MKT, 52-5 (19 July 1863).

³⁵³ BOA, İ.MMS, 46-1982 (25 July 1873).

³⁵⁴ BOA, İ.MMS, 52-2262 (20 April 1875); BOA, A.MKT.MHM, 478-33 (26 May 1875); DMA, MKP, 4463/07-2-2 (17 June 1875); DMA, MKP, 4463/34/1-5 (18 May 1876); DMA, MKT, 6021-6-6 (30 May 1875).

After two years of practical training, successful graduates would be commissioned in the various units of the Navy with the title of lieutenant. The training period of the Machinery and Shipbuilding Departments would also be extended from three to four years and the students would gain the rank of sub-lieutenant at the end of three years due to the more difficult nature of the courses, in comparison with the Department of Navy. After spending one more year in the Academy, they would be sent to the Imperial Naval Arsenal with the rank of lieutenant. However, the aforementioned two documents dated 1863 and 1873 confirm the period of study of these two departments as four years. In this case, one might claim that it was lowered to three years between 1873 and 1875 but an archival document establishing this assumption could not be found. In addition to this, the number of classes included in the Department of Navy was recorded as four in the exam lists of the Naval Academy in 1875 and any information relating to the fifth year was missing.

Although these points might give an impression that the proposal of the Naval Commission was refused by the Ministry, three archival documents preserved in the Istanbul Naval Museum Commandership Archive prove the opposite. Thus the first document dated 17 June 1875 reveals that the length of theoretical study for the Department of Navy was upgraded to three years with the acceptance of new regulations. Because of this reason the students, who finished their second year, should not be sent to the training ship.³⁵⁵ In other documents dated October 1875 and December 1875, it is stated that the fourth year students of the Navy, Machinery and Shipbuilding Departments were given the rank of sub-lieutenant after completing three years of theoretical training.³⁵⁶ However, this new system remained in force only for

³⁵⁵ DMA, MKP, 4463-7-2 (17 June 1875)

³⁵⁶ DMA, MKP, 4463-10-2-1 (11 October 1875); DMA, MKP, 4463-31-3 (19 December 1875)

one year and the Ministry decided to revert back to the previous in 1876. Accordingly it was decided on 18 May 1876 that graduates of the Senior High School had to learn the same topics during the length of training for the Department of Navy, which had been extended to nine years in total in 1875 with the additional year for theoretical training in the Naval Academy. For this reason, the period of study was decreased to four years again for this department.³⁵⁷ In addition, it was decided that the theoretical training would continue to be three years only for the current students, who needed to take their last two years' lectures in one year due to the reduction in the length of theoretical study. For the prospective students, two years of theoretical training with the new curriculum was approved. By this way, it was aimed that all the registered students to be commissioned in a training ship for practical training after the successful completion of the first two years of study. In this way, the length of training was revised once again and it remained at eight years until the end of the reign of Sultan Abdülaziz.

Student Quotas

Towards the middle of the 1860s, the Ministry of Marine made an attempt to increase the number of students enrolled in the Naval Academy. Accordingly, while the total number of the students registered for the Senior High School and the Naval Academy was 180 in 1855, this figure went up to 260 in 1869 and reached 303 in 1870, consisting of 183 high school students, 104 students in the Department of Navy, and eight students each in the other departments.³⁵⁸ According to these documents, the total number of the first grades (final year students) of the Navy, Machinery and, Shipbuilding Departments

³⁵⁷ DMA, MKP, 4463-34-1-3 (18 May 1876); DMA, MKP, 4463-32-2 (May 1876); BOA, İ.DH, 733-60062 (28 September 1876).

³⁵⁸ Sayaci, 236-238.

were 13, three and one respectively in 1869 and 25, three and two in 1870. Assuming that all the students successfully graduated, it can be confidently said that the school did not meet the expectation for the targeted number of qualified personnel.³⁵⁹ In fact, it was decided in July 1873 to increase the number of students from 296 to 368 with the additional 72 students enrolled in order to raise the number of graduates of the Department of Navy up to 40, and to four each for the Machinery and Shipbuilding Departments.³⁶⁰ According to this, while the quota of high school students reached 192, the quotas of each class in the Navy, Machinery, and Shipbuilding Departments were determined as 40, two and two respectively. Table 10 illustrates the total number of students of the Department of Navy, which was the most preferred field of study among the graduates of Senior High School, between 1869 and 1876.³⁶¹

Table 10. The Total Number of Students of the Department of Navy between 1869 and 1876

Classes	1869	1870	1871	1872	1873	1875	1875	1876
4	30	37	27	34	37	43	42	40
3	29	31	33	34	34	35	41	33
2	30	22	22	30	33	34	35	33
1	17	30	30	22	52	33	34	26
Total Number of Students	106	120	112	120	156	145	152	132

When the table is analysed, it can be seen that the quotas were increased approximately 24% between 1869 and 1876. These figures confirm that the offer to raise the student quotas was approved by the Ministry of Marine and the specified quota for the fourth grade had reached around 40 towards the end of the reign of Sultan

³⁵⁹ Although the main purpose was to increase the number of registered students and graduates, practices contrary to the regulation of student admission were avoided. Thus the application of Mehmet Efendi, who wanted to be registered in the Department of Navy on 30 November 1868, was rejected due to the age limit which appeared as 14 in the same document (DMA, MKT, 4463-28-1-2 (30 November 1868).

³⁶⁰ BOA, İ.MMS, 46-1982 (25 July 1873); DMA, MKT, 174-89 (14 July 1873); BOA, A.MKT.MHM, 459-64 (25 July 1873); DMA, MKT, 181-123 (22 August 1873).

³⁶¹ Sayaci, 233.

Abdülaziz. As previously highlighted, the admission regulations were stringently enforced: the application of Cemal Efendi to be a student of the Department of Navy was refused on the grounds that the quotas of each department were limited by the Ministry of Marine and had reached full capacity in 1875.³⁶² However, it is clear that these arrangements did not result in a considerable increase in the number of final year students. Corresponding with this, the total number of the Department of Navy pupils decreased from 132 to 51 between 1876 and 1877 and this number did not reach 100 again until the beginning of the 1890s. The main reason for the remarkable decrease of 61% in the decade prior to 1877 can be explained with the announcement of the treasury insolvency in the end of the reign of Sultan Abdülaziz, combined with his successor Sultan Abdülhamid II's decision to reduce the budget allocated for the naval affairs. Indeed, the applications to increase the number of the students and lectures in terms of quality and quantity, and to purchase the textbooks and the necessary equipment mostly from Europe required a larger budget than what Sultan Abdülhamid II was intending to allocate. Upon the failure to produce the required results after these amounts of expenditures, and because of the forthcoming Russian threat, Sultan Abdülhamid II preferred to concentrate on the land army. This situation caused the navy to remain a secondary priority for state planning and expenditure for the remainder of the century.

Education and the Curriculum

When courses that were taught in the Academy are examined, it can be seen that the curriculum was expanded to a great extent from the middle to the last quarter of the nineteenth century. As is seen the length of the education and the student quotas, the

³⁶² DMA, MKP, 4463-3-2-1 (24 March 1875).

curriculum was also subjected to many changes. The inadequate number of lecturers, coupled with a lack of translated textbooks caused fundamental problems in the successful deliverance of naval training. Courses offered until the beginning of the reign of Sultan Abdülaziz included mathematics, geometry, algebra, technical drawing, navigation, mechanics, physics, French, Arabic, and English.

To analyse the aspects of the new education system and the expansion of the technical expertise, it is essential to scrutinize the courses taught in the Naval Academy. In order to achieve a better understanding, we will compare the curriculums of the Naval Academy in the years of 1863, 1875, and 1876 in this section. This archival information, which we found in the Istanbul Naval Commandership Archive and the Prime Ministerial Ottoman Archive, bears considerable importance as it includes original records kept by the Ministry of Marine. Accordingly, in a document dated 19 July 1863, it is stated that a naval commission was established in order to modernize the naval training as the current course programme and the textbooks were out-of-date. Table 11 and Table 12 illustrate the new curriculums of the Naval High School and the Naval Academy's departments presented by this commission in the same document.³⁶³

Table 11. The Curriculum of the Naval High School in 1863

Name of the Class	Name of the Courses
First Year	Arabic Verbs, Arabic Grammar, Religious Principles, Reading, Calligraphy
Second Year	Arabic Grammar, Mathematics, Principles of Persian, Writing and Spelling
Third Year	Method of Reading the Quran, Algebra, Shipbuilding, History, Method of Writing in <i>Rika</i> , Pencil Drawing

³⁶³ DMA, ŞUB, 1865-79-80 (19 July 1863).

Table 12. The Curriculum of the Naval Academy in 1863

Department	Name of the Course			
	First Year	Second Year	Third Year	Fourth Year
The Department of Navy	Geography	Spherical and Plane Trigonometry	Astronomy	Cosmography and Navigation
	Method of Geometry and its Practice	English Verbs and Grammar	Mechanics and Conical Calculation	Translation Method in English
	Physics	Chemistry	Translation Historical Texts in English	Gunnery and its Practice
	English Alphabet, Grammar and Expression	Rigging Practice	Landscape and Mathematics	Cartography
	Rigging Practice	Method of Coloration	Topography and Watercolour painting	Rigging Practice
	Pencil Drawing		Rigging Practice	Method of Using Oil Painting
	First Year	Second Year	Third Year	Fourth Year
The Department of Mechanical Engineering	Spherical and Plane Trigonometry	Definition of Machinery	Mathematics of Machinery	Mechanics
	Chemistry	Method for Drawing Machinery	Method for Drawing Machinery	Mathematics of Machinery
	English Verbs and Grammar	Translation and Speaking in English	Conical Calculation	Method for Drawing Machinery
	Principles of Machinery	Geometry	Translation and Speaking in English	Translation and Speaking in English
	Method of Using Watercolour Painting	Differential Mathematics and Integral	Method of Using Oil Painting	Method of Using Oil Painting
		Method of Using Watercolour Painting		
	First Year	Second Year	Third Year	Fourth Year
The Department of Shipbuilding	Spherical and Plane Trigonometry	Conical Calculation	Mathematics of Shipbuilding	Mathematics of Shipbuilding
	Chemistry	Differential Mathematics and Integral	Differential Mathematics and Integral	Differential Mathematics and Integral
	English Verbs and Grammar	Shipbuilding	Method for Drawing Ship and Mechanics of Ship	Method for Drawing Ship and Mechanics of Ship

	Principles of Shipbuilding	Translation and Speaking in English	Mechanics	Translation and Speaking in English
	Method of Coloration	Geometry	Translation and Speaking in English	Method of Using Oil Painting
		Method of Coloration	Method of Using Oil Painting	

It can be immediately seen from the tables that high school education intensified, mainly to develop the reading, writing skills, and the religious knowledge of the pupils starting from the beginning of 1860s. One would have expected that English would serve as the primary foreign language in the syllabus of the Naval High School, considering the fact that the technical courses of the Naval Academy were mostly given by British lecturers and the greater part of the textbooks were originated from Britain. In actual fact however, greatest importance was attached to the learning of Arabic and Persian grammar, and English was not included in the course programme. Besides the exclusion of practical training, mathematics, algebra, and shipbuilding courses were taught only in the last year of the Naval High School as introductory modules. Although this implementation may be seen as a right decision to prepare students for an advanced technical training, the technical courses included in the curriculum of the Naval Academy—such as spherical and plane trigonometry, differential mathematics and integral, conical calculation, geometry, astronomy, mathematics of machinery, and mathematics of shipbuilding—specifically indicate a concentration in the curriculum on mathematics. For this reason, it is quite irrational to expect a high school graduate, who was given only basic mathematics in his last year, to pass these courses successfully, which required students to possess sound knowledge of advanced mathematical processes in a relatively short time. These factors appear as the most remarkable deficiencies of the preparatory education in 1863.

It would be useful to recall that the courses constituting the last two years' curriculum of the Department of Navy were being taught in the training ship. In spite of providing cadets a chance to practise what they learned from the theoretical aspects of the courses, carrying out this relatively late practical training together with the theoretical courses continuing with the same intensity cannot be considered as a good decision. Furthermore, practical courses were not included for either the Machinery or the Shipbuilding Departments. As can be seen from the tables, these students, who were to be commissioned in the factories of the Imperial Naval Arsenal as shipbuilding engineers and architects, were graduated without being provided practical courses during their four years of theoretical training. Instead of this application, the training of Machinery and Shipbuilding Departments should have been carried out at the premises of the Imperial Naval Arsenal itself. In doing so, the education of these three different areas would have been given in balance, and at the same time. For this reason, the decision to keep all the students in Heybeliada and to remove shipbuilding and machinery education from the Imperial Naval Arsenal should be taken into account as another reason of the observed failure in the modernization of the naval education in this period.

During the 16-year reign of Sultan Abdülaziz, while the number of students registered for the Department of Navy was around 35, the quotas for the other two departments were not over three students. This shows that student quotas were not considered when the course programmes were arranged by the Naval Commission, as the curriculums of Machinery and Shipbuilding Departments included mostly the same courses. Retrospectively, it seems it would have been more beneficial to combine their mutual modules in one single department to save time and to reduce costs.

On 13 July 1866, the Kapudan Pasha visited the Naval Academy to review the content of lectures and the level of students. He participated in the modules regarding shipbuilding, navigation, machinery, and English. In his speech addressing the Sultan's contribution to the modernization of the Ottoman Navy, he emphasised that the successful accomplishment of the naval reforms was fully dependent on the proficiency of students in their area of study. He also stated that cadets would be responsible not only for the security of life and property of the personnel, but also the effective operation of the warships and the proper usage of the naval equipment following their graduation.³⁶⁴

In August 1875, the deficiencies of the preparatory education must have been recognized as the syllabus was revised and made more applicable. Table 13 and Table 14 show the exam result charts of the Naval Academy, which we found in the *Mektepler* Catalogue preserved in the Istanbul Naval Commandership Archive.³⁶⁵

Table 13. The Curriculum of the Naval High School in 1875

Name of the Class	Name of the Courses
Preparatory Year	Reading, Religious Principles, Calligraphy, Spelling, Arabic Alphabet, Mathematics, Turkish Alphabet, Practicing in Persian, Painting.
First Year	Method of Geometry, Introduction to Algebra, Method of Spelling, General History, English, Painting.
Second Year	Method of Geometry, Algebra, Ottoman History, English, Clerkship, Science of Perspective, Painting.
Third Year	Plane Trigonometry, Conical Calculation, Mechanics, English, Method of Clerkship, Method of Coloration, Cartography.
Fourth Year	Geometry, Spherical Trigonometry, Physics, Chemistry, Hygiene, Cartography, English, Clerkship, Rifle Drill.

³⁶⁴ *Ceride-i Askeriye*, 'Mevadd-ı Bahriye', 132, 28 July 1866.

³⁶⁵ DMA, MKP, 4464-2-10 (August 1875).

Table 14. The Curriculum of the Naval Academy in 1875

Department	Name of the Course	
The Department of Navy	Second Year	First Year
	Nautical Astronomy	Navigation
	Science of Gunnery	Astronomy
	Navigation	Science of Gunnery
	Science of Naval War	Definition of Rigging
	International Law	Natural Geography
	Science of Torpedo	Prize Law
	Nautical Cartography	Principles of Shipbuilding
	English	Definition of Machinery
	Sword Drill	English
		Sword Drill
The Department of Mechanical Engineering and The Department of Shipbuilding	Second Year	First Year
	Science of Machinery and Shipbuilding	Introduction to Astronomy
	Drawing of Machinery and Shipbuilding	Definition of Rigging
	Differential Calculus	Principles of Shipbuilding
	International Law	Definition of Machinery
	English	Drawing of Machinery and Shipbuilding
	Sword Drill	English
		Sword Drill

In 1875, English was added into the curriculum of the Naval High School from the first year and profession-specified modules continued to be taught at the introductory level. Although this new programme seems ideal for the purpose of preparing pupils for an advanced mathematical training, giving the same subject repeatedly for many years had a negative impact on student performance. When it is compared with the syllabuses of 1863, which had not included the newly introduced courses—such as those in prize law and international law—one can see the improvement as these two new modules helped students to improve their personal skills,

including building their abilities in judgement and strategic insight. The students of the Machinery and Shipbuilding Departments were in the same exam result chart. Even though this confirms that the modules of these departments were integrated after 1875, this highly advanced course program still did not have a practical training course.

As previously mentioned, a new curriculum was prepared after the decision made to decrease the length of education from five to four years in 1876. To avoid the current students being affected negatively from these new adjustments, the existing course programme was continued until their graduation, and the new curriculum was put into action for the prospective students. Because of this reason, the courses prior to the training ship were arranged as three years for existing students and two years for new students. Table 15 and Table 16 illustrate these programmes and the point scoring system required to pass the modules successfully.³⁶⁶

Table 15. The Current Curriculum of the Naval Academy in 1876

Name of the Class	Name of the Courses	Total Grade to Pass
Department of Navy (First, Second and Third Year)	Theories of Spherical Trigonometry and Its Practice (60) Mechanics (60), Astronomy (60) Navigation and the Usage of Compass (90) Nautical Astronomy and the Usage of Observation Equipment (180) The Usage of Chronometry (30) Method of Nautical Cartography (30) Science of Navigation and its Practice in the Training Ship (120), Science of gunnery included gunpowder, military cartridge and gunnery shooting (120), Torpedo (30) Science of Navigation (30) Principles of Navigation (30) Shade lining in the Practice of Geometry (30) Dispatching soldiers to the Land (30)	1515

³⁶⁶ DMA, MKP, 4463-34-1-5 (18 May 1876); BOA, İ.DH, 733-60062 (27 August 1876).

	<p>Natural Geography included the maps of main currents, magnet, wind and temperature (30)</p> <p>Principles of Machinery (30), Principles of Shipbuilding (30)</p> <p>Method of Clerkship (90), General History (60)</p> <p>English included naval history and translation (270)</p> <p>Cartography (30), Military Hygiene (15)</p> <p>Machine Gun Practice (60)</p> <p>Swimming Drill (00), Sword Drill (00).</p>	
<p>Department of Machinery (First to Fourth Year)</p>	<p>Theories of Spherical Trigonometry and Its Practice (30)</p> <p>Algebra (30), Geometry (90)</p> <p>Differential Mathematics and Integral (120)</p> <p>Mechanics of Solids (75), Mechanics of Liquids (75)</p> <p>Mechanics of Gases (30), Imposition Force of Objects (30)</p> <p>Trigonometry (30), English (360)</p> <p>Method of Clerkship (120), General History (90)</p> <p>Principles of Machinery (30), Principles of Shipbuilding (30)</p> <p>Science of Machinery (60), Science of Shipbuilding (60)</p> <p>Mathematics of Machinery (180), Drawing of Machinery (800).</p>	<p>2240</p>
<p>Department of Shipbuilding (First to Fourth Year)</p>	<p>Theories of Spherical Trigonometry and Its Practice (30)</p> <p>Algebra (30), Geometry (90)</p> <p>Differential Mathematics and Integral (120)</p> <p>Mechanics of Solids (75), Mechanics of Liquids (75)</p> <p>Mechanics of Gases (30), Imposition Force of Objects (30)</p> <p>Trigonometry (30), English (360)</p> <p>Method of Clerkship (120), General History (90)</p> <p>Principles of Machinery (30), Principles of Shipbuilding (30)</p> <p>Science of Machinery (60), Science of Shipbuilding (60)</p> <p>Mathematics of Shipbuilding (180), Drawing of Shipbuilding (800).</p>	<p>2240</p>

Table 16. The New Curriculum of the Naval Academy accepted from August 1876

Name of the Class	Name of the Courses	Total Grade to Pass
Department of Navy (First and Second Year)	Nautical Astronomy and the Usage of Observation Equipment (120) Nautical Mapping and the Usage of Chronometry (30) Science of Naval War (30), Science of Gunnery (60) Science of Navigation (60), Principles of Navigation (30) Dispatching soldiers to the Land (30) Torpedo (30), English (210) Spherical Trigonometry (60), Mechanics (30) Principles of Shipbuilding (30), Principles of Machinery (30) Navigation and the Usage of Compass (90) Natural Geography (30), Cartography (30) Military Hygiene (30), Machine Gun Practice (60) Swimming Drill (00), Sword Drill (00).	990
Department of Machinery (First to Fourth Year)	Theories of Spherical Trigonometry and Its Practice (30) Algebra (30), Geometry (90) Differential Mathematics and Integral (120) Mechanics of Solids (75), Mechanics of Liquids (30) Mechanics of Gases (30), Imposition Force of Objects (30) Trigonometry (30), English (360) Principles of Machinery (30), Principles of Shipbuilding (30) Science of Machinery (60), Science of Shipbuilding (60) Mathematics of Machinery (180), Drawing of Machinery (800).	2030
Department of Shipbuilding (First to Fourth Year)	Theories of Spherical Trigonometry and Its Practice (30) Algebra (30), Geometry (90) Differential Mathematics and Integral (120) Mechanics of Solids (75), Mechanics of Liquids (75) Mechanics of Gases (30), Imposition Force of Objects (30) Trigonometry (30), English (360) Principles of Machinery (30), Principles of Shipbuilding (30) Science of Machinery (60), Science of Shipbuilding (60) Mathematics of Shipbuilding (180), Drawing of Shipbuilding (800).	2030

The combination of courses such as astronomy and cartography and the removal of mechanics, shade lining, method of clerkship, and general history courses from the existing programme were the most considerable changes made for the Department of Navy. In the syllabi of Machinery and Shipbuilding Departments, method of clerkship and general history modules were excluded. In addition to this, the total grade to pass from the modules was reduced from 1515 to 990 for the Department of Navy and from 2240 to 2030 in the other sections. The main purpose of this arrangement was to increase the number of graduates to be sent to the Navy and the Imperial Naval Arsenal by making the method of passing the modules easier. The introduction of this wide gap between the passing grades for the navy in comparison with the other departments appears to be another mistake. Increasing the number of naval engineers and architects should have been recognized as the main goal of the modernization to reduce the Ottoman naval industry's dependency on the West. However, high graduation requirements prevented the achievement of the targeted number of graduates.

When the passing grades are compared for each department, the modules that required the highest grade are stipulated as English, nautical astronomy and the usage of observation equipment, and navigation and the usage of compass for the Department of Navy. The most important courses of the other departments were drawing of machinery/shipbuilding, English, mathematics of machinery/shipbuilding and differential mathematics, and integral calculus respectively.

When the syllabus implemented for the Royal Navy in the same period is examined, it can be said that it was quite similar to the course programme of the Ottoman Naval Academy. Indeed, the Royal Naval College of the British Navy was

transferred from Portsmouth to Greenwich and the following curriculum was constituted in 1873:³⁶⁷

- *Pure Mathematics included geometry and calculus*
- *Applied mathematics included mechanics, optics and theories of heat, light, electricity, and magnetism*
- *Applied mechanics, theories of structures, and machines*
- *Nautical astronomy, surveying, meteorology, and chart-drawing*
- *Experimental science, physics, chemistry, metallurgy*
- *Marine engineering, naval architecture*
- *Fortification, military drawing, and naval artillery*
- *International law, law of evidence, and naval courts martial*
- *Naval history and tactics, included naval signals and steam evolutions.*
- *Modern languages, drawing, hygiene, naval, and climatic.*

While 1500 points was enough to graduate from the College, it was compulsory to collect a total of 500 points from algebra, geometry, and trigonometry courses and 400 points for the modules regarding navigation and nautical astronomy. This application created some problems for the British Royal Navy on the basis of keeping the number of students balanced, as was also the case in the Ottoman Navy. In fact, the total number of cadets decreased from 237 to 180 towards the beginning of 1880s due to the intensity of the technical courses.³⁶⁸

The considerable similarity between two different countries' naval education suggests that the newly prepared curriculums of the Ottoman Naval Academy was

³⁶⁷ Lambert, 2006: 43-44.

³⁶⁸ Lambert, 2006: 44.

adopted from Britain. Indeed, new teaching procedures were arranged under the supervision of British experts, like Woods Pasha, and Ottoman bureaucrats, who received their education in Britain, like Eğinli Mehmet Sait Pasha, along with textbooks and other course materials that were mostly purchased from the same country. In addition to this, the total grade to pass was similar for both the British and Ottoman Naval Academies, which appeared as 1515 in the new curriculum of Ottoman Naval Academy implemented in 1876 and 1500 for the British Naval College in 1873. This confirms that British naval training methods were taken as a model to modernize the Ottomans naval education. It also explains the system established to qualify for graduation from the Ottoman Naval Academy, which was based on scoring the required number of points from each module. However, the preparatory naval education in Britain was being provided in a training ship and advanced technical courses were made optional for the officers registered in the Royal Naval College.³⁶⁹ For this reason, copying a developed naval education system without considering the practical training and the level of students being admitted resulted in the Ottomans' attempts to modernize naval education being unsuccessful.

Practical Training

As mentioned in the previous section, the final two years of education for the Department of Navy in the Naval Academy was allocated for the practical training in the school ship. Specifically, application of the courses related to navigation and gunnery practice, which was being taught from a theoretical perspective in the first two years of the same department, was of great importance. So much so, it was decided in

³⁶⁹ Winton, 1995: 269.

1847 that the students were to be sent to the training ship accompanied by naval instructors. After cruising in the Mediterranean for a while, their route would be set to France and Britain. In preparation for this, Müşavir Pasha released an official memorandum in 1851, indicating the assignment of the *Peyk-i Zafer*³⁷⁰ as the Naval Academy's training ship.³⁷¹

In the beginning of Sultan Abdülaziz's reign, a brig class ship called *Nüvid-i Fütuh*³⁷² was assigned as the training ship, considering the need of the students for practical education. As is understood from the same document, there was another training ship anchored at Heybeliada. However, the training carried out with this ship was not adequate and the students sailed to Marmara Sea together with the naval instructors in *Nüvid-i Fütuh*, which was repaired and equipped for its new task.³⁷³ On 12 November 1864, it was stated that the ship, which had been cruising in the Marmara Sea for the practical training of cadets from May, was sent to the Imperial Naval Arsenal as the students returned to the Naval Academy for the oncoming winter.³⁷⁴ In this period, the training carried out in the harbour training ships like *Nüvid-i Fütuh* should be regarded only as a supplementary part of the theoretical education, as the area of application for the modules related to navigation and observation was limited to the Marmara Sea, particularly around Heybeliada, which was not sufficient for the cadets who would be appointed in seagoing warships after their graduation.

This inadequacy in the practical part of officers' training was recognized after the foundation of the Ministry of Marine and the Naval Reforms Commission, and an

³⁷⁰ She was built in Sinop and launched in 1841. In 1856, she was sent to be fitted with steam engine in Portsmouth and decommissioned in 1878 (Langensiepen and Gülerüz, 1995: 142).

³⁷¹ Soydemir, 2007: 61.

³⁷² Being constructed in the Imperial Naval Arsenal, she was launched in 1842 (Düzcü, 2012: 82).

³⁷³ *Ceride-i Askeriye*, 'Mevadd-ı Bahriye', 20, 28 May 1864.

³⁷⁴ *Ceride-i Askeriye*, 'Mevadd-ı Bahriye', 43, 12 November 1864.

increase in the content of the practical training was provided, making it roughly parallel in content with the theoretical education. Application was mainly focused on the courses which included commanding and manoeuvring of the ship and gunnery practice. For teaching of these modules, it was decided by the naval board to employ a captain, a lieutenant, two gunners, and a navigation instructor from the Royal Navy with an appropriate salary for four years. In addition to this, a language teacher was requested from the same institution for the English lectures.³⁷⁵

According to our archival research carried out in the National Archives of Britain, this request was approved by the British Admiralty Board on 21 May 1869, as it was written in the same document that a captain, two gunners, and an instructor would be chosen to send to Istanbul, and Admiral Sydney Dacres would be informed after the selection was completed.³⁷⁶ On 29 September 1869, the Board of Admiralty decided to send five naval instructors with a £600 annual salary and five first class gunners, who were to receive £250 per annum, to the Ottoman Navy.³⁷⁷ A short time later, Henry Felix Woods' request to enter the service of the Ottoman Navy was confirmed, stating that he would be offered an annual salary of £500 by the Ottoman Government.³⁷⁸ Although the reason for the change in the number of the officers to be assigned to the Ottoman Naval forces was not stated in the document, the simultaneous request of Henry Woods might have influenced this decision as it would not be necessary anymore to choose another captain after his application. Another document dated 12 October

³⁷⁵ DMA, MKT, 75-166 (1 April 1869).

³⁷⁶ TNA, PRO, ADM 12-820 (21 May 1869).

³⁷⁷ TNA, PRO, ADM 12-820 (29 September 1869).

³⁷⁸ TNA, PRO, ADM 12-820 (9 Nov 1869).

1869 shows that these officers would be selected among the personnel of the Royal Navy's gunnery training ship, named *HMS Excellent*.³⁷⁹

In parallel with the instatement of Woods Pasha and, later, the appointment of Hobart Pasha for the presidency of the Naval Reform Commission, we see that the practical training was also made compliant with the methods carried out in the Royal Navy, like the theoretical education by the increasing number of British officers commissioned in the Ottoman Navy. The proper application of the practical training specifically arranged for the Department of Navy was also transformed into a more systematic framework in 1870.³⁸⁰ As indicated by archival documents, from this date forward, practical training of pupils consisted of two phases. In the first stage, cadets, who had successfully completed the first and second grade of the theoretical education in the Department of Navy, were sent to a harbour training ship for the preparatory training on board for a period of three months. At the end of this period, they were subjected to an examination process and afterwards the second phase of the practical training was started in a seagoing training vessel for a period of two years.

First Phase of the Practical Training

In accordance with the new system, a ship-of-the line called *Fethiye*³⁸¹ was appointed on 2 March 1870 as the preparatory training ship for the students of the Department of Navy and also for the marines, who had been recruited according to the conscription law.³⁸² According to the instructions sent to the ship's captain, Mustafa Bey, by the

³⁷⁹ TNA, PRO, ADM 12-820 (12 October 1869).

³⁸⁰ This can also be observed in the School's curriculum as it was prepared as four years until 1870s and afterwards a division in the course programme was appeared in the curriculum of the Department of Navy which was prepared separately for the first two years and the last two years.

³⁸¹ Following the completion of her construction in the Imperial Naval Arsenal in 1853, she was commissioned in the Ottoman navy in 1858 and sent to Plymouth to be fitted with the machinery in 1859. She remained in the service of the Ottoman navy until 1911 (Langensiepen and Güleriyüz, 1995: 142).

³⁸² DMA, ŞUB, 53B-50B (2 March 1870); Vak'a-nüvis Ahmed Lütü Efendi, vol. 12, 1989: 112.

naval board, the main responsibility of the officers was determined as the supervision of the training of cadets and marines in addition to keeping the ship in optimum condition.

³⁸³ To carry out this task, a team of instructors and marines were ordered to accompany the captain, and they were divided into two groups according to the tasks related to cleaning and maintenance of the ship and the training of students and marines. The table below includes detailed information on the number of officials and their ranks which composes of the crew in company with the captain.³⁸⁴

Table 17. The Crew of *Fethiye* for the Preparatory Training of Cadets and Marines in 1870

Ship's Crew for the duties related to cleaning and maintenance		Ship's crew for the duties related to training		
Numb er	Rank of the Personnel	Numb er	Rank of the Personnel	Content of Training
1	Lieutenant Commander	1	British instructor	For Gunnery Training
1	Imam	1	Major Colonel	
1	<i>Sağ Kolağası</i> (Major Colonel)	1	Major Colonel	
2	<i>Sol Kolağası</i> (Major Colonel-one as munition keeper)	2	Lieutenant	
4	Lieutenant (one as munition keeper)	1	Sub-Lieutenant	
3	Sub-Lieutenant	10	Gunner	
1	Ship-of-the Line Scribe	10	Boatswain	
1	Frigate Scribe	5	Chief Helmsman	
1	Brig Scribe	5	Petty Officer	
1	Doctor	1	Lieutenant	For Musket Drill
1	Surgeon	1	Sub-Lieutenant	
1	Pharmacist	6	Petty Officer	
150	Marines	5	Bölük Emni ³⁸⁵	For other instructions
3	Marine Corps (carpenter, caulker and <i>çakmakçı</i> ³⁸⁶)	2	Trumpet instructor	
---	---	2	Bugle instructor	
---	---	2	Call instructor	
Total Number of Personnel: 171		Total Number of Personnel: 55		

³⁸³ DMA, ŞUB, 53B-50B (2 March 1870).

³⁸⁴ DMA, ŞUB, 53B-50B (2 March 1870).

³⁸⁵ In warships, marines were divided as groups called *bölük* and *bölük emini* was responsible to supervise the division that he was appointed to with the rank of lieutenant (Nutki, 2011: 38).

³⁸⁶ Workers included in the *çakmakçı* class were responsible for the maintenance and repair of the small arms such as musket (Nutki, 2011: 49).

As is seen, the crew consisted of a total 226 attendants, not counting the captain, cadets, and new recruits. Unlike the other training provided on board, exams related to gunnery practice were applied by a commission consisting of officers from the navy and new recruits were selected as 30, ten and five marines from ship-of-the lines-frigates, corvettes, and other smaller vessels to be sent to *Fethiye* in order to provide continuity in the training of the naval service.³⁸⁷

The method of training for both cadets and marines consisted of exercises regarding the usage of cannonball, musket, sword, compass, machinery, signal rocket, and accurate targeting. In addition to wall knot, non-slip knot, and sewing, drills including fire and dispatching soldiers to the land via using boats in case of an action were also included in the training programme. Furthermore, an introduction to navigation was considered necessary for the naval cadets to be included in the training of *Fethiye*, and it was recorded in the same document that an instructor was requested for the Naval Academy for this purpose. In gunnery practices, officers, and students were given the right to a total of ten basic cannon shots, and also one for the newly invented signal rockets and guns while the marines had the right to target practice a total of seven times with cannon balls, and two times with the newly arrived muskets. For all classes, it was compulsory to practise with guns and muskets unloaded once and twice a month respectively, and drills regarding attack to the land via boats were carried out once a month in a specially arranged area so as not to disturb the locals.³⁸⁸

To prevent interruptions in the preparatory practical training, the captain of *Fethiye* was acquainted with the measures taken by the Ministry of Marine. Accordingly, a logbook regarding the level and competence of the students and marines

³⁸⁷ DMA, ŞUB, 53B-50B (2 March 1870).

³⁸⁸ DMA, ŞUB, 53B-51A (2 March 1870).

would be prepared each month to be sent to the Naval Reforms Commission. Every Thursday afternoon was allocated for the cleaning of the ship and the captain was responsible for monitoring the hygiene and cleanliness of the crew's uniforms and tarpaulins. Friday was determined as the holiday for the students and marines, who would not be allowed to leave the ship until late afternoon, and latecomers' names would be notified to the Naval Reforms Commission. In addition to this, all required tools and materials would be sent from the storehouses of the navy and officers, to those who had been already commissioned in warships but still wanted to participate in some exercises. They would have full permission to join the training exercises of *Fethiye*.

As is understood, *Fethiye* was arranged mainly for the initial entry training of the marines and a quota was allocated for the third grade students of the Department of Navy as orientation training, which aimed to make them familiar with the naval equipment and armaments before their intense practical training in the seagoing vessel. Through this measure, it was expected they would become accustomed to the discipline on board, and their adaptation to naval life would be smoother, leading to a possible increase in their performance. As we did not find any archival evidence to confirm that this application was started before 1870, it can be said that it was started after the establishment of the Naval Reforms Commission under the presidency of Hobart Pasha in 1869.

According to the published memoirs of Süleyman Nutku Bey, who was a student in the third grade of the Department of Navy in 1873, the *Peyk-i Zafer* was commissioned to carry out the orientation training as the harbour preparatory training ship, which refers to the replacement of *Fethiye* with this ship in the same year.³⁸⁹

³⁸⁹ Nutku, 1993b: 8.

According to his accounts, following their arrival to the ship, students and marines were divided into groups and given uniforms by the officers. During their three months of preparatory training, every Thursday was allocated for the cleaning of their uniforms and tarpaulins, and the personnel paid considerable attention to tidiness and keeping the ship in good order. He also adds that education on board in *Peyk-i Zafer* was considerably easy when compared with the syllabus of *Hüdavendigâr*,³⁹⁰ which was the seagoing training frigate that cadets would be sent to after the orientation. They were acquainted in detail by the captain with the rules and disciplinary regulations they needed to follow in order to avoid punishment.³⁹¹

When the accounts of Nutku and the documents related to *Fethiye* are compared, pertaining to the content of the first phase of the practical training, it can be seen that they, in most cases, correspond. For this reason it can be said that the same procedure was carried out for the training of *Peyk-i Zafer* and *Fethiye*, which were assigned for the same task in different years. This application was continued without any evidence of alteration until 1875.

Second Phase of the Practical Training for Marines

The second instructions sent by the Ministry of Marine to the captain of *Fethiye*, shows that the second phase of the practical training for the marines was started in July-August 1871, and Selim Bey was appointed as the new captain to supervise their education.³⁹² According to this, successful attendants of the first phase of training were responsible

³⁹⁰ She was constructed in Izmit and launched in 1860. In 1864, she sailed towards Southampton to be mounted with the machinery and boiler and remained in the service until 1890 (Langensiepen and Güleriyüz, 1995: 144).

³⁹¹ Nutku, 1993b: 8-9.

³⁹² DMA, ŞUB, 1901-79 (July-August 1871).

for showing their competence offshore in this stage. Furthermore, it was decided that the captain would act in accordance with the directives given by the Mediterranean Commandership during cruising. In parallel with this, the ship would proceed to Lesbos after passing through the Dardanelles Strait, and steam towards the port of Izmir to call at port for a few days for maintenance purposes. Afterwards the cruise would continue along with the Syrian coasts of the Eastern Mediterranean Sea and end in the port of Suda on the island of Crete. During the cruise, she would proceed only by sail, and usage of coal to run the machinery would not be allowed for the crew unless they encountered adverse weather conditions. In addition to this, the captain was in charge of controlling the orientation of marines with the rules and regulations on board, and the observations and analysis of their performance during cruising.³⁹³ At the end of this two-phased and relatively short education, the Ministry of Marine intended the marines to have sufficient general knowledge concerning seamanship, and to be more experienced in the usage of naval equipment. In addition to this, it provided them with a better understanding of the discipline codes required on board ships before being sent to the warships, which was necessary to assure respect for, and good communication with, their superiors.

Second Phase of the Practical Training for Students of the Department of Navy

As indicated, after finishing their three months education in the harbour training ship on May 1870, the successful pupils were sent to the seagoing training vessel to complete their remaining two years of education in the Department of Navy. We see that the *Hüdavendigâr* steam frigate was commissioned as the new training ship for the sea-

³⁹³ DMA, ŞUB, 1901-79 (July-August 1871).

training of the cadets on 3 May 1870, and the main procedures and principals of the practical training were explained by its comprehensive Code of Practice.³⁹⁴ When these newly-prepared regulations are analysed, they can be grouped under three headings as the route of cruising, teaching of the courses, and providing discipline among pupils.

Accordingly, the first routing of the ship was in the direction of the Aegean and Eastern Mediterranean ports including Çanakkale, Izmir, Rhodes, Marmaris, Cyprus, Tripoli, Beirut, Sayfa and Jaffa. In the second phase, she would continue to cruise the Western Mediterranean, visiting the Arsenal of the British Royal Navy's Mediterranean fleet in Malta; the ports of Algeria, Gibraltar, Carthage, Minorca, Marseilles; the French Navy's Arsenal in Toulon, and the Italian ports of Genoa, Naples, and Messina respectively. After its return to Malta, she would steam to the port of Suda in Crete, Kos, Chios, Lesbos, and Thessaloniki, with the final destination of her journey being Istanbul.³⁹⁵

When the memoirs of Woods Pasha and Nutku, who were the navigation instructor and a student on board the *Hüdavendigar* in 1873 respectively, are compared with the new Code of Practice prepared in 1870, it can be said that the above-mentioned route was partially altered and its content was narrowed. According to their notes, the ship first proceeded to Thessaloniki and Volos ports in the Aegean Sea and anchored at Vlore and later Suda Bay in Crete during the winter. In March 1874, she steamed towards the North Africa ports. After calling at Benghazi, Tripoli, and Tunisia, she returned to Istanbul through the ports of Suda and Çanakkale.³⁹⁶ According to Nutku, the primary focus of training was given to the modules relating to navigation and astronomy. Furthermore, procedures regarding the safety were prepared in accordance

³⁹⁴ DMA, ŞUB, 1901, 53B-54A (3 May 1870).

³⁹⁵ ŞUB, 1901, 53B-57A (18 April 1870).

³⁹⁶ Woods, 1924b: 21-25; Bal, 2003: 5-11.

with the instructions carried out in the British flagged ships. The Turkish officers were Giritli Faik Paşa³⁹⁷ and Selim Bey as the captain and the commodore respectively.³⁹⁸

Students' progress in the field of gunnery was specified as the main target for improvement in the new agenda of practical training carried out on board the *Hüdavendigâr*. For this reason, cannons of various diameters and the required amount of munitions would be provided from the Imperial Naval Arsenal and placed on the deck of the ship. Considering the need of students to learn steam technology and the usage of steam engines during cruising, it was recommended to keep the duration of cruising on the high seas longer. To improve students for commanding the ship in rough weather conditions, it was also advised to sail by using wind power.³⁹⁹

When it was necessary to land for educational purposes, such as examining the structure of a port or a foreign country's arsenal, one or two officers would be commissioned to accompany the students. Each student was responsible for keeping a logbook which should include useful information about quantities of guns, ammunitions, and personnel of foreign warships, along with additional comments made by the student himself. The captain and the instructor would also keep notebooks to submit the Ministry of Marine after completion of the cruise regarding the cadets' performance on the courses and their consistency in good discipline. In addition to this, another book, called the fault book, would be kept by the naval instructor in order to make a record of disobedient actions. Accordingly, students, who committed offences such as drunkenness and disobedience, would be sentenced for a few days of imprisonment with reduced rations. If they committed these offences again, they would

³⁹⁷ Faik bey was the Turkish officer of *Broussa* that Woods met at Mauritius on his way to Britain from Japan on 26 October 1866 (Woods, 1924b: 19).

³⁹⁸ Bal, 2003: 4-5; Woods, 1924b: 19-20.

³⁹⁹ DMA, ŞUB, 1901, 53B-54A (3 May 1870).

be isolated from the other personnel and expelled from the Naval Academy following the return to Istanbul.⁴⁰⁰ It may be seen that the authority on the practical training was shared between the commander of the ship and the teaching instructors. However students' performance in the courses and their collaboration to keep discipline on board at the required level were under the control of the Ministry via the record books kept by the ship crew. As is seen from the table below, in the same document, the daily schedule of cadets was also explained in detail.⁴⁰¹

Table 18. Daily Schedule of Cadets in *Hüdavendigar* Training Ship

Time	Works	Navigation	Gunnery	Seamanship
6.00	Waking up, making tarpaulins and putting them on the bulwark			
7.00	Breakfast			
8.00	Being ready for the roll call			
8.15		4th grade (engaged in observation)		
9.00		3 rd grade	4 th grade	
10.30		4 th grade	3 rd grade	
12.00	Lunch			
1.00		4 th grade	3 rd grade	3 rd grade
2.30		3 rd grade	4 th grade	4 th grade
4.00		Musket Drill		
5.00	Dinner			
6.30-7.30		Engaged in negotiation		
7.30-8.30	Grades to be gathered for night observation carried out by turns.			
9.30	Bedtime			

Another document dated 17 February 1874 gives detailed information regarding the curriculum of *Hüdavendigar*, the number of students in each class, their names, and the required points to be collected by cadets to pass the modules. Table 19 presents this information:⁴⁰²

⁴⁰⁰ ŞUB, 1901, 53B-55A (3 May 1870).

⁴⁰¹ ŞUB, 1901, 53B-58A (14 April 1870).

⁴⁰² BOA, HRT.h, 132-002 (17 February 1874).

Table 19. The Curriculum of *Hüdavendigar* Training Ship in 1874

Name of the Class	Name of the Course	Required Points
Third and Fourth Grade of the Department of Navy	Usage of Observation Equipment	20 (Definition and Usage, each 10 points)
	The Method of Navigation through Using Observation Equipment	80 points
	Navigation via Using Chip Log	20 (Mapping and Usage of Chip Log, each 10 points)
	Mechanism and Manoeuvre of the Navy	45 points
	Practice in Seafaring	30 points
	Definition of Lighthouses	25 points
	English	40 points
	Gunnery Practice	45 points
	Sword Drill	20 points
	Musket Drill	20 points
	Carpentry	35 points
	Ottoman History and Writing	30 points (each 15 points)
	Drawing of Solid Objects	20 points
	Practice in Signalling	20 points

Confirming the implementation of a point scoring system before 1876, this course programme also proves that the length of education for the Department of Navy was four years in 1874. In comparison with the theoretical education carried out in the school building and the training ship anchored for the students in Heybeliada, the modules devoted explicitly to seafaring (30 points) and navigation (80 + 20 points) were becoming more prominent in the course programme of the seagoing training ship. In other words, while six years of theoretical education was mainly focused on mathematical sciences, the new syllabus of the *Hüdavendigar* was organized to develop students' skills in seamanship in their last two years in the Naval Academy. In both classes, the points to be collected by students were specified as 450. When we analyse the exam charts of the students from the same document, the average student success appears as 401. We can also observe that high number of cadets successfully passed the

examinations related to navigation and gunnery sciences, such as usage of observation equipment; the method of navigation through using observation equipment; mechanism and manoeuvre of the navy; practice in seafaring, and gunnery practice. Even though this can give an impression that the programme was successfully implemented, the desired number of officers, who would be commissioned in the navy after the completion of practical training, was still very low.

Following *Hüdavendigar*'s return to Istanbul in spring 1874, the steam frigate *Muhbir-i Sürur* was appointed as the new seagoing training ship for the Naval Academy in October 1874.⁴⁰³ The reason for this replacement, which can be found in the observations of Woods and Nutku that *Hüdavendigar*, was deemed to be no longer seaworthy⁴⁰⁴ as her maneuverability was not sufficient because of her weight, which also complicated her progress particularly by sail. As the angle of rolling was 38-40 degrees when she started to yaw, water could not be prevented from flowing into the ports and this also caused difficulty for the personnel carrying out their daily tasks.⁴⁰⁵ Being aware of the importance of seagoing training for the cadets and the problems that they encountered because of the technical insufficiencies of *Hüdavendigar* in their first cruise to the Mediterranean, it is very difficult to understand the purpose of the Ministry of Marine in appointing *Muhbir-i Sürur*,⁴⁰⁶ another old and heavy frigate, for the longer cruise. Her insufficiency for an extended field trip was also indicated by Woods, stating that she had a “*small steam power and her coal-carrying capacity was very limited.*”⁴⁰⁷

⁴⁰³ DMA, ŞUB, 1901, 53B-48A (6 October 1874); Bal, 2003: 12; Woods, 192b: 25.

⁴⁰⁴ Woods, 1924b: 25.

⁴⁰⁵ Bal, 2003: 7.

⁴⁰⁶ She was constructed in Alexandria and sent to Britain to be mounted with steam engine in 1849. Following her return to Istanbul, she was commissioned in the Ottoman navy in 1850 (Langensiepen and Güleriyüz, 1995: 143).

⁴⁰⁷ Woods, 1924b: 25.

According to the instructions sent by the Ministry of Marine to the *Muhbir-i Sürur*'s captain on 6 October 1874, the first phase of the cruising was plotted to be in the direction of the Persian Gulf and the Indian Ocean. This routing was also confirmed by a notification sent by the Foreign Office to the British Admiralty on 2 November 1874.⁴⁰⁸ Accordingly, after calling at the Dardanelles and Lesbos, the *Muhbir-i Sürur* would proceed to Port Said via Rhodes, and then via the Bab-el-Mandeb to Aden. Along the same route, she would continue to cruise along the West Indian Coast and after visiting the Arsenal of Mumbai and the port of Karachi, she would return to Muscat. By passing through the Strait of Hormuz, she would steam to Bandar Abbas and later, the last destination of the first phase of cruising, Basra. The second phase would be started from Basra on May 1875. Through Hormuz Strait, the ship would proceed to Indian Ocean again after calling at Socotra Island and Bab-el-Mandeb and then return to Mocha to continue cruising along with the ports of the Red Sea including Hudaydah, Jeddah, Suez, Port Said, and Alexandria. On her way back to Istanbul, she would steam first to Alexandretta and later Rhodes and Lesbos. After visiting Volos and Thessaloniki, she would reach Dardanelles and her journey would be ended in Istanbul.⁴⁰⁹

Although the name of the captain was not stated in the same document, we learn from Nutku's accounts that he was Çerkez Mehmet Muzaffer Pasha and his commodore was Nakkaş İsmail Bey. As understood from the aforementioned instructions sent by the Ministry to Muzaffer Pasha, he was given many responsibilities in assuring this long cruise was conducted in an orderly manner. First of all he was warned about the usage of steam power, and it was stated that the frigate would proceed only by wind power as

⁴⁰⁸ TNA, PRO, ADM, 12-941 (2 November 1874).

⁴⁰⁹ DMA, ŞUB, 1901, 53B-48A (6 October 1874).

long as it was not possible to use the sails in some cases, such as in the course of entry and exit through narrow straits and ports, and coal would not be used unless it was absolutely necessary. When a decision was made by the captain and other chief officers on using the coal stocks to operate the ship by steam power, the Ministry of Marine would be notified by a protocol prepared by the captain, stating how many hours that the machinery and boiler was required to be run. During the course of entry and exit from ports, the ship would be kept out of any kind of danger and the responsibility to take required measures would be held by the captain. In addition to this, he would pay great attention to teaching the modules regarding the practices of manoeuvre, the tidiness of students' uniforms, and compliance of their behaviour with the naval regulations both on board and ashore.⁴¹⁰ As the places to be visited by the crew were foreign ports and coasts, no one would be allowed to leave the ship unless information had reached the captain about these places' current situations. If there were no perceived threats, cadets would be allowed to disembark in accordance with the regulations included in the naval code. Provisions would be spent under the supervision of the captain, who was also responsible in preventing excessive usage of supplies.⁴¹¹

Further to the regulations regarding safety and expenditures, the main focus of the instruction pertained to the training of cadets, which was also directed by the captain. Accordingly, students' progress in the practical training would be monitored and their obedience and time-keeping was measured through adherence to the timetable. Although the syllabus was not included in the same document, the names of the modules were the calculation of altitude to find the latitudes and longitudes, navigation,

⁴¹⁰ DMA, ŞUB, 1901, 53B-48A (6 October 1874).

⁴¹¹ DMA, ŞUB, 1901, 53B-49A (6 October 1874).

and the usage of machinery, gunnery, sword, and musket.⁴¹² This gives an impression that the curriculum of *Hüdavendigar* continued to be carried out with the inclusion of geographical calculations and the usage of machinery, which addressed the most problematic deficiency in the practical training implemented in *Hüdavendigar*. In addition to this, the mapping the ports of call was made compulsory for the students in the regulations of *Muhbir-i Sürur*, and it would be demonstrated by the navigation instructors in detail. Complementing the course hours, students would be engaged in the manoeuvre practices and in the case of an encounter with a foreign flagged ship, the official salutation would be performed by the crew and the students would be informed about this application in detail.⁴¹³

As understood from Nutku's observation, the routing of the training ship had to be altered due to problems encountered during the cruise. Accordingly—following her departure from Istanbul—*Muhbir-i Sürur* proceeded directly to Port Said and after passing through the Suez Canal, she called at the port of Hudaydah and anchored at Kamaran Island for one month. While there, the students followed the instructions to map the port of Kamaran under the supervision of navigation instructor Woods Pasha, as indicated in the regulation sent by the Ministry to the Captain Muzaffer Pasha on 6 October 1874. After leaving Kamaran on December 1874, the ship passed Bab-el-Mandeb and without calling at the port of Aden, continued to cruise around Socotra Island. Once here, Nutku mentions that the crew deserved to be warned as they were using the machinery not suitable to the southern parts of the island, which included shallow areas, although using steam power was forbidden apart from necessary cases in

⁴¹² DMA, ŞUB, 1901, 53B-48A (6 October 1874).

⁴¹³ DMA, ŞUB, 1901, 53B-48A (6 October 1874).

the instructions given by the Ministry.⁴¹⁴ Upon reaching Ras Fartak, she called at the Kish Island and entered the port of Basra. There, it was understood by the crew that due to the mouldy biscuits and the stagnant water adding to the humidity, dysentery was spread among the personnel and resulted in the death of 19 people. Blaming the Ministry for these losses, Nutku continues his criticism with the following statements:

The tasks and liabilities in arranging seagoing training vessels were not carried out properly and on time which made the cruise torturous for the personnel. An opinion was formed among the students that we had to get used to difficulties and deprivations as provisions allocated for the training ships could not be compared with the foods given to the foreign flagged ships. The capacity of the ship was not considered as they embarked a hundred and fifty, perhaps two hundred people, instead of a hundred. For this reason, the Turkish marines whom we left in the Red Sea were the victims of these omissions.⁴¹⁵

Muhbir-i Sürur departed from Basra and upon the direction of Ras Tanura, reached Karachi, and later Mumbai. In this port, requesting assistance from the Ministry was deemed necessary to purchase coal and students continued their training ashore. Their close relations with locals caused an official notification made by the British officers to leave the port after 13 days, and they helped the crew by purchasing coal without waiting the response from Istanbul. They left Mumbai on March 1875 and passed the Arabian Sea in 15 days. As is understood from Nutku's observations, another one was added into existing difficulties experienced by the crew when they were trying to reach the port of Jeddah. Around Kamaran Island, the machinery stopped working due to a broken probe and steam erupted out of the ship in various places, caused by corroded exhaust pipes. Under these circumstances, they had to seek haven at the port of Trinkitat on the African coast, and spent 15 days until the machinist Hüseyin Bey repaired the machine. During this time, Nutku mentions that although a kind of

⁴¹⁴ Bal, 2003: 12-13. This information shows that the personnel tried to carry out their tasks in accordance with the regulations dated 6 October 1874.

⁴¹⁵ Bal, 2003: 15-16.

disobedience was avoided among the cadets, credited to the wise direction of the Captain Muzafer Pasha, it caused the students and the personnel to become despondent following the occurrence of food shortage. In this port, everybody blamed the government for haplessly overlooking the requirements of this long cruise, such as a strong vessel and a determined budget which should be enough for meeting at least the basic needs of the personnel and the maintenance of the naval equipment. The conditions were bad; it was even decided by the captain to allocate remaining biscuit crumbs only for the students following the consumption of all the biscuit stocks. In the meantime, an Egyptian steamer carrying coal and biscuits reached Trinkitat to assist *Muhbir-i Sürur*. With the arrival of this aid, she steamed first to Jeddah and later Suez where they had to wait for days due to the insufficient coal supplies. After their arrival at Suda port, another order was issued; the students of the fourth grade in the Department of Navy were divided into groups to participate in the cruise of the Turkish squadron that consisted of four corvettes under the commandship of Bozcaadalı Hasan Pasha. This fleet included the *Muhbir-i Sürur*, which proceeded to Tripoli and after visiting Tunisia, the final year students returned to the training ship.⁴¹⁶ Following coaling in Suda Bay, the cruise for a period of two years ended in Istanbul.

On 9 May 1876, *Muhbir-i Sürur* was commissioned once again for the same purpose, but this time the content of her cruise was narrowed, limited to the Anatolian coasts of the Mediterranean, which adjustment was likely influenced from the problems encountered in her previous journey. According to the new routing, she would proceed

⁴¹⁶ The squadron under the command of Hasan Pasha consisted of the following corvettes; *Edirne*, *Muzafer*, *İzmir* and *Mansure*. The cruise was performed under sail in accordance with the instructions and the squadron had to be sent to from Tunisia to Klek due to the disturbances in Herzegovina and Bosnia (*United States Department of State Papers Relating to the Foreign Relations of the United States, Transmitted to Congress, with the Annual Message of the President, 1876: 577-578*).

to the Dardanelles following her departure from Istanbul and continue to steam towards the Western Mediterranean, visiting Thessaloniki, Volos, and Crete. From there, she would pass to Cyprus and call at the ports of Antalya, Kilis and Marmaris. On her way back to the Aegean Sea, she would cruise along the coasts of Western Anatolia and her journey would end in the Dardanelles.⁴¹⁷ As is understood from the last article of the instructions sent by the office of Kapudan Pasha to the commander of *Muhbir-i Sürur* on 15 November 1876, the political tension between the Ottoman Empire and Russia resulted in the transfer of the routing of the training ship to the Black Sea after seven months. Accordingly, the cruise would start from Istanbul to the Rumelian coasts of the Black Sea including Burgas, Varna, and Balchik and she would continue to steam towards the Anatolian coasts, calling at the ports of Ereğli, Sinop, Samsun, Trabzon, and Batumi. Her last destination was determined as Sinop and the captain held the responsibility of informing the office of Kapudan Pasha about their arrival. He was briefed that they would stay in this port to await further orders. Due to the increasing importance of the Black Sea shores, he was also in charge of preparing reports on the political conditions of the ports and informing the Kapudan Pasha via telegram.⁴¹⁸

As seen, the practical training for cadets in the Department of Navy was carried out in a two-phased system, which included a three-month orientation period in a harbour training ship, followed by practical training for a period of two years in a seagoing training vessel. In the period of Sultan Abdülaziz, while *Fethiye* and *Peyk-i Zafer* were commissioned for the orientation of the students and naval recruits, *Nüvid-i Fütuh*, *Hüdavendigar* and *Muhbir-i Sürur* were assigned for the third and fourth grade students' offshore training in both Ottoman and foreign waters in 1864, 1873, and 1874

⁴¹⁷ DMA, ŞUB, 1901, 53B-189A (9 May 1876).

⁴¹⁸ DMA, ŞUB, 1901, 53B-202A (15 November 1876).

respectively. As is confirmed by archival data, detailed instructions and intense trip programmes were prepared by the Ministry to provide cadets with more experience in seamanship and navigation in various areas in the Mediterranean, Red Sea, Indian Ocean, and the Black Sea. However, the accounts of officers and students—who participated in training trips carried out in *Hüdavendigâr* and *Muhbir-i Sürur* in person, like Woods Pasha and Nutku—show that the declining situation of the naval treasury was not taken into consideration by the Ministry of Marine due to the intention to apply the system of the British Admiralty properly to the Ottoman Navy. The longest trip organized in *Muhbir-i Sürur* confirmed that increasing problems, such as food and water shortage, inadequate amount of coal, and epidemics, caused the routing to be changed and interruptions to be observed in the cadets' training programme.

As is shown, the ships of which the modern Ottoman Navy was now composed of, either by way of purchasing or by means of new construction, were operated by steam power; even the ships inherited from the previous period were mounted with steam engines. In this case, it should be expected that the graduates of the Departments of Navy and Machinery of the Naval Academy would have acquired exceptional practical experience with and knowledge of the operation of steam engines while at sea. Conversely however, only a single module regarding steam technology was offered in the entire two-year course programme on board the training ship.

In addition to this, prohibition of the usage of coal appears as the other important oversight of this training programme, as the students missed out practising the usage of machinery and also manoeuvring exercises when the ship was operated by steam power. For this reason, practical training in this period can be considered as an ideal

programme for the age of sail, but it was far from meeting the essential needs of steam and armoured ships.

Conclusion

As clearly presented, apart from the constant changes made on the length of education and school curriculum, the number of the graduates was far from adequate to meet the desperate need of the navy in their intentions of bringing an end to the dependency on Western aid. Instead of trying to apply the British system in a relatively short time, the following questions should have been discussed on the basis of decisions taken by the Ministry: (1) Were the graduate students able to meet the expectations in respect to the heavy investment allocated from the budget of the Ministry of Marine? (2) Was the idea of spending a long and tiring eight years in *Heybeliada* generated by the naval bureaucracy supported by the marine officers? (3) Would technical expertise provide officers the necessary infrastructure for determining the required strategy during war-time?

In parallel with the technological changes, the Ottoman Empire intended naval education to have a more systematic structure by modelling itself on European navies, which consisted of armoured, heavy tonnage and steam-operated ships. For this reason, traditional training methods carried out using practical expertise in the age of sail were transferred into the school buildings. However, the above documents confirm that the students—who still lacked sea and military experience after six years of theoretical education and with an additional four years preparatory training—were incapable of mastering the naval strategy required in the integration of technical expertise, local intelligence, historical insight, and individual understanding. The main purpose of the

new training ought to have provided the students with training that would adequately prepare them for contemporary military equipment and practical strategies in order to gain advantage against the enemy during war.⁴¹⁹ If achieved, it was envisioned such a graduate would be able to make decisions instantly, and manipulate wartime situations in favour of the Ottoman Navy in the most dangerous part of his military task, by combining technical information obtained from school and his own understanding.

To achieve this aim, the preparatory education should have been transferred from the school building to the training ship, mirroring the methods carried out in the same period for the Royal Navy. By integrating technical education and the exchanging of experiences, the students not only would acquire the basic maritime knowledge but also understand the discipline of the ship at a young age, and start their higher education with this awareness. On the other hand, while the students of the Royal Navy were awarded with the rank of sub-lieutenant immediately after completing their preparatory education,⁴²⁰ the same rank was given only after six years for the Department of Navy and seven years for the other departments in the Ottoman Naval Academy. Training students with a long and challenging theoretical education without giving them a rank can be seen as another negative factor affecting their motivation. Arguably, the main targets of the naval reforms should have considered greater concentration on the practical training at an early period of the naval education, and promoting trained officers who would be able to implement the right naval strategy. As seen, the Ottoman naval bureaucracy—which suffered an unstable structure concerning the length of education, the curriculum and the student quotas—resulted only in an increase in the number of students, without providing trained officers to meet the needs of the newly

⁴¹⁹ Lambert, 2006: 34-35.

⁴²⁰ Winton, 1995: 269.

constructed ships. Overall, taking into consideration the myriad shortfalls discussed, this educational program should be regarded as an unmitigated failure.

CHAPTER 6. THE ADVANCEMENTS OBSERVED IN NAVAL TECHNOLOGY AND THE COST OF THE NAVAL MODERNIZATION

Introduction

As an administrative centre, the Imperial Naval Arsenal of Istanbul represented the main area of the Empire's maritime affairs. This large organization was the office of the Grand Admiral, as well as the construction site of new ships.⁴²¹ In the seventeenth century, the Arsenal appeared to be a large complex which consisted of slipways, cellars, storehouses, and the main administrative building called the *Divanhane*. For use of the naval personnel, there were also a mosque, prison, prayer room, bakery, kitchen, and a bathhouse. Adapting to the emerging trends in the shipbuilding technologies, the physical structure and the working system of the *Tersane-i Amire* were gradually changed under the influence of foreign experts, who were employed especially after the Battle of Çeşme in 1770. In this present chapter, we will first examine these western-oriented effects on the evolution of the technical modernization by focusing on the measures taken to revive the local industry and the construction of dry dock number one in the reign of Sultan Abdülaziz. In the following section, the organization and structure of the Imperial Naval Arsenal will be considered by analysing the workforce commissioned in the manufacturing and construction stations. As a result of our

⁴²¹ After the conquest of Constantinople by Sultan Mehmed II, the port of Kadirga located in the south of the peninsula was used as a small scale dockyard in addition to Gallipoli until the establishment of Galata Shipyard in the reign of Sultan Selim I. When it was completed under the supervision of Grand Admiral Cafer Pasha in 1515, the Galata Shipyard occupied a space from Galata to Kağıthane and included around 200 slipways that could accommodate the construction of at least 150 galley-type warships. For this reason, the first use of the term *tersane*, to characterize the organization in which ships have been built and equipped, has been observed for the Galata Shipyard in the *Galata harc-ı hassa defters*, dated between 1527 and 1528. (Uzunçarsılı, 1988: 397, Bostan, 1992a: 2-5). The origin of the term "tersane" is based on the Arabic word of "daru's-sina'a" which has been used by various Mediterranean countries such as Spain, Portugal, Italy and Malta. According to early Ottoman documents, the word "port" was used to refer the dockyards until the beginning of the sixteenth century. From that period, the Ottomans started to use the term "tersane" or "tershane" which had been translated into Turkish from the Italian term of "darsena" (Bostan, 1992a: 2).

research in the Istanbul Naval Museum Commandership Archive, we found the numbers and monthly salaries of foreign and local personnel, clearly representing the increasing British influence on the local industry, while enabling us to make a comparison between the numbers and the monthly salaries local and foreign workers. By using this useful information, the working conditions of these two groups will be examined in the following section.

In the second part of the chapter, we will focus more on the Ottoman naval fleet in the age of ironclads. By analysing the introduction of armour and explosive shells to warship design between 1853 and 1861, their impacts on the emergence of Ottoman armoured navy and the names and technical features of the Ottoman ironclads will be detailed in the relevant section. The second part will be concluded with a comparative table, ordering the numbers and total tonnage displacements of armoured battleships of European naval powers.

The third part has been reserved to consider the naval treasury and cost of the naval modernization. Accordingly the allocation of the naval treasury, its distribution and the amount of loans that concluded this period with the announcement of the state's bankruptcy will be detailed. In the final part of the chapter, the rise of torpedo and its impacts on the naval policy of the Sultan Abdülhamid II will be examined to have a better understanding on the reason for the passivation of the Ottoman Navy in the Golder Horn until the 1890s.

The Modernization of the Imperial Naval Arsenal

The Construction of the Drydocks

Until the end of the eighteenth century, Ottoman battleships, transport ships, and merchant vessels were constructed in slipways on land called *çeşm or göz*. However,

this traditional method led to some difficulties when it came to launching and laying completed vessels on the stocks.⁴²² In addition, when large ships such as ship-of-the lines were to be launched, the launching speed could not be arranged accurately because of the weight of the vessels and grounding problems that were encountered frequently.

The French shipbuilding engineer Le Brun, who was commissioned to participate in the naval modernization activities of Sultan Selim III's era, proposed a new method to solve this problem. According to his proposal, ships would be built on land up to their portholes and the construction of the deck portion would be accomplished after launching. In the same period, ships began to be built in dry docks in a similar process. Besides allowing repair, maintenance, and fitting procedures to be completed in a quicker and easier way, these structures also enabled the hull of the vessels to be built in a dry environment thanks to their double-edged doors and bailing pumps.⁴²³ The estimated construction time was stipulated by Le Brun as approximately three years. However, this offer was rejected at first on the grounds that the cost of the dry dock was too high. Later on, the Sublime Porte was persuaded that although ships kept and maintained in European dry docks remained in service for at least 40-45 years, the Ottoman vessels lasted only about 15 years.

Following the decision to build a dry dock in the Imperial Naval Arsenal, a group of new experts were brought from Sweden adding to those already present from France, and both groups were asked to prepare a report regarding their proposals for construction. According to the French project, the dock had to be built on water. After dredging and underwater blasting to open the required channels, a very large caisson would be submerged and the water would be pumped out to enable the construction of

⁴²² Bostan, 1992b: 70.

⁴²³ Zorlu, 2008: 68.

the quay walls. Unlike the French proposal, the Swedes insisted that building the dock on land was a better idea. Accordingly, after determining a suitable place for the construction, the working area would be surrounded by driving sheet piles in order to operate the excavation works in a dry pit. In this way, the dry dock would not only cost less, it would also be built on a more solid foundation. As a result of the negotiations, the French proposal, which would cost two times more than the Swedes', was rejected. It was decided that the Swedish group, led by the engineer Rhode, would be employed for the construction work after a six-month trial period. From the beginning of trials on 4 June 1796 to the official starting date on 4 February 1797, preliminaries such as manufacturing the workbenches and pumps, excavation of the specified area, which was next to the *Zahire Ambarı* (granary) at the Imperial Naval Arsenal, and building a new gate, railing, and stone pavement were completed.⁴²⁴

Primary requirements of a dry dock of this size were to supply and bring the basic materials such as timber, stone, lime, and iron. The expenditures spent for these purposes would be covered by the budget allocated from the new treasury. Accordingly, timber was brought from Kidros, Cide (pinewood), Misivri, Ayholu, Sergen Mountains (oakwood), and Iznikmid (hornbeam), while stones were shaped in İstinye quarry and lime and iron were mostly supplied from Pendik.⁴²⁵ For the most part, the same sources of supply were used for the Ottoman ship construction in later decades. In addition to this, a special kind of soil called *boçlana* was brought from Santorini and Değirmenlik islands, as well as being imported from Italy.⁴²⁶

The first dry dock of the Imperial Arsenal, which cost approximately 6809 pounds sterling and is known today as dry dock number three, was completed in

⁴²⁴ Zorlu, 2008: 58-59; Bostan, 1992b: 74-75; Müller-Wiener, 2003: 82-83.

⁴²⁵ Bostan, 1992b: 77.

⁴²⁶ Bostan, 1992b: 78; Zorlu, 2008: 59; Gencer, 2001: 52-53.

1800.⁴²⁷ It brought a new approach to Ottoman shipbuilding practice and created a suitable environment for the intense naval modernization after the reign of Sultan Selim III. It also provided a technological model for the construction of future docks. Despite being damaged by the sea water seeping into the sheet piles and necessity for repairs in 1801, 1807 and 1814, it continued to be used in the Imperial Naval Arsenal for a long time.

After the introduction of steam power into the Ottoman Navy in the period of Sultan Mahmud II, dry dock number two was built with similar methods by Abdülhalim Efendi, a lecturer in the *Mühendishane* and his foreman Manol (Manuel), who were employed in the construction of the previous dock between 1821 and 1825.⁴²⁸ In addition to having the same features such as dimensions, construction techniques, and design identical with European made dry docks, these docks also brought a new and modern look to the *Tersane-i Amire*.

In parallel with the rapid increase in the numbers of newly built and purchased ships during the reign of Sultan Abdülaziz, the existing dry docks were renovated and new ones were built.⁴²⁹ The first dry dock of this period was the largest dock⁴³⁰ of the Imperial Naval Arsenal, known as dry dock number one today. Indeed, the decision to build a new dock was made in 1857 but it was not actualized due to the financial crisis.⁴³¹ Although it is uncertain when this was brought to the agenda again, the permit for construction was authorized approximately five months before Abdülaziz's accession to the throne on 26 January 1861. Provided that there would be enough space

⁴²⁷ Müller-Wiener, 2003: 82-83.

⁴²⁸ Zorlu, 2008: 62. The completion date of the construction of the dry dock number two was in 1829 according to Panzac, 2009: 331.

⁴²⁹ Panzac, 2009: 331; Zorlu, 2008: 62; Büyüktuğrul, 1983: 67-68; Langensiepen and Güleriyüz 1995: 3.

⁴³⁰ Panzac, 2009: 331.

⁴³¹ Müller-Wiener, 2003: 114.

to build the seaport, the surface of the dock would never be covered and the construction of new buildings in the construction site would not be permitted.⁴³² Although there is no definite evidence concerning the official starting date of construction, the agreement was signed with the French engineer de Lef to build the dry dock in April 1864.⁴³³ In this case, it can be said that construction works started in the early years of the reign of Sultan Abdülaziz.

The finishing date for the dry dock has been identified in a recent study as 1861.⁴³⁴ However, the information obtained from the archival sources show that this cannot be possible. In fact, it was stated in the *Ceride-i Askeriye* issued on 18 June 1864 that the excavation works for the ground of the dock had been underway for several years, which confirms the construction was still ongoing in 1864. In addition, we learn from the same issue of the *Ceride-i Askeriye* that the process to drive the stakes in the roads of the harbour, which were required to seal the construction works, began on 4 June 1864.⁴³⁵ Accordingly, the method of Swedish engineer Rhode, who had been in charge of building dry dock number three, was still underway in this period as the students of Rhode like Vasil Efendi were the leading figures of the new dry dock's construction team. In addition to this, a map of Golden Horn, which we found in the National Archives of Britain and was sent to the Admiralty on 15 November 1864 by Edward H. Wilkinson, a lieutenant in *HMS Caradoc*, shows the locations of the main units of the Imperial Naval Arsenal with some additional information.⁴³⁶

⁴³² BOA, A.MKT.NZD, 340-59 (26 January 1861).

⁴³³ BOA, A.MKT.MHM, 297-26 (12 April 1864).

⁴³⁴ Panzac, 2009: 331.

⁴³⁵ *Ceride-i Askeriye*, 'Mevadd-ı Bahriye', 23, 18 June 1864.

⁴³⁶ TNA, PRO, MPI 1-727-8 (15 November 1864).

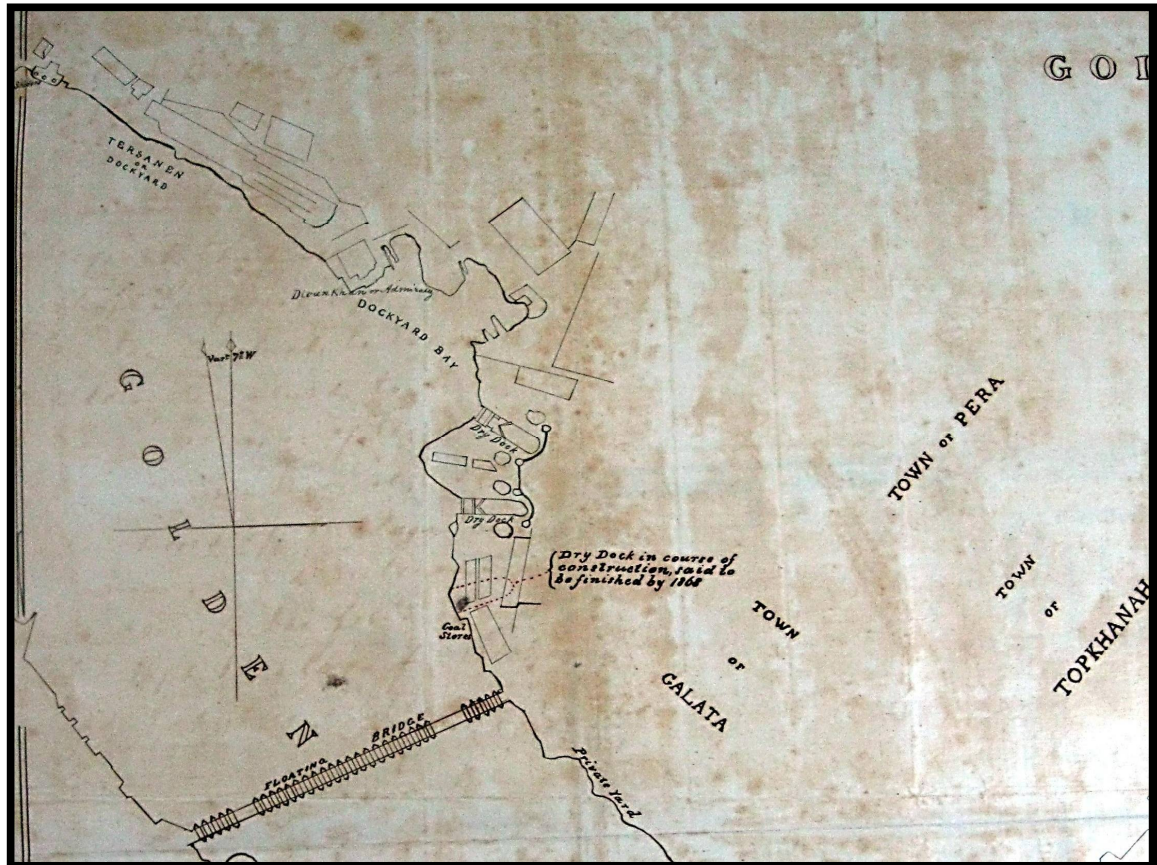


Figure 6. Dry docks Area of the Imperial Naval Arsenal, 1864 (TNA, PRO, MPI 1-727-8)

If we take a closer look at this map we can see from top left to right: the location of the Imperial Naval Arsenal, dry docks area, coal store, and the floating bridge that connects Karaköy and Eminönü—known today as Unkapani or Atatürk Bridge. The other floating bridge—which was ordered from G. Wells Company—is known as Galata Bridge today. Also, we can see boat houses for state barges; the line that shows the border for the ships that should receive a confirmation from the Health Office to pass it; English Factory, and Gun Wharf.

This information not only confirms the statements in the army and navy gazette but also gives us a clue about the estimated finishing date of the construction work, which was determined as 1868. Another archival document dated 11 October 1865 explains the reasons for building a new dry dock in the Imperial Naval Arsenal as well

as giving an idea regarding the end date of the construction. The ongoing construction of the Iron Foundry and Ironworks Factories restricted the buildable areas in the Arsenal, thus the area around dry dock number three that was used for the cleaning and maintenance of the wooden ships was insufficient for the large armoured ships in terms of its dimensions. For this reason, it was emphasized that the new dock must be ready within nine months in order to prevent the naval treasury from incurring great expenses. To prevent excessive expenses, it was decided around 100 stonemasons, 50 carpenters and an appropriate number of farmers should be employed to complete the construction at the appointed time.⁴³⁷ Based on this information, it can be inferred that the dock was completed in July 1866. Despite using methods similar to Selim III's era for its construction, the new dry dock differed from the previous one with its bailing pumps, which were operated by steam power instead of horse power.⁴³⁸

An official document sent from the Naval Assembly to the Ministry of Marine on 12 July 1871 shows that at a later stage, the Arsenal was in need of a small floating dock, which was called in the same document as *filotunduk*. The statement of reasons for building this dock, which could be deployed in the desired area on the seaside, was explained in detail. Due to the fast growing number of the armoured ships, this new dock was essential for their maintenance and cleaning. It would also be used for the renovation of the steamers belonging to the *Hazine-i Hassa* (the Sultan's Privy Purse) and the other small steamboats built from wood or sheet iron. In addition, it would cover its expenses at short notice by serving foreign ships and merchant vessels for their repairs and maintenance. In consequence, the construction had to start as soon as possible as it would also be an "auspicious inception" for the future construction of a

⁴³⁷ DMA, MKT, 65-79 (11 October 1865).

⁴³⁸ Panzac, 2009: 332.

bigger dock, which would be used for large armoured ships. Apart from the timber, which would be supplied from the stocks of the Imperial Naval Arsenal, the expenses, including the cost of workers, were calculated as approximately 4587 pounds sterling.⁴³⁹ On the same date, a letter including the demand of İşkodra Province to build a facility for the cleaning of armoured pontoon boats and the maintenance of merchant ships was sent to the Interior Ministry. As is seen from the remainder of the letter, this decision was approved by the Imperial Naval Arsenal on the grounds that a floating dock would be built instead of a facility on İşkodra Lake. In addition, it was pointed out that the construction should start immediately and the costs would be met by the Province and not be demanded from the budget of the Arsenal.⁴⁴⁰

Towards the end of 1872, it was determined that the dry dock number three in Kasımpaşa failed to fulfil the needs of increasing number of armoured ships and needed to be widened by around 30 metres. In addition to this, the construction of a new dock in İzmir was proposed by the Naval Assembly for the maintenance of the wooden ships, whose number had increased by the use of the coastguard and local transportation. It was also highlighted in the same protocol that the expenses of the construction would be covered by the Ministry of Finance.⁴⁴¹ As is understood from another letter sent to the Ministry of Marine on 14 October 1873, the stipulated width of the dry dock number three was found to be insufficient and it was decided to extend it to a length of approximately 129 meters. The construction work was assigned to Vasil Efendi, the architect of the Imperial Naval Arsenal, provided that the renovation would be completed in 14 months, with a portion of the necessary materials being donated by the Arsenal. The other expenses, amounting to 19,350 pounds sterling, were requested from

⁴³⁹ BOA, İ.DH, 635-44162 (12 July 1871).

⁴⁴⁰ DMA, MKT, 127-13 (12 July 1871).

⁴⁴¹ DMA, MKT, 162-19 (7 October 1872).

the Naval Treasury's 1871-1872 budget with the condition that 1683 pounds sterling would be paid in advance and the rest month-by-month as the construction advanced.⁴⁴² On 1 June 1874, an official protocol was sent from the Naval Assembly to the Ministry of Marine. According to this document, it was decided that dry dock number three should be further extended from 129 meters to 152 metres based on the Naval Assembly's report prepared to determine the required width. The estimated cost of the construction was around 58,917 pounds sterling, and it would be paid for by the Naval Treasury's budget for the following year.⁴⁴³

As is seen, the number of active docks in the Imperial Naval Arsenal reached four towards the end of the reign of Sultan Abdülaziz, including the construction of dry dock number one and the small floating dock in Kasımpaşa. The techniques of Swedish engineer Rhode continued to be applied in this period and steam power began to be utilized for bailing out excess water. In addition to these developments, the construction of small floating docks in İşkodra and İzmir were undertaken, primarily for the maintenance of transport vessels. Another notable point regarding the dry dock building is the increase in the scale of construction. While the construction of dry dock number three had cost around 6809 pounds sterling, the budget allocated for the extension of dry dock number three was 19,359 pounds sterling after 70 years. This budget needed to be increased to 58,917 pounds sterling one year later. These figures confirm that there was a phase increase in the expenses of the materials to be used for the construction, their transportation, and the wages of the workers, a trend especially apparent in the mid-1870s. It is also possible that the big jump witnessed in 1873 resulted from the underestimation of project cost established in the protocol dated 14 October 1873.

⁴⁴² BOA, A.MKT.MHM, 466-43 (14 October 1873).

⁴⁴³ BOA, İ.MMS, 49-2100 (1 June 1874).

Additional Buildings, Factories and Manufacturing Activities

The Imperial Naval Arsenal, which was continuously enhanced in terms of capacity and infrastructure—adapting to the developments in the new shipbuilding techniques from the sixteenth century to the nineteenth century—was expanded through additional buildings built for the maintenance of new vessels and as a result its capacity for manufacturing naval equipment was substantially increased between 1861 and 1875. With its buildings, dry docks, stores, and factories, the Arsenal occupied a space over two kilometres long between Golden Horn and *Pera* during the reign of Sultan Abdülaziz.⁴⁴⁴

As is known, the first industrial plants of the Ottoman Empire were the large and small scale dockyards which included the dry docks and ateliers that provided production of naval equipment. With the involvement of steam engine in the Ottoman shipbuilding technology, the network of railways shifted largely to the Golden Horn Basin in order to transport the required coal for the battleships of the Ottoman Navy and the steamships of *Şirket-i Hayriye* Company. Because of this, the Golden Horn became the main industrial area of the Empire with new factories being built mostly to serve the war industry.⁴⁴⁵ In the Imperial Naval Arsenal, the first industrialisation movements were started with the purchase of steam engines from Britain during the reign of Sultan Mahmud II. In parallel with this, the first factories of the Arsenal were built in Aynalıkavak in 1831 and they were fitted with three machines which were bought from Britain and operated by steam power. These machines were used for the manufacturing of copper plate, cannonball shaping, and polishing.⁴⁴⁶

⁴⁴⁴ Panzac, 2009: 331; Şeyisvaroğlu, 1965: 174-175; Ünlü, 2005: 232.-233.

⁴⁴⁵ Sarı, 2006: 93-94.

⁴⁴⁶ Bal, 2010: 133-134.

The main purpose of the establishment of these factories was to produce domestic versions of the machines previously imported in order to reduce costs. In accordance with this purpose, the business volume of the existing factories was greatly enhanced and new factories and additional buildings were built in the Imperial Naval Arsenal to apply the new techniques in shipbuilding technology during Sultan Abdülaziz's period. One of the first steps undertaken for this policy was the foundation of the Commission for the Reformation of Industry, which started its activities in 1864. According to its Code of Practice, the main tasks of the Commission were to combine the branches of the Ottoman industry, which were progressively decreasing, gather them under a single company and purchase new machineries by releasing its shares. Besides, providing importation facilities and tax exemptions, the foundation site of the administrative buildings would be reserved by the Empire for the company owners, and the government offices would be encouraged to purchase their needs from domestic manufacturers.⁴⁴⁷ As is seen, the Sublime Porte aimed at keeping the prices and the quality of production at a certain level and reducing the expenditures of ministries and other offices. Therefore manufacturing and mass production would be increased, giving the Ottoman Empire a strong place in the international market, whilst reducing their own reliance on foreign goods and technology.

Among these companies founded during the period of the Commission for the Reformation of Industry in the years between 1864 and 1874 were the *Dökümcüler* (smelters) and *Demirciler* (ironsmiths) Companies, which were founded on 14th April 1868 and 29th April 1868 respectively.⁴⁴⁸ The primary function of these companies were the production of a wide variety of equipment such as cannonballs, chain, gun collars,

⁴⁴⁷ Önsoy, 1988: 96.

⁴⁴⁸ Önsoy, 1988: 111-113.

steering wheels, copper nails, rib frames, rudder pintles, shaft bearings, hinges, screws, and numerous machinery parts to be used in military, naval, and industrial applications. In order to encourage the increase of production, these companies were exempted for six years from the customs and stamp duties required for imported machinery and raw materials. After the establishment of the School of Industry in 1868, industrial infrastructure—required to increase the productivity of the Imperial Naval Arsenal and to supply skilled workers and cheaper equipment—was prepared. Within the framework of these steps taken to revive the Ottoman industry, the main manufacturing and shipbuilding areas in the Imperial Naval Arsenal were subjected to a series of innovations in order to revise the existing working system and to tailor their productive capacity for the growing number of warships. Especially after the establishment of the Ministry of Marine in 1867, a more systematic framework for the factories was introduced and, upon the establishment of the Naval Reforms Commission, the modernization of the Imperial Naval Arsenal was focused more specifically on the naval industry from 28 April 1869.

Local and Foreign Personnel and Their Working Conditions

As well as being responsible for the productivity of the dockyards, military and civil personnel of the Arsenal were also in charge of implementing and monitoring the reforms decided by the Naval Reforms Commission. Accordingly, the success of the planning reforms depended greatly on the naval workforce, who can be divided into two main categories as the civilian employees of the Ministry of Marine and the workmen of the Arsenal. In order to supervise and monitor them, the administrative units attached to the Ministry were reorganized in 1867. Based on the documents preserved in the

Istanbul Naval Museum Commandership Archive, the names of these units, which give an idea about the working conditions of the naval workers according to new regulations in Abdülaziz's era, were as follows: *Amele Yoklama Odası* (the Labourer Roll Call Unit), *Bahriye Muhasebesi* (the Finance Office of the Arsenal), *Jurnal Odası* (the Log Unit), *Bahriye Yoklaması* (the Naval Roll Call Unit), and *Muvakkit Odası* (the Timekeeping Unit).

When the regulations of the Labourer Roll Call Unit are examined, it can be immediately seen that this unit was held responsible to keep the number of the workers at a certain level, so as to prevent a possible decrease in the production. Accordingly, the main task of this unit was to maintain a record book that included the names of the permanent personnel employed in the Arsenal, the starting day of their employment and salaries, and to keep a roll call book regarding the arrival and departure times of the workers together with *icmal* (summary) and *tevzi* (distribution) books at the end of each month, which was to be submitted to the Director of the Imperial Naval Arsenal. Foreign engineers employed in the naval factories would also have a record book, including their names and a summary of the articles of their contract, in order to carry out disciplinary procedures when necessary. In addition to this, the unit would be informed regarding the dismissals or the hiring of new employees by the Manufacturing Council with an official memorandum. After updating the records, it would send a certificate that showed the names and wages of these workers to the Finance Office of the Arsenal.⁴⁴⁹

The Finance Office of the Arsenal was mainly in charge of the payment of the workers' salaries on a regular basis. For this reason, a copy of the record book held by

⁴⁴⁹ DMA, TRS, 392-3A (3 January 1867).

the Labourer Roll Call Unit was kept by this unit to calculate the salaries correctly. As in seen in its Code of Practice, a separate book including the names, wages, and a summary of each contract was to be maintained for foreign engineers employed in the naval factories or steamships.⁴⁵⁰ This application shows that there were different procedures for salary payments of the foreign and local workers, which had the capacity to cause a conflict of interest between these two groups.

The Log and the Naval Roll Call Units recorded the information about the military personnel. The Log Unit, which was responsible for keeping the daily worker logs, helped the Labourer Roll Call Unit to prepare summary and distribution books at the end of each month. This was also necessary for the preparation of other books, including the salaries of the Naval Industry Corps.⁴⁵¹ Keeping these books showing the names and the salaries of marines was the main task of the Naval Roll Call Unit, which was also in charge of sending a copy of these books to the Log Unit at the end of each month.⁴⁵²

The Timekeeping Unit was established to arrange the working hours of the factories and to ensure the punctuality of the workers. According to its regulations, marines, non-military officers, and local and foreign workers who were employed in the factories of the Imperial Naval Arsenal, were to be at work at the specified time. They would leave their IDs allocated by the factories in the drawers of the timekeeping unit's room before starting the work. The first part of the drawer was reserved for the IDs of the punctual workers and would be closed five minutes after the starting time of work. The second and the third parts of the drawer were for the workers who were late for work and would be closed at ten and 30 minutes after starting time. The workers, who

⁴⁵⁰ DMA, TRS, 392-3B (3 January 1867).

⁴⁵¹ DMA, TRS, 392-4B (3 January 1867).

⁴⁵² DMA, TRS, 392-4C (3 January 1867).

came to the factory after closure of all three parts, would not be accepted until the end of the lunch break. There would be a deduction based on the missing working hours for those who had to leave their IDs in the second and third parts. In addition to this, workers were required to take their IDs in the lunch break times. At the end of each break, they would leave the IDs in the parts of the timekeeping drawer in the same fashion as the morning practice. The starting times of work of the workers after lunch breaks would also be recorded in the daybooks.⁴⁵³ The table below clearly shows the marking methods of the timekeeping unit's officers:

Table 20. Marking Method of Timekeeping Unit for Controlling the Punctuality of Workers

Starting Time of the Work	The Signs ticked off according to the marks which were kept in the parts of the timekeeping unit's drawer		
	First Part (punctual workers)	Second Part (late-coming workers for maximum ten minutes)	Third Part (late-coming workers for maximum thirty minutes)
Morning	X	$\frac{1}{4}$	$\frac{1}{2}$
After the lunch break	X X	$\frac{1}{4}$ X	$\frac{1}{2}$ X
Those who were absent in the morning and started work after the break	. X	. $\frac{1}{4}$. $\frac{1}{2}$
Those who were punctual in the morning and absent after the break	X .		
Those who were absent during all working day	. .		

According to an archival document regarding the factories and commissioned officers, the active factories, store houses, and their administrative officers with their ranks are listed as follows:⁴⁵⁴

⁴⁵³ DMA, TRS, 392-7A (28 April 1869); DMA, TRS, 392-8A (28 April 1869).

⁴⁵⁴ DMA, TRS, 392-37A (6 May 1870).

Factories and Store Houses	Comma nder	Major Colonel	Lieutenant Commander	Lieutena nt	Sub- lieutenant	Captain	Master Foreman	Meydan Foreman	Head of Mast	Architect
Ironworks Factory		5		2	1	1				
Armoury Factory		3		2	1		1			
Yalıköşkü Factory	1	2		1	1					
Repair Factory			1				1 (British)	1		
Boiler Factory		1	1							
Rolling Mill and Iron Foundry Facs.	1									
Pattern Factory		1								
Manufacturing Department	2	13	2	5	4	1	2	1		
Shipbuilding Department										
Mast Store										
Rudder Store				3				2	1 (Greek)	
Cartwright and Scaffold Stores									1	1
Oar Store		1		2						
Ironsmith and Carpenter Stores		1		1	1					

Table 21. Active Factories, Store Houses and Their Administrative Officers with Their Ranks in the Imperial Naval Arsenal in 1870

As is seen, the Imperial Naval Arsenal acquired a more corporate structure, particularly after the establishment of the Ministry of Marine in 1867. The main tasks of each unit making up the administration of the Arsenal were explained in detail. Another document dated 12 September 1872 confirms the existence of sailcloth supply depots, carpenter, and caulking shops in addition to the above-mentioned store houses. The same document also gives an idea about the recruitment procedures. Following the applications by workers, who sought employment in the Yalıköşkü Factory and the factories and store houses of the Imperial Naval Arsenal, those who were successful in the first phase were to be subjected to a three-day trial process with no payment. After this stage, the decisions regarding their employment and future wages were made according to their performance during the trial, and the successful applicants were sent to the *Sıhhiye Dairesi* (the Medical Office) for medical examination. After they were pronounced fit by the Medical Office, they were approved by the naval board and their registration and admission protocols were sent to the Ministry of Marine.⁴⁵⁵

Their working hours are clearly stated in the code of practice of the Factories and Shipbuilding Department⁴⁵⁶ which is now preserved in the Naval Museum Commandership Archive in Istanbul. Accordingly, military and non-military personnel of the Imperial Naval Arsenal should be at work at a certain hour apart from holidays:

- Between March and October, they would work a total of nine hours between 7.30 am to 4.30 pm during the day.
- From April to the end of September, they would work a total of ten hours between 7 am and 5 pm during the day.
- From November to the end of February, they would work a total of eight hours between 8 am and 4 pm during the day.

⁴⁵⁵ DMA, MKT, 156-35 (12 September 1872).

⁴⁵⁶ DMA, TRS, 392-6A (28 April 1869); DMA, TRS, 392-13B (28 April 1869).

When it was necessary to work overtime, excluding the specified working hours for emergency work, those who worked overtime for four-and-a-half hours between April and September, or for five hours during the other months, would be eligible to receive a full day's wage. The overtime work was mostly carried out in the night-time which led to an exception in the pay, as it was calculated these extra working hours were worth only the equivalent of two hours' day work. However, it also caused performance issues both during the night of the overtime and the following day due to fatigue deriving from the lack of rest between shifts. Thus it was reasoned, in the same document, that giving a full day's wage for the equivalent of only two hours' work was not cost-effective for the already financially burdened naval treasury. Therefore the workers should not be employed except during regular working hours, unless there was an extremely important job.

Another document, which was prepared for the Finance Office, shows that the workforce of the Imperial Naval Arsenal was divided into two categories, permanent and temporary, on December 1869, influenced by the new arrangements on working hours.⁴⁵⁷ The same document also gives information about the names of all the manufacturing and construction stations, the number of workers, and their monthly salaries. Accordingly, the workforce of the Imperial Naval Arsenal consisted of a total of 5376 workers which included 4830 permanent and 546 temporary employees.⁴⁵⁸ The first group, which represented the labourers, was commissioned for the routine operations covering all manufacturing and shipbuilding activities and increasing their number and daily wages were strictly prohibited by order of the Ministry. However, workers who demonstrated their competence in their assigned positions could gain an

⁴⁵⁷ DMA, ŞUB, 53B-42A (December 1869). The date was not stated at the end of the document. However, we accepted it as December 1869 as the previous document in the same *defter* was written on 15 December 1869 while the next to our document was dated on 9 January 1870 (DMA, ŞUB, 1901, 53B-41B; DMA, ŞUB, 1901, 53B-49A).

⁴⁵⁸ DMA, ŞUB, 1901, 53B-47B (December 1869).

increase in their wages depending upon their contributions. The second group was employed for the urgent operations and completion of construction activities; their numbers and duration of employment were mainly dependent on the workload of the Imperial Naval Arsenal. It was also stated in the same document that there was another group of workers, called *meydan amelesi*, were not assigned to a permanent station, but mainly employed for the needs of all the factories and storehouses. In case of death or any other reasons, the responsibility to employ new workers was held by the directors of all the stations on the grounds that there would be no increase in the number of personnel and determined salaries. They would also be in charge of informing the Finance Office on the name, the daily wage of each employee, and their performance.⁴⁵⁹ The number of permanent and temporary workers, their total monthly salaries, and their assigned positions can be seen from the Table 22⁴⁶⁰, 23⁴⁶¹ and 24⁴⁶² respectively.

Table 22. Temporary Workers, Their Numbers and Monthly Salaries in 1869

Name of the Station	British Workers		Local Workers		Total Number of Workers	Total Monthly Salaries (in <i>kuruş</i>)
	Number	Salaries	Number	Salaries		
Construction of an Ironclad	37	71225	264	87794	301	159019
Construction of a Wooden Frigate	---		114	24278	114	24278
Repair of the Garment Storehouse and Boiler Factory	---		24	8736	24	8736
Construction of a Steamer in Aynalıkavak	---		107	27342	107	27342
TOTAL	37	71225	509	148150	546	219375

⁴⁵⁹ DMA, ŞUB, 1901, 53B-48A (December 1969).

⁴⁶⁰ DMA, ŞUB, 1901, 53B-46A; 53B-47B (December 1969).

⁴⁶¹ DMA, ŞUB, 1901, 53B-42A; 53B-43A (December 1969).

⁴⁶² DMA, ŞUB, 1901, 53B-43A; 53B-44A; 53B-45A; 53B-46A (December 1969).

Name of the Station	British Workers				Local Workers				General Total	
	Number of Workers		Total Monthly Salaries (in kuruş)		Number of Workers		Total Monthly Salaries (in kuruş)		Total Number of Workers	Total Monthly Salaries (in kuruş)
Iron Foundry Factory	---		---		159		61572		159	61572
Ironworks Factory	---		---		200		68208		200	68208
Armoury Factory	---		---		14		41160		14	41160
Yalıköşkü Factory	Master	Foreman	Master	Foreman	75		22792		92	60122
	1	16	4000	33330						
Repair Factory	Master	Foreman	Master	Foreman	52		16604		81	80614
	2	27	10000	54010						
Boiler Factory	Master	Foreman	Master	Foreman	178		72884		186	89604
	--	8	--	16720						
Smelt Factory	---		---		Master	Foreman	Master	Foreman	20	6794
					1	19	550	6244		
Pattern Factory	2		4180		10		--- ⁴⁶³		12	4180
General Total	53		122240		708		290014		764	412254

Table 23. Manufacturing Stations, Number of Workers and Their Monthly Salaries

⁴⁶³ Information related the amount of the monthly salaries of the local workers in the Pattern Factory was not written in the same document.

Name of the Station	Local Workers										Marines of Industry Corps	Total Number of Workers	Total Monthly Salaries (in kuruş)
											Number		
Mast Store	Screw Maker		Ironworker				Carpenter				---	9	3528
	Number	Salaries	Number	Salaries	Number	Salaries							
	3	980	4	1820	2	728							
Rudder Store	Carpenter										---	5	980
	Number					Salaries							
	5					980							
Cartwright Store	Patternmaker		Saddlemaker		Screwmaker		Scaffolder		Carpenter		22	48	8960
	Nu.	Sal.	Nu.	Sal.	Nu.	Sal.	Nu.	Sal.	Nu.	Sal.			
	2	840	6	2884	3	924	2	700	13	3612			
Carpenter Store	Carpenter										40	125	27524
	Number					Salaries							
	85					27524							
Lifeboat Store	Carpenter		Screwmaker		Caulker		Sawyer				45	149	27020
	Nu.	Sal.	Nu.	Sal.	Nu.	Sal.	Nu.	Sal.	Nu.	Sal.			
	81	21224	3	840	9	2184	11	2772					
Sail Cloth Store	Number					Salaries					42	55	6384
	13					6384							
Reel Store	Number					Salaries					34	38	1372
	4					1372							
Painting Factory	Number					Salaries					52	65	5628
	13					5628							
Pattern Factory	Number					Salaries					8	15	3220
	7					3220							
Barrel Store	---										29	29	---
Carpenter, Capstan, Oar, Pannier Store	---										40	40	---

Table 24. Construction Stations, Number of Workers and Their Monthly Salaries

Name of the Station	British Workers				Local Workers		Marines of Industry Corps	Total Number of Workers	Total Monthly Salaries (in kuruş)
	Number of Workers		Total Monthly Salaries (in kuruş)		Number of Workers	Total Monthly Salaries (in kuruş)	Number		
Hammer, Sheet and Angle Iron Factory	Master	Foreman	Master	Foreman	159	50974	---	169	75864
	1	9	3000	21890					
British Ironworks Factory for ironclads	Foreman	Riveter	Foreman	Riveter	110	39956	---	168	117074
	31	27	55110	22008					
Screwmaking Store	---				109	32214	24	133	32214
Caulking Store	---				95	28042	43	138	28042
Dry-docks	---				240	43735	95	335	43735
Ironworks Factory for Dry-docks	---				69	22960	9	78	22960
Screwmaking Store for Dry-docks	---				59	16870	14	73	16870
Caulking Store for Dry docks	---				36	11200	17	53	11200
Sawmill and Reel Store	---				1	420	36	37	420
Cabinetmaking Store	---				9	4592	75	84	4592
Engraving Store	---				8	5040	14	22	5040
General Total of Construction Stations	Master	Foreman	Master	Foreman	1161	340619	639	1868	442627
	1	67	3000	99008					

Table 24. Construction Stations, Number of Workers and Their Monthly Salaries

As seen from the above tables, the total number of the manufacturing and construction stations reached 22 by the end of the 1860s and Yalıköşkü, Repair, Hammer, Sheet, and Angle Iron Factories were dominated by the British workers; an ironworks factory was specially arranged for the employment of this group. The number of permanent workers excluding marines, who were commissioned in the Naval Industry Corps and served a number of days per year, in both manufacturing and construction stations appears as 1993 while the temporary workforce consisted of a total of 546 workers in 1869. This also indicates that while the British employees represent 6.07% of the total number of permanent hands, 93.9% is the total for the employment of local workers. In contrast to this, when the total monthly salaries of the local and foreign personnel are compared, it can be seen that in total 121 British workers were paid a total of 224248 *kuruş* (2038 pounds sterling) per month and local workers were qualified with a total monthly salaries of 630633 *kuruş* (5733 pounds sterling). This wide gap between the salaries of foreign and local personnel also appears in the monthly salaries of master foremen, as the monthly salary of a local master in the Smelt Factory was determined as 550 *kuruş*, while the average monthly wage of their British counterparts was around 4000 *kuruş*. The information illustrated by these tables also reveals that 1074256 *kuruş* (9765 pound sterling) was paid for all permanent and temporary workers on December 1869 and 12891072 *kuruş* (117191 pound sterling) was allocated from the annual budget of the naval treasury only for the wages of the workers employed in the Imperial Naval Arsenal.

As confirmed by the above-mentioned documents, towards the end of the 1860s, when implementation of new technologies such as plating the hulls of the vessels by armour were accelerated, there was an increase in the number of foreign workers

employed in the manufacturing and shipbuilding units of the Imperial Naval Arsenal. The procedure for the employment of foreign workers was slightly different from the domestic workers, and based on a well-prepared contract system. Demonstrating this, the contract of Daniel Rogers, who was a British foreman specializing in armour plating and employed in the construction of armoured ship units, included detailed information regarding foreign workers' employment conditions.⁴⁶⁴ Accordingly, the term of his contract was two years and the monthly salary was assigned as 56 pounds sterling. In addition to this, it was highlighted that the worker would never engage in tasks different from his job such as trading, never leave the work place as long as he was not sick, and obey the regulation of the unit to which he was appointed to. If there was a matter of disobedience, drunkenness, or other negative attitude or action contrary to the provisions of the contract, the Ministry had a right to fire the worker. If the Ministry found it unnecessary to extend the contract after the end of the specified period, or the worker did not request an extension for personal reasons, he would be informed with an official protocol one month before the termination day. If the extension was required by the Ministry, the worker would continue to serve in the Imperial Naval Arsenal, and be informed of the termination day in the same fashion as mentioned above. In the event of death or dismissal from work because of the above-mentioned breaches of contract during the period of employment, the daily wages would be paid until the date of death or dismissal, and the salary would be cut from the date of exit. In case the worker could not come to the work-place because of sickness, an official document confirming his illness would be requested from the health officers of the Ministry of Marine and the British embassy. Afterwards, he would be given a total of 30 pounds sterling as travel

⁴⁶⁴ DMA, TRS, 729-10-11 (23 August 1869).

allowance for his return journey from Britain to the Ottoman Empire and this would be paid back to the Naval Treasury by cutting three pounds sterling from his salary every month.⁴⁶⁵

As is seen, the articles of the contract were prepared to prevent the loss of working days and to keep the workers' performances at the highest level. The authority of dismissal was given to the units that the workers belonged to, and there was zero tolerance shown by the Ministry to extend the contracts of the workers who had no valid excuse for absence on working days.

Although the relations between local and foreign personnel seemed amicable until the end of the 1860s, the problems started to appear caused by the financial crisis; the debts of the Ottoman Empire reached up to 213,000,000 pounds sterling towards the end of the Sultan Abdülaziz's reign. As evidence of this, we found two archival documents that were sent from the Imperial Naval Arsenal to the Ministry of Marine on 25 January 1872⁴⁶⁶ and 4 June 1876.⁴⁶⁷ As is understood from the first document, local workers went on strike on grounds that their salaries were not paid at the appointed time. The other document also confirms the continuance of this problem, stating that while the salaries of foreign workers were paid on a regular basis, local workers were experiencing delays in their payments. For this reason, a slowdown strike was started by the local workers and this situation also led to a disturbing hostility between these two groups. To end this, it was stated in the same documents that the accrued salaries of the workers should be paid at short notice and the Finance Office of the Arsenal should be warned, as it was held responsible for the cause of the strike. This situation shows that a new working system, which was established in the naval factories using regulations

⁴⁶⁵ DMA, TRS, 729-10-11 (23 August 1869).

⁴⁶⁶ DMA, MKT, 148-3 (25 January 1872).

⁴⁶⁷ DMA, ISL, 2-46A (4 June 1876).

imported from Britain, fell short in terms of its deliverance. The influence of Britain over the naval industry can be seen also from Woods Pasha's observations with the following statements:

In 1867, and for a number of years afterwards, all the Chief Engineers and subordinates on board the Turkish ironclads were Britishers, as also those on board the two Imperial yachts. The Engineers of the ferry-boats running on the Bosphorus and to the Islands of the Marmora were Britishers as well, and English was the language of the engine room... A few years after my arrival, Turkish engineers who had been sent to England for a little training and others brought up under the engineers in the Dockyard, were coming to the front, and gradually all but the chiefs of the ironclads were superseded by them. The more ambitious amongst the Turks became very jealous of the positions held by the Englishmen on board the Imperial Yachts, on account of the special advantages connected with such service.⁴⁶⁸

He also mentions an incident, which describes the dependency of the Ottoman officers on the British engineers, in his memoirs. This account concerned a marine engineer called Joseph Arms, who was the chief engineer of the Sultan's yacht. Following his release from his job, he left the ship with the starting gear of the engine with his belongings and waited to be recalled. After a short time, an order arrived from the Palace, requiring the quick preparation of the yacht for the Sultan. Following the unsuccessful efforts made by the Turkish engineers to run the engine or to find the reason for its problem, it resulted in the reinstatement of Arms to the same position with a remark that his discharge was by mistake, and he was under the protection of the Sultan who issued an enactment confirming that he was never to be dismissed until he himself requested his removal from the service of the Ottoman Navy.⁴⁶⁹

This anecdote also emphasises the insufficiency of training carried out in the Naval Academy, which focused on theoretical training for the Departments of Machinery and the Shipbuilding, failing to give the cadets of these departments a

⁴⁶⁸ Woods, 1924b: 225-226.

⁴⁶⁹ Woods, 1924b: 225-227.

chance to experience practical training during their four years of education. In addition to the insufficient number of graduates, the rivalry between British and Turkish engineers resulted in the discontinuation of training after their graduation. As indicated by Wood's experience, in order not to lose their job, the British engineers and workers—who were employed with salaries that were considerably higher than their Turkish colleagues—declined to share their knowledge and experience, which caused a rift between these two main workforces. Therefore, the dependency of the Ottoman Navy on Britain continued until the end of the reign of Sultan Abdülaziz. By sending assistance to strengthen the Ottoman Navy, Britain intended the Ottoman Empire to be able to protect its waters without needing any alliance against Russia. However, this approach failed in operation and the fact regarding the definite failure of the Ottoman Empire in the absence of foreign military aid was confirmed with the Ottoman-Russian War of 1877-1878.

The Ottoman Navy in the Age of Ironclads

Shell Guns and the Emergence of Armoured Fleets (1853-1861)

The application of explosive shells to naval operations had the most remarkable impact in the emergence of ironclad warships, accompanied by a rapid acceleration in the construction of large war vessels, which paved the way for a dramatic change in the use of naval ammunition. Conforming to the prevailing tactics in naval warfare practiced for centuries, traditional solid shot was designed mainly for local damage, wrecking rigging and killing enemy crews, as the thick oak sides of wooden vessels could handle numerous hits, which enabled the crew to plug regular rounded holes left by the shot when it penetrated, meaning many accurate strikes would be required for the entire

destruction of a wooden vessel or forcing them to surrender.⁴⁷⁰ For this reason, absence of destructive explosive guns prompted navies to develop a strategy based on the protection of crew until the arrival of the Paixhans guns in the 1820s. Developed to fire explosive shells in a flat trajectory by French colonel Henri Joseph Paixhans between 1822 and 1823, this new type of ammunition enabled navies to destroy enemy ships rather than partially damaging them and also offered smaller powder charges which reduced the weight of the ordnance.⁴⁷¹ Following the trials carried out between 1823 and 1824, the results clearly indicated that an armed frigate equipped with a few heavy Paixhans guns could sink an ordinary wooden ship, which was enough to convince France to adapt these guns into her navy in 1824, in the hope of ceasing the British predominance in European naval warfare.⁴⁷² In contrast to the French experience, Britain's approach to Paixhans guns for naval operations took longer on account of an extended trial process which ended with the adaption of an 8-inch shell gun in 1838.⁴⁷³ After the decision made to suspend building iron ships in the Royal dockyards,⁴⁷⁴ the Board of Admiralty concentrated more on trials to examine the behaviour of iron under

⁴⁷⁰ Kinard, 2007: 235; Tucker, 2000: 78.

⁴⁷¹ Tucker, 2000: 79; Sondhaus, 2001: 22-23.

⁴⁷² Tennent, 1864: 227; Kinard, 2007: 236; Tucker, 2000: 79; Lambert, 2001: 51; Sondhaus, 2001: 23.

⁴⁷³ Tucker, 2000: 80; Sondhaus, 2001: 23.

⁴⁷⁴ The application of iron to naval industry initiated with the attempts made by a Scottish shipbuilder, John Laird and the first step taken in accordance with this purpose was the launch of *Nemesis*, the first iron vessel carrying guns built in Birkenhead Shipyard for the East India Company in 1839 (Halsted, 1861: 12; Tucker, 2015: 95; Sandler, 2004: 19-20; Osborne, 2004: 18). The success of Laird's ships attracted Admiralty's attention to iron vessels, which concluded with the decision pertaining to use of light iron for river operations. The increasing demand towards iron after the extension of railways was also effective as it reduced the cost of iron while led an increase in the number of skilled men in metal construction (Lambert, 2001: 47-48). After the Admiralty's order to build a regular iron ship, the construction of an iron hulled sloop by Ditchburn&Mare Company, was approved on August 1843. She was launched as *Trident* on December 1845 and *Birkenhead* built by Laird joined among the first iron hulled vessels of the Royal Navy in the same month (Jane, 1915: 219; Winfield, 2014: 314, 324; Walker, 2010: 79). Further orders were made for four large iron screw frigates from Napier and Ditchburn&Mare in the same year. However, building iron frigates without gaining sufficient experience was responded with an increasing criticism against the Board and overburdening the capacity of the Royal dockyards by these kinds of large vessels resulted in the abandonment of iron warships, which required further trials headed towards the safety of iron (Smith, 1938: 116; Jane, 1915: 219-220; Eardley-Wilmot, 1892: 43; Lambert, 2001: 49-50).

the effects of shot and to compare it with wood, together with the newly developed explosive shell guns and the experiments were directed by Captain Henry Ducie Chads. However, iron's durability against shells did not produce convincing results, revealing instead the impracticability of iron hulls when subjected to heavy gunfire. The trials revealed a tendency of the ironclads to fracture and the iron splinters produced by shot had a shrapnel-like effect, posing a serious threat for the crew.⁴⁷⁵ Further trials were made at Portsmouth from 1849 to 1851 under the direction of Captain Chads. While the first experiment made on 6 November 1849 to try the resistance of iron plates against musketry, canister and grape shot; $\frac{5}{8}$ inch thick large iron plates, representing a section of the iron steam frigate *Simoom*, were used for subsequent trials started on June 1850, implying that two or three shots striking near the waterline of an iron vessel were sufficient to endanger the ship.⁴⁷⁶ Carrying out six more experiments between 11 July 1850 and 12 August 1851, the Board was convinced that *iron vessels—however convenient and advantageous in other respects—were utterly unfit for purposes of war*. The results were summarized by General Sir Howard Douglas, a strong opponent of iron vessels, with the following statements:⁴⁷⁷

Thus, it appears that the destructive effects of the impacts of shot on iron cannot be prevented. If the iron sides are of the thickness required to give adequate strength to the ship ($\frac{5}{8}$, or at least $\frac{4}{8}$ of an inch), the shot will be broken by the impact; if the iron plates be thin enough to let the shot pass into the ship without breaking, the vessel will be deficient in strength.

⁴⁷⁵ Arnold, 2000: 49; Tucker, 2000: 64; Osborne, 2004: 18. In the official report of Captain Chads dated 1842 in Woolwich, these effects were explained with the following words: “*The shot going through the exposed or near side generally makes a clean smooth hole of its own size, which might be readily stopped; but on the opposite side all the mischief occurs; the shot meets with so little resistance that it must inevitably go through the vessel, and should it strike on a rib on the opposite side the effect is terrific, tearing off the iron sheets to a very considerable extent.*” (Jane, 1915: 220).

⁴⁷⁶ Douglas, 1855: 135-136; Tennent, 1864: 228. Between 1849 and 1850, Captain Chads informed the Admiralty with two additional reports, concluding that, “*iron could not be beneficially employed as a material for the construction of vessels of war as shot of every description in passing through iron plates made such large holes, which were improper for the bottom of ships*” (Jane, 1915: 223).

⁴⁷⁷ Douglas, 1855: 143-144.

In consequence, the Board decided the entire rejection of iron and seventeen iron ships under construction were condemned while the existing ones were employed as troopships.⁴⁷⁸ This idea was consolidated by the loss of *Birkenhead* on 26 February 1852 on South African coasts⁴⁷⁹ and led to the continuation of the doubtful approach of the Royal Navy towards iron until the middle of the 1850s⁴⁸⁰, when the supremacy of the new naval armament technology was proved in the Crimean War.⁴⁸¹

Since the beginning of the war, the Russian fleet commanded by vice admiral Pavel Stepanovich Nakhimov was actively cruising along the eastern part of the Black Sea between Sinop and Sohum with a force of three line-of-battle ships, two brigs and one steamer. On 5 November 1853, an Ottoman squadron, consisting of seven frigates, three corvettes and two transport steamers, proceeded to Black Sea under the command of vice admiral Osman Pasha so as to ensure the security of shipping between Istanbul and Batumi.⁴⁸² Being aware of the need for an immediate victory to compensate the failure of her army in the Battle of Oltenitsa on 4 November 1853 in the Danube front⁴⁸³, Russia decided to target Turkish squadron, which was forced to anchor in the port of Sinop on 13 November 1853 due to a severe storm. Another force of three 120-

⁴⁷⁸ Douglas, 1855: 145-147; Eardley-Wilmot, 1892: 44-45; Jane, 1915: 223; Tucker, 2000: 64-65; Lambert, 2001: 51; Osborne, 2004: 18.

⁴⁷⁹ Following her conversion as a troopship in 1848, *Birkenhead* was commissioned for South Africa with a crew of 487 officers and men together with 25 women and 31 children. After Cape Town, she proceeded to Algoa Bay and hit an uncharted rock on the morning of 26 February 1852 near False Bay, leading her to be broken in two and sink in a short time (Paine, 2000: 20).

⁴⁸⁰ Eardley-Wilmot, 1892: 43-44; Tucker, 2015: 95.

⁴⁸¹ The war started between the Ottoman Empire and Russia in July 1853 when Wallachia and Moldavia were occupied by the Russian army after the refusal made by the Sublime Port against Russian demands, which involved the recognition of Russian protection over the Empire's entire Orthodox population consisting of around 12 million people at that time. Being failed to procure acceptance for the withdrawal of Russian troops from the Danube, Sultan Abdülmecid declared war against Russia on 4 October 1853 (Anderson, 1952: 578; Lambert, 2011: 54-58; Badem, 2010: 99).

⁴⁸² The name of the ships composing the fleet were as follows: (Frigates) *Avnillah*-50 guns (flagship), *Nizamiye*-64 guns, *Nesim-i Zafer*-48 guns, *Fazlullah*-48 guns, *Navek-i Bahri*-42 guns, *Dimyat*-42 guns, *Kaid-i Zafer*-22 guns; (Corvettes) *Necm-i Efşan*-22 guns, *Fevz-i Mabud*-22 guns, *Gül-i Sefid*-22 guns; (Transport Steamers) *Ereğli*-10 guns, *Taif*-12 guns (Anderson, 1952: 579-580; Badem, 2010: 116-117; Lambert, 2011: 94).

⁴⁸³ Badem, 2010: 108-109.

gun three-deckers and two frigates were secured from Sevastopol and included in the Nakhimov's fleet on 28 November 1853. Unlike the others, these ships were equipped with thirty eight Paixhans guns. The attack started on the morning of 30 November 1853 at 11:30 and within a few hours, six Russian battleships with over 600 guns destroyed the entire Ottoman fleet, apart from the steamer *Taif*, which managed to escape. *Nesim-i Zafer*, *Avnillah* and *Fevz-i Mabud* ran aground and were later burnt by the Russians and the rest were blown up during the action. The total number of Ottoman losses was around 2000 apart from 156 men imprisoned by the Russians, who lost only 36 men including one officer. In the Battle of Sinop, the destructive effect of shell-fire upon wooden vessels was proved for the first time, which revived the world interest in iron ships for protection against shell guns.⁴⁸⁴ Sinop also produced a long-term alliance of the Ottoman Empire with Britain and France as an Anglo-French ultimatum sent for the withdrawal of Russian troops from the Danube and following its refusal, both countries were involved in the war as allied countries of the Empire on 28 March 1854.⁴⁸⁵

The necessity of armour protection for line-of-battle ships commenced the construction of five armour-plated floating batteries ordered by the French Emperor Louis Napoleon III for service in the Black Sea on 4 October 1854. They were wooden vessels of 1400 tons displacement and their sides above the water line were plated with a well supported 4½ inch of iron together with a backing of 17 inch of timber, a thickness specified to resist 32-pounder shot at 300 yards, after the experiments

⁴⁸⁴ Anderson, 1952: 580; Badem, 2010: 120-123; Lambert, 2011: 94; Tennent, 1864: 223; Watts, 1911: 892; Jane, 1915: 223-224; Potter et al., 1981: 116; Tucker, 2000: 85-86, 101; Sondhaus, 2001: 58; Osborne, 2004: 20; Sandler, 2004: 21.

⁴⁸⁵ Stone, 2006: 18; Badem, 2010: 100-101; Anderson, 1966: 131.

conducted on board *Excellent* at Portsmouth on September 1854.⁴⁸⁶ For the same service, the construction of four similar ships was begun by the British Government. Although these vessels, later named the *Glatton*, *Meteor*, *Thunder* and *Trusty*, could not be completed in time to engage in an action during the war, three of the French batteries named the *Dévastation*, *Lave* and *Tonnant* were sent to the Crimea, where they took part in a large fleet, consisting of unarmed wooden ships and most of them were sailing line-of-battle vessels.⁴⁸⁷ On 17 October 1855, these batteries took part in an action on Russians' Kinburn forts and fired 3,177 shot and shell, causing the entire destruction of the forts in a very short time. While two men were killed and twenty five wounded, all on board the floating batteries, the Russians lost forty five killed and 130 wounded. Iron's durability against shot and shell was proved as the wrought iron plates of the batteries were merely dented against Russian shot and shell, mainly 32-pounder and 18-pounder, marking the end of the wooden line-of-battle ships and the beginning of a new ironclad race between Europe's leading naval powers.⁴⁸⁸

Under the influence of the Battle of Kinburn, the British Government ordered the construction of four more armoured batteries, named the *Etna*, *Erebus*, *Terror* and *Thunderbolt*. On the French side, no order was made for further construction of screw battleships after 1855 and the design of existing vessels were modified in compliance with the new technology. In January 1857, Stanislas Dupuy de Lôme was appointed as the chief constructor and six additional ironclads were ordered in March 1858. De Lôme commenced the transformation of the *Napoleon*, a two decker wooden line-of-battle

⁴⁸⁶ Tennent, 1864: 228-229; Eardley-Wilmot, 1892: 46; Wilson, 1896: xxxii; Watts, 1911: 892; Lambert, 2001: 52; Sondhaus, 2001: 61; Tucker, 2011: 330. These experiments were instituted at the suggestions of French Government after the armour-plated batteries were ordered to a British design on 4 October 1854 (Tennent, 1864: 228).

⁴⁸⁷ Watts, 1911: 892; Jane, 1915: 224-225; Lambert, 2001: 52.

⁴⁸⁸ Tennent, 1864: 229; Eardley-Wilmot, 1892: 47-48; Wilson, 1896: xxxv-xxxvi; Watts, 1911: 892; Jane, 1915: 225; Potter et al., 1981: 116; Tucker, 2011: 330; Lambert, 2001: 52; Sondhaus, 2001: 61; Sandler, 2004: 21-22.

ship, into an ironclad. According to the plans completed in November 1857, ship was cut down to a single deck and fitted with a complete belt of 4½ inch armour on a backing of 26 inch of wood. Having a displacement of 5630 tons, the world's first sea-going ironclad was renamed *Gloire* and launched in November 1859.⁴⁸⁹ Two other ships of the same design, *Normandie* and *Invincible* were launched in March 1860 and April 1861 and the first fleet of French ironclads were formed with the launch of the *Magenta*, *Solferino* and *Couronne* in 1861.⁴⁹⁰

In contrast to the French experience, steps were taken more deliberately to prepare the construction of an experimental sea-going ironclad on the British side and trials continued to be carried out at Woolwich until May 1858, when the news of the *Gloire* reached Britain. Alarming the Admiralty, the necessity to embody the same number of French ironclads in the Royal Navy created pressure from the Queen and the Surveyor of the Royal Navy, Sir Baldwin Wake Walker⁴⁹¹ submitted his proposal in the same year, which was the programme of the construction of six ironclads, even though he was not in agreement with the idea of the replacement of wooden vessels with armoured ships.⁴⁹² On 27 January 1859, the design for an armoured frigate with 36 guns was issued to outmatch the *Gloire* and Thames Ironworks and Robert Napier were selected by the Chief Constructor, Isaac Watts among the tenders from fourteen private companies.⁴⁹³ Fourteen months after her French opponent, the first British-built iron-hulled warship, *Warrior* was laid down on 25 May 1859 and launched on 29 December 1860. Compared to *Gloire*, she was a larger ship with 9137 tons of displacement and her

⁴⁸⁹ Eardley-Wilmot, 1892: 49; Watts, 1911: 892; Potter et al., 1981: 118; Lambert, 2001: 53; Sondhaus, 2002a: 50-51; Tucker, 2000: 66-67; Osborne, 2004: 20; Sandler, 2004: 22; Wooley and Clarke, 2006: 14.

⁴⁹⁰ Watts, 1911: 892; Sondhaus, 2002a: 51-52.

⁴⁹¹ As mentioned in Chapter 1, he was in the service of the Ottoman Navy between 1838 and 1844 and known as Yaver Pasha.

⁴⁹² Tucker, 2000: 68; Lambert, 2001: 54; Sondhaus, 2002a: 52.

⁴⁹³ Jane, 1915: 250; Lambert, 2001: 55-56.

hull measured 380 feet by 58 feet, 6 inches. She was covered with 4½ inch iron plates from the upper deck to 5 feet below the load waterline, secured by a wooden backing of 18 inches and mounted with a trunk engine, developed by John Penn. When she was completed in October 1861, nine more armoured frigates were under construction and at the end of 1861, the number of armoured ships in the Royal Navy matched France's total of 16 ironclads, which were similar to Britain's smallest ships in displacement, clearly indicating the continuation of British superiority in European naval warfare. The creation of the modern warship also meant the starting of an ironclad race between the world's naval powers after the 1860s.⁴⁹⁴ In 1861, two armoured frigates of 5700-tons were ordered for the Royal Italian Navy, followed by two entirely iron corvettes built at La Seyne dockyard in France. Austria joined the ironclad race in October 1861 by ordering three 3600-ton armoured frigates and two large vessels were converted to armoured frigates by the Russian Navy, which later ordered three iron hulled coast defence ships.⁴⁹⁵

The Modernization of the Naval Fleet and the Armoured Vessels that Constituted the Ottoman Navy

Rapid developments observed in the European naval warfare in the first half of the nineteenth century had remarkable effect on the strategic power of the Ottoman Navy and the new era started by the enthronement of Sultan Abdülaziz pioneered the emergence of the Ottoman armoured fleet. From the early period of his reign, the biggest obstacle to the realisation of Abdülaziz's intentions was the financial crisis and for this reason, some of the dignitaries from the Sublime Port warned the Sultan not to

⁴⁹⁴ Watts, 1911: 892; Sondhaus, 2002a: 53; Lambert, 2001: 57-58.

⁴⁹⁵ Sondhaus, 2002a: 54-55; Lambert, 2001: 58.

place a new burden on the treasury. However, Sultan Abdülaziz, determined to achieve his targets in the field of maritime expansion and had been persuaded of the necessity of a strong naval power by Vesim Pasha,⁴⁹⁶ the commander of the *Saik-i Sadi* vessel, wholly disregarded these recommendations.⁴⁹⁷

His determination to increase the capacity of the naval fleet also appears in the letters of Henry Bulwer, the British Ambassador in Istanbul between 1858 and 1865. In his first letter sent to Lord Russell—Foreign Secretary in the Palmerston government between 1859 and 1865—on 3 July 1861, the new Sultan of the Empire was described as having “*the earnest desire to get his country out of its fallen condition and also a great readiness to take himself an active part in the reforms he wished to bring about.*”⁴⁹⁸ Another letter dated 21 August 1861 shows this determination more clearly, stating that the Sultan shared his opinions with Bulwer regarding the strengthening of the naval fleet to start a new era, which would unite his country with Europe, and act together with Britain as allies in the case of war at sea. In fact, this can be regarded as the starting point of negotiations between the Empire and Britain, eventually resulting in receiving aid for the early steps of the naval modernization. It can be seen from the same correspondence that the British approach on this matter was quite deliberate at first, as the first suggestion made by the British Ambassador to the Sultan was to find new resources to support the treasury instead of enlarging the naval fleet. He was also advised to set the finances straight in order to be able to execute the intended reforms.⁴⁹⁹

⁴⁹⁶ Langensiepen and Güleriyüz, 1995: 2.

⁴⁹⁷ Conversely, the Grand Vizier Keçecizade Fuad Pasha showed a negative approach to the expenditures on the renewal of the navy due to the financial crisis and the following Grand Vizier Kıbrıslı Mehmed Emin Pasha, who tried to warn the Sultan by objecting to the expenses on high priced ships purchased from foreign countries, and thus was dismissed from his duty (Ayın and Göksu, 2002: 822).

⁴⁹⁸ TNA, PRO, 30-22-89, 171 (3 July 1861).

⁴⁹⁹ TNA, PRO, 30-22-89, 197-198 (21 August 1861).

Another letter was sent to Lord Russell by Bulwer regarding the visit of the Kapudan Pasha (Damat Mehmet Ali Pasha) with the Sultan to discuss the Sultan's desire to purchase a yacht, a frigate, and five corvettes which would be paid for out of the Sultan's own privy purse and by the Valide Sultan's own allocation, to be donated to the government. On 28 November 1861, the British Government was informed by the Ambassador again about the Ottoman Government's request to send a commission for making the necessary arrangements for building the vessels the Sultan desired to have constructed in Britain.⁵⁰⁰ This request was responded to by the Admiralty's inspection report, explaining that the yacht resembling the *Victoria and Albert* that the Sultan requested was too expensive to be useful for other purposes. Instead, the report suggested, the state should turn its attention to frigates and sloops which were fast and had a high gun-carrying capacity. Afterwards the Ottoman Navy could obtain more effective and economical vessels and the attention could be paid to "*the financial details which would tend more to strengthen the Sultan's power than any ships of war.*"⁵⁰¹

As understood from a document dated 3 May 1862, the success of ironclads during the American Civil War was also influential on the early attempts of Sultan to build iron-hulled warships. Including mostly Admiral Mehmet Pasha's observations made regarding the progress of naval technology in London, it was highlighted in the same document that the weakness of wooden vessels has been proved by the success of the Confederate States Navy against the North in a naval war and an acceleration was observed in the replacements of wooden three-decker and double-decker ship-of-the-

⁵⁰⁰ TNA, PRO, 30-22-89, 333 (28 November 1861).

⁵⁰¹ TNA, PRO, 30-22-116, 72-73 (2 December 1861); TNA, PRO, 30-22-89, 197-198 (21 December 1861).

lines with iron hulls in Britain.⁵⁰² For this reason, the construction of an ironclad in London was approved with an imperial decree providing that the expenditures would be met from the Sultan's private purse.⁵⁰³ This war mentioned in the document was the Battle of Hampton Roads, which took place between the Union and Confederate States' Navies on March 1862 and clearly revealed the obsolescence of wooden vessels by the full potential of ironclads.⁵⁰⁴ From this date forward, military reforms were headed towards the purpose of enlarging the naval fleet and half of the *Hazine-i Hassa* allocation amounting to 254,238 pounds sterling was donated to the allocation of the naval treasury by the Sultan in the fiscal year of 1863.⁵⁰⁵ The number of existing ships, inherited from the period of Sultan Abdülmecid was 48, including seven ship-of-the-lines, six frigates, four corvettes, four gunboats, and 27 transport vessels.⁵⁰⁶ These ships were modernized in Sultan Abdülaziz's era and some were sent to Britain to be fitted with steam engines.⁵⁰⁷ The most important ships of this period were ironclads, whose usage was allowed in the navy from 9 April 1862.⁵⁰⁸ In parallel with this, the public was

⁵⁰² A letter, which was sent to the Duke of Somerset from the Admiralty on 7 June 1861, confirms the statements written in the abovementioned document, stating that preparing the frame of ships in iron was deemed more convenient to carry heavy guns in the Mediterranean Squadron by the Admiralty and works to prepare wooden vessels for plating was underway since 1861. Somerset was also acquainted that some three-deckers ships would be cut down for plating in case of an immediate action (TNA, PRO, 30-22-24, 7 June 1861).

⁵⁰³ BOA, A.MHM.NZD, 416-20 (3 May 1862).

⁵⁰⁴ The battle began on 8 March 1862, when CSS *Virginia*—the first steam-powered ironclad built by the Confederate Navy—steamed into the Hampton Roads, targeting the wooden Union fleet. Within a few hours, USS *Congress* and *Cumberland* were destroyed and USS *Minnesota* had run aground while the Confederate loss was only 27 men killed or wounded throughout the entire fleet. On 9 March, *Virginia* moved again to attack *Minnesota*, still aground. However, she was met by the USS *Monitor*, which was the only ironclad in the Union Navy and commissioned to defend *Minnesota* (Davis, 2006: 3). The clash between *Virginia* and *Monitor* was the first meeting in combat of ironclads and marked a turning point in the history of modern naval warfare as the success of ironclad warships was greatly recognized by globe and the construction of wooden ships was ceased by the prominent naval powers, Britain and France.

⁵⁰⁵ Karal, 2003: 190.

⁵⁰⁶ Panzac, 2009: 333.

⁵⁰⁷ The most important warships of the Ottoman Navy in 1860 were as follows: Ship-of-the Lines-*Kosova*, *Fethiye*, *Şadiye*, *Peyk-i Zafer*, *Mahmudiye*, *Teşrifîye*, *Mukaddeme-i Hayr*, Frigates-*Şerafettin*; Corvettes-*Mesir-i Ferah*, *Burc-ı Şeref*, *Sinop*, *İzmir*, *Alayış-i Derya*, *Necat-ı Fer*; Brigs-*Fecr-i Sefid*, *Kavi Zafer*, *Şerefnüma*, *Feth-i Hüner*, *Ahter*, *Tab-ı Dar*, *Tir-i Zafer*, *Ferahnüma* (Zorlu, 2009: 154).

⁵⁰⁸ DMA, ŞUB, 36A-100A (9 April 1862).

informed regularly through the military articles, which were published in the section of navy of the *Ceride-i Askeriye*, regarding the importance of ironclads and the naval modernization to be implemented by the Sultan. In the first issue of the military paper, dated 17 January 1864, it was reported that the existing officers, who had been assigned to the ships with the title of *Hoca*, were to be divided into four classes: the clerkships of Ship-of-the lines, Frigates, Corvettes, and Brigs, and these officers were given the military ranks of major colonel, lieutenant and sub-lieutenant respectively.⁵⁰⁹ In the third issue of the *Ceride-i Askeriye*, published on 31 January 1864, it was stated that the ships of the Ottoman Navy were divided into three classes according to their functions: *Sefain-i Safiyye* (war ships), *Sefain-i Muhafaza* (coast guard ships), and *Sefain-i Nakliye* (transport vessels). Underlining the modernization of the warships, the Sultan expressed his view in the same article that the battleships available in the navy were not equivalent with the developed condition of European navies, and therefore it was obligatory to abandon the building of wooden ships and to adopt the construction of ironclads. He pointed out that the Imperial Naval Arsenal was deprived of technical infrastructure needed for the building of armoured ships, and the numbers of slipways in the other existing shipyards of the Empire were insufficient. Because of this reason, he stated that the construction of new ships would be continued in the shipyards and the ironclads would be bought from Europe when needed.⁵¹⁰ To demonstrate this, the following table shows the ironclads constructed for the Ottoman Navy between 1864 and 1876, with their several features:⁵¹¹

⁵⁰⁹ *Ceride-i Askeriye*, 'Mevadd-ı Bahriye', 1, 17 January 1864.

⁵¹⁰ *Ceride-i Askeriye*, 'Mevadd-ı Bahriye', 3, 31 January 1864.

⁵¹¹ *Turkey, Greece and Roumania, War Vessels and Torpedo Boats*, Admiralty, Intelligence Department, 1891: 12-40; King, 1878: 265; King, 1881: 340; *L'Année Maritime, Revue Des Evénements Et Répertoire Statistique Annuel*, Troisième Année 1878, 1879: 348; Langensiepen and Güleriyüz, 1995: 133-139; Lyon, 1979: 389-393.

Date of Launch	Name–Official Classification	Type	Displacement in tons	Complement	Built at	Builder – Maker of Engine	Remarks
1864	Aziziye	Broadside ironclad	6400	640	Glasgow	Napier&Sons	Repaired and Re-armed: 1890-1891 Decommissioned: 1909 Sold: 1923
1864	Mahmudiye	Broadside ironclad	6400	640	Blackwall	Thames Iron Works – Ravenhill&Co	Repaired and Re-armed: 1892-1894 Decommissioned: 1909 Sold: 1913
1864	Osmaniye	Broadside ironclad	6400	640	Glasgow	Napier&Sons	Repaired and Re-armed: 1890-1891 Decommissioned: 1909 Sold: 1923
1864	Orhaniye	Broadside ironclad	6400	640	Glasgow	Napier&Sons	Refitted: 1892-1894 Decommissioned: 1909 Sold: 1913
1865	Feth-i İslam	River Monitor	335	45	La Seyne	Forges et Chantiers de la Méditerranée	Refitted: 1884 Decommissioned: 1908 Sold: 1909
1865	Semendire	River Monitor	335	45	La Seyne	Forges et Chantiers de la Méditerranée	Renamed <i>Memduhiye</i> : 1879 Decommissioned: 1902 Sold: 1909
1865	İşkodra	River Monitor	335	45	La Seyne	Forges et Chantiers de la Méditerranée	Captured by Russian forces at Nebula on 6 October 1877
1865	Podgoriçe	River Monitor	335	45	La Seyne	Forges et Chantiers de la Méditerranée	Captured by Russian forces at Nebula on 6 October 1877
1865	Böğürtlen	River Monitor	335	45	La Seyne	Forges et Chantiers de la Méditerranée	Decommissioned: 1880 Sold: 1886
1868	Necm-i Şevket	Central battery ironclad	2080	170	La Seyne	Forges et Chantiers de la Méditerranée	Repaired and Reboilered: 1886-1890 Decommissioned, broken up: 1929

Table 25. Armoured Vessels of the Ottoman Navy Constructed in the Reign of Sultan Abdülaziz (1861-1876)

Date of Launch	Name–Official Classification	Type	Displacement in tons	Complement	Built at	Builder – Maker of Engine	Remarks
1868	Asar-ı Şevket	Central battery ironclad	2080	170	La Seyne	Forges et Chantiers de la Méditerranée	Repaired and Reboilered: 1886-1890 Decommissioned: 1903 Breaking Up: 1909
1868	Asar-ı Tevfik	Barbette Battery Ironclad	4687	220	La Seyne	Forges et Chantiers de la Méditerranée	Repaired and Reboilered: 1890-1892 Went aground and became total loss near Çernes: 1913
1868	Fatih	Broadside ironclad	6127	1200	Blackwall	Thames Iron Works – Maudslay, Sons&Field	Purchased by Prussia on 6 February 1867
1868	Hıfzurrahman	Coast Defence Turret Ship	2540	130	Bordeaux	SA des Chantiers et Ateliers de la Gironde	Refitted: 1891-1894 Decommissioned: 1909 Sold: 1909
1869	Lütf-i Celil	Coast Defence Turret Ship	2540	130	Bordeaux	SA des Chantiers et Ateliers de la Gironde	Sunk by a Russian field guns near Danube in 1877
1869	Avnillah	Casemate Ironclad	2080	140	Blackwall	Thames Iron Works – Maudslay, Sons&Field	Refitted: 1903-1906 Sunk by a gunfire by an Italian cruiser in 1912
1869	Muin-i Zafer	Casemate ironclad	2080	140	Poplar	Thames Iron Works – Maudslay, Sons&Field	Refitted: 1903-1906 Decommissioned: 1932 Breaking Up: 1934
1870	Feth-i Bülend	Central battery ironclad	2806	180	Blackwall	Thames Iron Works – Humphrys, Tennant&Co	Refitted: 1903-1907 Sunk by a torpedo by a Greek torpedo-boat at Thessaloniki in 1913
1870	İclaliye	Barbette battery ironclad	2266	180	San Rocco	SA Stabilimento Tecnico Triestino – Ravenhill&Co	Refitted: 1891 Commissioned at Heybeliada for the Naval Academy: 1914 Decommissioned and sold: 1928

Table 25. Armoured Vessels of the Ottoman Navy Constructed in the Reign of Sultan Abdülaziz (1861-1876)

Date of Launch	Name – Official Classification	Type	Displacement in tons	Complement	Built at	Builder – Maker of Engine	Remarks
1871	Nusretiye	Central battery ironclad	6594	350	Istanbul	Imperial Naval Arsenal - Maudslay, Sons&Field	Renamed as <i>Hamidiye</i> in 1881 and re-launched in 1885 Commissioned as the stationary training vessel for torpedo-boats: 1894 Sold: 1913
1872	Hizber	River Monitor	404	45	Istanbul	Imperial Naval Arsenal	Refitted: 1886 Decommissioned: 1909
1872	Mukaddeme-i Hayr	Central battery ironclad	2806	180	Istanbul	Imperial Naval Arsenal	Commissioned as a school ship: 1911 Decommissioned: 1923
1873	Seyfi	River Monitor	404	45	Istanbul	Imperial Naval Arsenal	Sunk by a Russian torpedo cutter near Maçın on 26 May 1877
1874	Mesudiye	Central battery ironclad	9120	700	Blackwall	Thames Iron Works – Maudslay, Sons&Field	Refitted: 1898-1903 Disbanded from active fleet: 1914 Sunk by a British submarine: 1914
1875	Mahmudiye	Central battery ironclad	9120	654	Blackwall	Thames Iron Works – Maudslay, Sons&Field	Renamed as <i>Hamidiye</i> in 1876 Purchased by Britain on 20 February 1878 and entered the service of the Royal Navy as <i>Superb</i> in 1880
1876	Peyk-i Şeref	Armoured ram	4870	250	Poplar	Samuda&Son – Maudslay, Sons&Field	Purchased by Britain on 13 February 1878 and renamed as <i>Belleisle</i> to be commissioned in the Royal Navy in 1878
1878	Burc-ı Zafer	Armoured ram	4870	250	Poplar	Samuda&Son – Maudslay, Sons&Field	Purchased by Britain on 13 February 1878 and became <i>Orion</i> to enter the service of the Royal Navy in 1882

Table 25. Armoured Vessels of the Ottoman Navy Constructed in the Reign of Sultan Abdülaziz (1861-1876)

As is seen, 27 armoured ships were added to the Ottoman Navy, including seven central battery ironclads, five broadside ironclads, two barbette battery ironclads, two casemate ironclads, two coast defence turret ships, two armoured rams and seven river monitors. In 1867, this numbered decreased to 26 after *Fatih* was purchased by Prussia on 6 February 1867.⁵¹² While 12 of the armoured vessels were purchased from Britain, 10 were built in French dockyards and one was ordered from an Austrian shipbuilding company. The *Necm-i Şevket*, *Asar-ı Şevket*, *Asar-ı Tevfik*, *Hıfzurrahman* and *Lütf-i Celil* were purchased from France by the governorship of Egypt and transferred to the Ottoman Navy on 29 August 1868.⁵¹³ Apart from purchased ships, two central battery ironclads named *Nusretiye* and *Mukaddeme-i Hayr* and two river monitors, *Hizber* and *Seyfi* were constructed in the Imperial Naval Arsenal after 1870. As a result of these efforts, the total tonnage displacement of armoured vessels reached 88,622 tons towards the end of this period, which rendered the Ottoman Navy to be the third-largest navy in Europe in terms of the number and quality of the vessels in 1876.⁵¹⁴

According to an archival document, dated 24 May 1875, the total number of ships in the navy reached 111, composed of 26 armoured ships and 85 wooden and armour-plated vessels towards the end of the reign of Sultan Abdülaziz,⁵¹⁵ which corresponds to the number of armoured vessels in the Ottoman Navy we presented in the above table. In addition to this, it was also stated in the same document that they were divided into five categories: consisting of 49 warships, the first, second and third categories were commissioned for the security of seashores and included the most

⁵¹² TNA, PRO, ADM, 12-796 (25 February 1867); Langensiepen and Güleriyüz, 1995: 133. Another document reveals the fact that *Fatih* designed by Sir Edward Reed, was first offered by the Thames Ironworks Shipbuilding Company for sale to the Admiralty as the Turkish Government failed to make payments in due course (TNA, PRO, ADM, 12-781, 13 October 1866).

⁵¹³ Langensiepen and Güleriyüz, 1995: 137; TNA, PRO, ADM, 12-831 (23 January 1869).

⁵¹⁴ King, 1881: 339.

⁵¹⁵ DMA, ŞUB, 88E-1A (24 May 1875).

important vessels. In the fourth category, 11 high speed ships were reserved for the urgent actions while 51 ships, including steamers and sailing vessels, would be used in the fifth category for the activities related to transportation.⁵¹⁶

In parallel with the increasing number of vessels in the navy particularly after 1864, meeting the coal needs for the operation of the ships appeared as an important problem. Being the richest region of the Empire in terms of coal reserves, the administration of the Ereğli Coal Mines had been assumed by Britain until the end of the Crimean War for the purpose of fulfilling the demands of the allied fleets. In the reign of Sultan Abdülaziz, mining rights were given to the Imperial Naval Arsenal in order to operate coal mines on behalf of the *Hazine-i Hassa* on 20 February 1865.⁵¹⁷ It was seen that the mines were modernized and a number of new mines were opened after this transfer. Additionally, there was an obligation of selling the whole coal extracted to the Imperial Naval Arsenal for the price designated by the Ministry of Marine for the miners from 1866 to 1882.⁵¹⁸ Despite these measures taken to avoid the necessity for importation of coal, the Ereğli Coal Mines were insufficient to meet the needs of the new navy and consequently coal had to be bought from Britain at high prices.

The sister ships *Mahmudiye* and *Mesudiye* and the sister ships *Peyk-i Şeref* and *Burc-ı Zafer* were the last vessels built for the Ottoman Navy during the reign of Sultan Abdülaziz. However, only *Mesudiye* was delivered to the Ottoman Empire in 1876 whilst the other three still under construction in Britain⁵¹⁹ due to the Ottoman-Russian War started on 24 April 1877.⁵²⁰ The primary measure taken by the British Admiralty against Russians negotiations with German and American companies to reinforce their

⁵¹⁶ DMA, ŞUB, 88E-1A (24 May 1875).

⁵¹⁷ Öğreten, 2007: 140.

⁵¹⁸ Öğreten, 2007: 143.

⁵¹⁹ King, 1878: 263.

⁵²⁰ Campbell, 1879: 417, 426.

naval fleet in terms of armament on the eve of war, was the enhancement the forces available to the Royal Navy by purchasing foreign ships under construction in British shipyards. During this period also known as Anglo-Russian war scare of 1878, above-mentioned Ottoman vessels were detained by the British Government under existing international law, and purchased by the Admiralty on February 1878.⁵²¹ Designed by Sir Edward Reed, *Mahmudiye*⁵²² entered the service of the Royal Navy in 1880 and was placed upon the list of British armoured ships under the name of *Superb*. In parallel with this, *Peyk-i Şeref* and *Burc-ı Zafer*, which had been designed formerly for the Ottoman Navy by the chief architect Ahmed Pasha, were commissioned as *Belleisle* in 1878 and *Orion* in 1882 respectively.⁵²³

Apart from these vessels, the river monitors named *İşkodra* and *Podgoriçe* were captured by the Russian forces in 1877 while another river monitor, *Seyfi* and the coast defence turret ship named *Lütf-i Celil* were sunk in the Ottoman-Russian War of 1877-1878.⁵²⁴ For this reason, the number of Ottoman armoured fleet decreased to 19 with a total displacement of 66,148 tons in 1878. The following table compares the effective strength of the armoured fleets in Europe by the end of the Great Eastern Crisis.

⁵²¹ Roberts, 1979: 18; Sondhaus, 2008: 63.

⁵²² She was launched as *Mahmudiye* in 1875 but later renamed as *Hamidiye* in 1876 (Langensiepen-Güleryüz, 1995: 136).

⁵²³ King, 1878: 124, 127, 263-264; Roberts, 1979: 18.

⁵²⁴ Langensiepen and Güleryüz, 1995: 137-140.

Table 26. Number of Ships, Total Tonnage Displacement and Number of Personnel in the Armoured Fleets of Europe in 1878⁵²⁵

Country	Number of Armoured Ships			Total Tonnage Displacement	Number of Personnel
	First-Class Ironclads	Second-Class Ironclads	Coastal Defence ironclads		
Britain	25	12	15	341,442	60,536
France	21	10	14	210,226	42,670
Ottoman Empire ⁵²⁶	7	7	5	66,148	18,159
Russia	3	4	22	92,550	28,311
Germany	9	---	3	63,127	7365
Italy	4	9	1	59,800	10,712
Austria	6	2	2	42,010	6319
Spain	4	5	2	46,768	11,310
Holland	2	---	21	38,660	1029 (officers)
Denmark	3	3	---	16,697	1259
Sweden	---	---	14	10,390	7794
Portugal	1	---	---	2479	4533
Norway	---	---	4	6540	2338
Greece	---	2	---	3834	269 (officers)

⁵²⁵ King, 1878: 124-127, 178-179 (Britain); King, 1878: 201-202 (France); King, 1878: 251-252, 257-259 (Russia); King, 1878: 226; King, 1881: 316-317 (Germany); King, 1878: 248; King, 1881: 298 (Italy); King, 1878: 272-273 (Austria); King, 1878: 282; King, 1881: 366 (Spain); King, 1878: 278-279 (Holland); King, 1878: 283; King, 1881: 369 (Denmark); King, 1878: 284; King, 1881: 435 (Sweden); King, 1881: 372-373 (Portugal); King, 1878: 285; King, 1881: 374 (Norway); King, 1881: 375-376 (Greece); *L'Année Maritime, Revue Des Événements Et Répertoire Statistique Annuel*, Troisième Année 1878, 1879: 306-307, 315-317, 332, 335-336, 342, 344-345, 348, 352, 356-357, 363-365. The ships, which were under construction in 1878, were not included in the table. In addition, the armoured fleets were divided into three categories according to their tonnages and assigned positions: first-class ironclads (sea-going fighting ships), second-class ironclads (lesser tonnage vessels for ordinary service) and coastal defence ironclads. For the names of the armoured vessels see appx.

⁵²⁶ *Turkey, Greece and Roumania, War Vessels and Torpedo Boats*, Admiralty, Intelligence Department, 1891: 12-40; King, 1878: 265; King, 1881: 340; *L'Année Maritime, Revue Des Événements Et Répertoire Statistique Annuel*, Troisième Année 1878, 1879: 348; Langensiepen and Güleriyüz, 1995: 133-139; Lyon, 1979: 389-393. The name of the vessels in the Ottoman Navy in each category can be listed as follows: *Mesudiye, Nusretiye, Aziziye, Osmaniye, Orhaniye, Mahmudiye, Asar-ı Tevfik* (first-class ironclads); *Feth-i Bülend, Mukaddeme-i Hayr, Avnillah, Muin-i Zafer, Asar-ı Şevket, Necm-i Şevket, İclaliye* (second-class ironclads); *Hıfzurrâhman, Hizber, Feth-i İslam, Semendire* and *Böğürtlen* (coastal defence ironclads). As mentioned in Chapter 4, the number of personnel assigned to warships, the Imperial Naval Arsenal and the naval industry corps was 15188 in 1870 (BOA, İ.DH, 626-43544). According to same document, the number of personnel in the same locations would reach 17390 in 1871. As we could not find an equally accurate document regarding the number of personnel at the end of the reign of Sultan Abdülaziz, we refer 18159, which was indicated as the total number of naval personnel including officers in the Ottoman Navy in 1875 by Panzac, 2009: 342.

As confirmed by the data, British maintained her preponderance as the most advanced naval power in the world⁵²⁷ as no other navy had a force of armoured vessels in commission near the size of Royal Navy's. The Ottoman Navy continued to be the third naval power of Europe in terms of tonnage and Russian Navy ranked fourth in importance, even though the numbers and total tonnage displacements of the armoured ships were higher than the Ottoman Empire. The primary reason for this can be explained with the quality of the vessels as the *Peter the Great* and the *Knaz Minin* were regarded as the only sea-going armoured ships complied with the standard fighting efficiency of 1870s in the Russian Navy, making the fleet numerous rather than powerful except for coast defence.⁵²⁸ When the Ottoman armoured navy were passivated based upon the negative influence of the Great Eastern Crisis, the position of the fleet in the ranking of European naval powers dropped to sixth place under Britain, France, Italy, Germany and Russia respectively in 1881.⁵²⁹

The Cost of Naval Modernization

Although the comprehensive naval modernization carried out during the reign of Sultan Abdülaziz provided a technically improved naval fleet, it placed a huge burden on the naval treasury. The Empire's finances were not in a good condition, especially after the Crimean War, as the extraordinary expenditures of the war had brought an additional burden of 11,200,000 pounds sterling to the treasury. As it appeared in the state budget of 1851-1852, there was a deficit between income and expenses of 519,781 pounds

⁵²⁷ In 1881, while the US Navy comprised 20 armoured ships with a total displacement of 53,500 tons, 12 armoured vessels amounting to 17,946 tons were included in the Brazilian Navy, followed by Chili (3 ships, total 8220 tons), Peru (2 ships, total 4200 tons) and Argentine (2 ships, total 1200 tons). In the Far East, Japanese Navy came into prominence with a force of 5 armoured ships amounting to 11,721 tons (King, 1881: 435).

⁵²⁸ King, 1878: 251.

⁵²⁹ King, 1881: 435.

sterling.⁵³⁰ To reduce this, financial constraints were placed on non-military expenditures and the first application was the launch of a temporary issue which was printed in March 1854 and called *ordu kaimesi*.⁵³¹ This temporary issue was valid only within the location of the army and would be demonetised at the end of the war. However, usage of this money was forbidden by the *Meclis-i Tanzimat*, apart from in the provinces of Silistre, Vidin, Erzurum, Van, and Trabzon and the *sanjaks* of Sofia, Niš, Samakov, Köstendil, Sinop, and Lazistan. Their utilization in non-military areas led to claims by *mültezims*⁵³² who purchased some treasury income in the provinces by tender, and then complained about their loss which was due to the divergence in value between the lira and the *ordu kaimesi*. During the war, *kaimes* were printed four times equally reaching 778,409 pounds sterling in total but increasing complaints from the provinces caused this practice to be abolished by the *Meclis-i Vala* on 2 April 1857.⁵³³

The other common method for the closure of the treasury's deficit was internal borrowing. For this purpose, government bonds, called as *esham-ı mümtaze*, offering 10% interest annually, were released in June 1854. Further to this, the Empire contracted debt from the brokers of Galata who received credit from financial circles of Europe with long-term and low interest opportunities, and lent this money as a short-term, high interest credit in the country. At that time, while the interest rates were generally 3-4%, the brokers charged interest of 12% for loans to the state. The tax revenues of Egypt and Western Anatolia were pledged as security in response to the

⁵³⁰ Özcan, 1997: 20-21. With the acceptance of the new regulation on Ottoman silver and gold coinage in 1844, the state abandoned debasements to increase fiscal income until 1922 (Pamuk, 2006: 16). Thus the exchange rate of the silver kuruş remained stable until the First World War and 1 pound sterling exchanged for 110 kuruş and was equivalent to 1,10 Ottoman golden Lira (Pamuk, 2002: 25).

⁵³¹ Issawi, 1980: 361.

⁵³² Şevket Pamuk, one of the best known Ottoman economic historians, supports these claims. According to his research, as a result of printing large amounts of *kaime* during the war, the nominal value of gold liras went down to less than half and one gold lira began to be equivalent to 200-220 piasters in *kaime* (Pamuk, 2006: 18).

⁵³³ Akyıldız, 2007: 12-13.

debt but it was not enough to cover the expenses and, therefore, the Ottoman Empire was forced to apply for external borrowing for the first time in its entire history.⁵³⁴

With the support of Britain and France, the first external loan was acquired through Palmer and Goldschmid Financial Institutions on 4 August 1854 by putting up the tax revenues of Egypt as collateral. This 5,000,000 pounds sterling loan was given with a 6% annual interest rate and a maturity date of 33 years. After deductions for insurance, commission, and transfer fees, the money credited to the Ottoman Treasury was 2,286,285 pounds sterling, less than half of the amount borrowed.⁵³⁵ This first external loan was followed by the 1855 loan which was obtained with the financial intermediation of the Rothschild Company and the guarantee of Britain and France on 27 April 1855. The tax income of Izmir and Syria were provided as collateral.⁵³⁶ In 1858, 5,000,000 pounds sterling was transferred to the treasury after the loan obtained from the Dent Palmer and Company in London. Towards the beginning of the 1860s, the Empire's debts reached 15,000,000 pounds sterling and according to the financial report prepared by the Lord Hobart and Mr. Foster, the annual amortisation payment was 1,578,000 pounds sterling in total.⁵³⁷

The Allocation of the Naval Treasury and Its Distribution

As mentioned in previous chapters, the structuring of the naval administration was formed with the purpose of developing the best policy of financial management whilst modernizing the naval fleet and personnel. As indicated by archival data, the officers commissioned in the various units of the navy were warned many times to avoid

⁵³⁴ Akyıldız, 2007: 14-15.

⁵³⁵ Sağlam, 2007: 8-10.

⁵³⁶ Anderson, 1964: 54-55; Akyıldız, 2007: 17; Özcan, 1997: 29.

⁵³⁷ Foster and Hobart, 1862: 17.

unnecessary expenses, and to spend the allocated income in an economical manner. To meet these requirements, new units were constituted especially for the management of expenditures within the body of the Ministry of Marine and the Imperial Naval Arsenal, with the goal of increasing the level of manufacturing, thus bringing to an end the dependence on foreign countries. However, administrative, educational, and technological modernization led new expenses to be incurred and this situation placed a huge burden on the naval treasury.

In the reign of Sultan Abdülaziz, a great portion spent for the allocation of the Ottoman Navy was reserved for technical modernization. Along with this, the salaries and provisions of the naval officers and marines, foreign and local workers commissioned in the Imperial Naval Arsenal, and the staff and the students of the Naval Academy had the biggest portion of the allocation from the available budget. The table below shows the allocation of the Naval Treasury between the fiscal years of 1859 and 1877:

Table 27. Budget Allocated for the Ottoman Navy between the Fiscal Years of 1859 and 1877

Fiscal Year		Total Amount of Budget (in <i>kuruş</i>)	Total Amount of Budget (in £)
Rumi	Gregorian		
1275	1859-1860	98,850,205 ⁵³⁸	898,638
1276	1860-1861	57,954,214 ⁵³⁹	526,856
1277	1861-1862	71,254,252 ⁵⁴⁰	647,765
1278	1862-1863	122,946,276 ⁵⁴¹	1,117,693
1279	1863-1864	105,178,679 ⁵⁴²	956,169
1280	1864-1865	102,102,817 ⁵⁴³	928,207
1281	1865-1866	---	---

⁵³⁸ Foster and Hobart, 1862: 17; Güran, 2003: 51.

⁵³⁹ Güran, 1989: 72; Güran, 2003: 53.

⁵⁴⁰ Güran, 1989: 72; Güran, 2003: 55; Güran, 2014: 339.

⁵⁴¹ Güran, 2003: 57. The amounts for the fiscal years of 1278, 1279, and 1280 were written as 121,716,540 ; 104,126,770 and 101,082,190 *kuruş* respectively in *House of Commons Parliamentary Papers, Statistical Tables relating to Foreign Countries. Compiled Chiefly from the Official Returns of the Respective Countries, part XI.*, 1867-1868, 346.

⁵⁴² Güran, 2003: 59.

⁵⁴³ Güran, 2003: 61.

Fiscal Year		Total Amount of Budget (in <i>kuruş</i>)	Total Amount of Budget (in £)
Rumi	Gregorian		
1282	1866-1867	75,000,000 ⁵⁴⁴	681,818
1283	1867-1868	75,000,000 ⁵⁴⁵	681,818
1284	1868-1869	83,700,500 ⁵⁴⁶	760,913
1285	1869-1870	107,632,500 ⁵⁴⁷	978,477
1286	1870-1871	88,315,500 ⁵⁴⁸	802,868
1287	1871-1872	82,646,500 ⁵⁴⁹	751,331
1288	1872-1873	80,000,000 ⁵⁵⁰	727,272
1289	1873-1874	125,000,000 ⁵⁵¹	1,136,363
1290	1874-1875	100,000,000 ⁵⁵²	909,090
1291	1875-1876	80,000,000 ⁵⁵³	727,272
1292	1876-1877	80,000,000 ⁵⁵⁴	727,272
1293	1877-1878	90,000,000 ⁵⁵⁵	818,181

As understood from the table, the allocation of the navy from 1859 to 1877 reached 14,778,003 pounds sterling and the average amount for expenses per year appears as 777,789 pounds sterling. The gradual increase observed in the allocation rates from 1861 can be explained with the financial measures taken by the Sultan between 1861 and 1863, and the remaining was mainly provided by the loans from foreign countries. To understand the distribution of expenses from the allocation reserved for the navy, we may refer to a document dated 19 April 1873 that lists all the expense items and indicates the total amounts allocated for each section.⁵⁵⁶

⁵⁴⁴ Güran, 2003: 64.

⁵⁴⁵ Güran, 2003: 66.

⁵⁴⁶ Öner, 2007: 92; Güran, 2003: 69.

⁵⁴⁷ Güran, 2003: 73; Öner, 2007: 92.

⁵⁴⁸ Güran, 2003: 75.

⁵⁴⁹ Güran, 2003: 78.

⁵⁵⁰ Güran, 2003: 81.

⁵⁵¹ DMA, MHS, 621-2 (19 April 1873); Güran, 2003: 84.

⁵⁵² Güran, 2003: 87.

⁵⁵³ Güran, 2014: 342; Güran, 2003: 90.

⁵⁵⁴ Güran, 2003: 96.

⁵⁵⁵ Güran, 2003: 98.

⁵⁵⁶ DMA, MHS, 621-2 (19 April 1873).

Table 28. The Allocation of the Naval Treasury in the Fiscal Year of 1873

Section	The Expense Item	Amount of Allocation (in <i>kuruş</i>)	Total Amount of Allocation for Each Section (in <i>kuruş</i>)
1	Salaries of the All Officers and Scribes in the Ministry of Marine	2,891,808	3,280,165
	Allocation for Their Provisions	182,061	
	Allocation for the Expenditures of the Ministry such as Stationery, Coal, etc.	206,296	
2	Salaries of the All Naval Officers and Marines	22,233,234	54,661,982
	Allocation for Their Provisions	24,470,107	
	Allocation for Their Uniforms	7,958,641	
3	Salaries of the Officers Commissioned in the Factories and other Manufacturing and Construction Stations	43,620	17,760,450
	Salaries of the Workers Commissioned in the Factories and other Manufacturing and Construction Stations	17,716,830	
4	The Prices of Coal for the Machineries in the Factories and Steamers and Iron-Steel to be used for the Construction and Repair Works in the Imperial Arsenal	23,326,275	23,326,275
5	The Prices of Gun, Gunpowder, etc. for the Armoured and Wooden warships	5,107,800	5,107,800
6	Salaries of the Staff Commissioned in the Naval Academy	742,212	1,720,275
	Allocation for Their Provisions	704,145	
	Allocation for Their Uniforms	273,918	
7	Allocation for the Naval Hospital	366,763	866,763
8	Salaries of the Officers Commissioned in the Office of Harbourmaster and Commercial Court	734,184	842,824
	The Salary of the Harbourmaster Rear Admiral Salih Pasha	26,905	
	Miscellaneous Charges	81,735	
9	Salaries of the Officers Commissioned in Bosphorus	527,724	593,492
	Salaries of the Captain and the Crew of the Lightship (positioned in Bosphorus)	38,513	
	Miscellaneous Charges and the Allocation for the Uniforms	27,255	
	Salaries of the Officers Commissioned in the Vessel Positioned in the Dardanelles	63,600	

10	Allocation for the Provisions and Uniforms of the Crew	29,931	94,031
	Miscellaneous Charges belonging to the Crew	500	
11	Salaries for Marines as Donation or Gratuity	495,948	670,619
	Provisions for Marines as Donation or Gratuity	174,671	
12	Salaries of the Officers Commissioned in the Cellars and Storehouses in the Imperial Naval Arsenal	11,110,111	11,110,111
	Salaries of the Officers, Scribes, etc. Commissioned in the Imperial Dockyards outside of Istanbul		
	Salaries and Travel Allowances of the Officers, who were sent to foreign countries		
	Miscellaneous Charges		
13	Allocation Reserved for the Possible Repair Works of Ironclads	4,965,213	4,965,213
GENERAL TOTAL FOR THE FISCAL YEAR OF 1873			125,000,000

As is seen from the table, 1,136,363 pounds sterling was reserved from the state's budget in the fiscal year of 1873 for the expenses of naval affairs, and the biggest portion was allocated for the salaries and provisions for the officers and marines—amounting to 496,927 pounds sterling. When this amount was added into the total amount of the salaries of other departments, it reaches 818,757 pounds sterling, meaning 72% of the total allocation of the naval treasury was spent on the wages and provisions of the naval personnel, and approximately 300,000 pounds sterling was reserved for the other needs of the navy, such as providing the technical equipment and repair and maintenance of ships that constituted the naval fleet. The disproportional distribution of the naval budget can be followed more clearly from the diagram below:

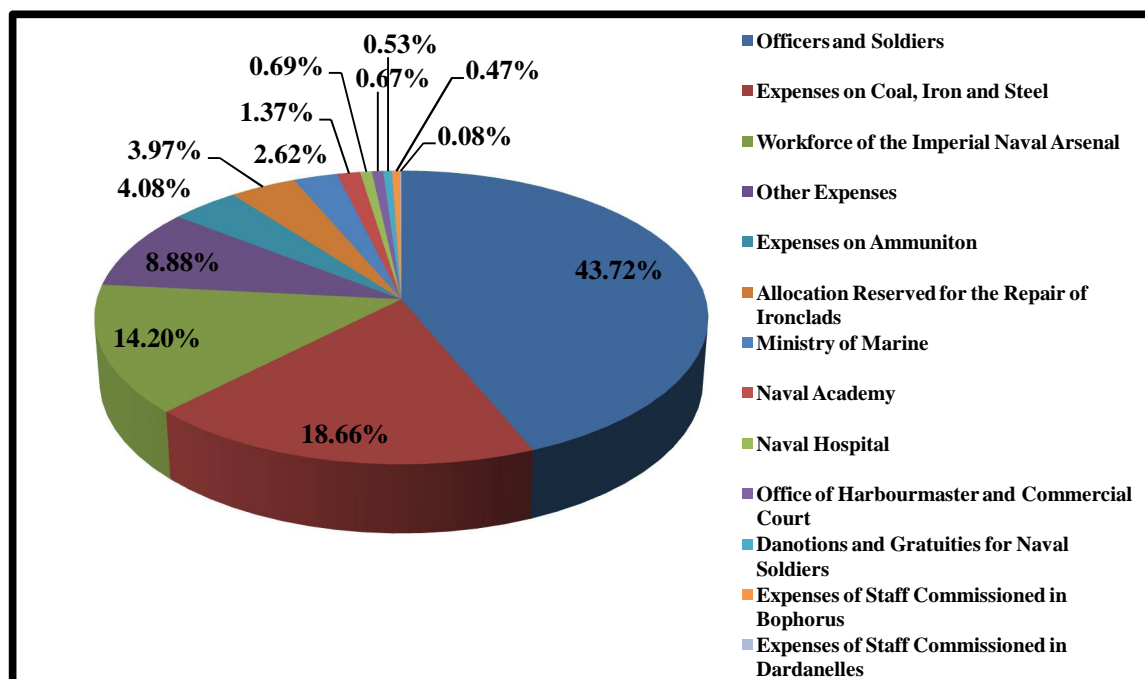


Figure 7. The Distribution of the Allocation Reserved for the Naval Treasury in the Fiscal Year of 1873

The distribution indicated in Figure 5 above explains the negative impact of the remuneration of naval personnel, which resulted in the Ministry having little income left to carry out the manufacturing and construction activities in the arsenals, or to pay the instalments for purchased vessels and required equipment. In fact, it can be seen from the continuation of the same document that the Ministry had to apply for an exceptional allocation from the Ministry of Finance, as there was no money available for the needs of other departments.⁵⁵⁷ The fiscal deficit of the naval treasury was calculated as 416,750 pound sterling for the same year and the rest would be paid from the allocated budget of the navy for the following fiscal year. The total amount would be spent for the following expenditures: the order placed for the guns and rigging of *Mukaddeme-i Hayr* (£20,000); the cost of five armoured gunboats to be ordered from London (£275,000); the cost of five armoured gunboats to be built in the Imperial Naval Arsenal (£225,000); the expenditures of the construction of a new frigate (£300,000); expenses made for the

⁵⁵⁷ DMA, MHS, 621-2 (19 April 1873); DMA, MHS, 621-3 (19 April 1873).

new drydock (£22,000); the expenditures made for the ironclads named *Asar-ı Tevfik*, *Asar-ı Şevket* and *Necm-i Şevket* (£22,000), and finally the cost of the frigate which was being built by the Thames Ironworks Company (£481,000). To meet these exceptional and expensive requirements, the state applied for borrowing many times during this period, and the Ottoman Empire reached up to 213,000,000 pounds sterling in outstanding debt, with its interest payable in a single year at around 12,900,000 pounds sterling. The main external and internal debts of the Ottoman Empire can be seen from the table below:⁵⁵⁸

Table 29. The Amount of Loans between 1862 and 1875

Date	Loan Type	Amount of Debt	Creditor	Interest Rate	Collateral
1862	Internal	8,073,394 pounds sterling	The Ottoman Bank	6%	Several revenues
1863	Internal	8,073,394 pounds sterling	The Ottoman Bank	6%	Silk duties of Bursa and Edirne, olive duties of İzmir, Balıkesir, Lesbos
1865	External	6,055,045 pounds sterling	Credit Mobilier de Paris and Societe General	6%	The copper revenues of Ergani and the revenues of ağnam (sheep) tax
1869	External	22,426,093 pounds sterling	French banks and brokers	6%	The taxes of ağnam and tithe collected from several provinces
1870	Internal	1,834,862 pounds sterling	Broker Kamentof	---	---
1871	Internal	275,229 pounds sterling	Broker Wilson	---	---
1871	External	5,752,293 pounds sterling	Credit General Ottoman	6%	Tithe tax revenues of Egypt
1872	Internal	366,972 pounds sterling	Broker Baltacı Todorini	---	---
1872	External	11,228,275 pounds sterling	Austo Ottomane, Credit General Ottoman	9%	Tax revenues of Edirne, Thessaloniki and Danube
1873	Internal	91,743 pounds sterling	Broker Baltacı Todorini	---	---
1873	External	28,032,622 pounds sterling	Credit General, Credit Mobilier	6%	Tithe tax of Ankara and Danube, ağnam

⁵⁵⁸ Pur, 2006: 218-224; Sağlam, 2007: 28; Zorlu 2009: 157.

					tax of Anatolia.
1874	Internal	9174 pounds sterling	Broker Ohanis	---	---

When the interest rates and the other expenditures such as insurance, commission, and transfer fees were removed from the total, external debt amounted to 73,494,328 pounds sterling, borrowed between 1862 and 1874, and the money credited to the Ottoman Treasury was 44,987,252 pounds sterling—amounting to only about 6/10th of the sum borrowed. The percentages of the funds allocated for the military expenditures from the Ottoman budget during the second half of the nineteenth century were as follows:⁵⁵⁹

Table 30. The Percentages of the Funds Allocated For the Military Expenditures

Unit	The Reign of Abdülmeçid (1841- 1861)	The Reign of Abdülaziz (1862-1876)	The Reign of Abdülhamid II (1877- 1900)
<i>Nizamiye</i> (Army)	81.11 %	69.49 %	62.4 %
<i>Tersane-i Amire</i>	12.29 %	17.27 %	7.71 %
<i>Tophane</i> (Armoury)	2.54 %	10.46 %	8.38 %

As can be seen from Table 30, the funds reserved for the army were reduced and the share of the Ottoman Navy was significantly increased during the period of Sultan Abdülaziz. However, the reforms performed to modernize the Ottoman Navy started to diminish gradually after 1875 as the requisite financial infrastructure, which would create new fiscal resources to meet the increasing expenditures, could not be provided. As it was no longer possible to borrow from foreign countries, the government was forced to contract debt from the moneylenders of Galata undertaken at high interest rates. On 6 October 1875, Grand Vizier Mahmud Nedim Pasha announced that half of 12,900,000 pounds sterling paid up by the government in 1875 upon the suggestion of Ignatiyef, the Russian ambassador, would discontinue for five years, and in return stock

⁵⁵⁹ Gürsakil, 2010: 125.

shares (*esham*) would be provided on the basis of 5% interest per annum.⁵⁶⁰ After this decision that diminished the financial reputation of the Ottoman Empire throughout Europe, the insolvency of the treasury was announced by the Ottoman government with another declaration dated 10 October 1875. In addition, the tax revenues of Egypt, the revenues of *ağnam* (sheep) tax and customs, tobacco, and salt duties were put up as collateral for the instalments, whose payments were stopped by the Ottoman government for five years.⁵⁶¹

The treasury insolvency not only discredited the reputation of the Ottoman Empire, but also damaged the financial situation of European credit institutions and the brokers of Galata. Upon these developments, Sultan Abdülaziz was dethroned on 30 May 1876 as a consequence of efforts undertaken by Midhad Pasha, Hüseyin Avni Pasha, Interpreter Rüşdü Efendi, and Hasan Hayrullah Efendi. He was found with his wrists cut in Feriye Palace on 4 June 1876. As the exact cause of death was unknown, the Court of Yıldız was convened during the reign of Sultan Abdülhamid II and the case was recognized as murder.⁵⁶² In the same period, the Ottoman Navy, which cost Sultan Abdülaziz his reign and his life for the sake of upgrading to meet the contemporary European standards, was withdrawn to the Golden Horn and left to decay.

The Rise of Torpedo and the Naval Policy of the Ottoman Empire in the Reign of Sultan Abdülhamid II

The withdrawal of the Ottoman Armoured Navy to the Golden Horn for a period of nearly twelve years was a natural result of the Sultan Abdülhamid II's cautious

⁵⁶⁰ Sağlam, 2007: 35-36.

⁵⁶¹ Sağlam, 2007: 39-40.

⁵⁶² Küçük, 1988: 183; Beşirli, 2004: 251.

approach towards naval affairs. The great financial depression started with the announcement of the treasury insolvency, the dethronement of Sultan Abdülaziz and the failure of the Ottoman Empire against Russia during the Great Eastern Crisis necessitated immediate measures to be taken and as shown by the Table 30, a restrictive policy was followed on the allocations reserved from the treasury for both the army and the navy, which were decreased approximately 7% and 10% respectively. However, as indicated above, the budget of the navy was insufficient even in the reign of Sultan Abdülaziz and the Ministry of Marine had to apply for exceptional allocations for several expense items. Accordingly, a further reduction on an already limited budget led the naval treasury to be incapable of maintaining the large armoured fleet, which can be regarded as the primary reason for the inactivity of the Ottoman Navy in the period Sultan Abdülhamid II. In fact, the Naval Council presented a programme of maintenance in 1885 including the equipping the guns of the *Feth-i Bülend*, *Mukaddeme-i Hayr*, *Avnillah* and *Muin-i Zafer*; changing the boilers of the *Osmaniye*, *Mahmudiye*, *Orhaniye* and *Aziziye* due to the obsolescence of the existing ones, which reduced the speed from 12 to 8 knots; purchasing two steamers and a certain amount of Nordenfeldt guns, all costing approximately 386,940 pounds sterling. The response was received through an imperial decree after four years, stating that only 45,454 pounds sterling—one eighth of the specified allocation—could be reserved for this programme from the state's budget in 1889. Towards the middle of the 1880s, it was observed that rotting was developed to a large extent on some of the ironclads, which even precluded them from being repaired. On 9 May 1889, an official memorandum was sent to the

Sublime Port and the outdatedness of the armoured fleet of the Ottoman Navy was remarked with the following statements:⁵⁶³

Reforms made to modernize the Ottoman Navy 15 to 20 years ago have lost their significance when the recent progress made upon the guns and ammunition taken into consideration. The ships constituted the armoured fleet were constructed in accordance with the conception and requirements of the previous period and the current situation of this fleet is regarded as weak compared to the navies of rival states due to the fineness of their armours and insufficiency observed on their speeds. For this reason, required measures should be taken urgently as in comparison to the innovations made on today's naval warfare, our armoured fleet has been downgraded the level of our transport vessels.

On the other hand, the era of Sultan Abdülhamid II witnessed also the emergence of the Ottoman torpedo fleet and the launch of the first Ottoman submarines. In parallel with this, 24 torpedo boats were ordered between 1883 and 1886. While five of them were constructed in the Imperial Naval Arsenal, the rest was purchased from Germany, France and Britain.⁵⁶⁴ In 1886, the newly developed Nordenfeldt I submarine equipped with Whitehead torpedoes was purchased by Greece and upon the information regarding a possible attack of the Greek fleet encouraged by Britain, Sultan Abdülhamid II declared with an imperial decree that two submarines, which cost 22,000 pounds sterling, would be purchased for the Ottoman Navy. Later named *Abdülhamid* and *Abdülmecid*, the first submarines of the Ottoman Empire were completed in 1887 in Istanbul.⁵⁶⁵ This situation confirms that the naval policy of the Empire in Sultan Abdülhamid's reign was formed within the scope of the constitution of a powerful coastal defence fleet, which required a lower budget. However, the requirements of the

⁵⁶³ From DMA, MKT, 596-115-116 (9 May 1889) transferred by Batmaz, 2002: 207-208. This official memorandum was quoted by Batmaz, 2002: 207-208 and its translation from Turkish to English has been provided by me.

⁵⁶⁴ Batmaz, 2002: 220.

⁵⁶⁵ Zhukov and Vitol, 2001: 222, 228.

alteration made in the naval policy of the Empire in the reign of Sultan Abdülaziz cannot be explained only with the mandatory budget rearrangements.

Following the invention of self-propelled torpedoes by the British engineer Robert Whitehead in 1866, the efficiency of large armoured fleets against fast-moving steamers reinforced with torpedoes came under question, particularly after the Ottoman-Russian War of 1877-1878.⁵⁶⁶ As the neutralization of the Black Sea had been confirmed by the Treaty of Paris in 1856⁵⁶⁷, the Black Sea was demilitarized under international law until 30 October 1870, when the Russian Government unilaterally denounced the neutralization clauses of the Treaty on the pretext of the Franco-Prussian War of 1870.⁵⁶⁸ This resulted in the annulment of the articles numbered XI, XIII and XIV by the arrival of the London Convention on 13 March 1871. According to this, Russia would be permitted to build navies and fortify ports in the Black Sea and the Straits could be opened in the time of peace to war ships of friendly and allied powers if such a case was considered necessary by the Ottoman Government to carry out the terms of the Treaty of Paris, meaning that Russia's right to maintain a fleet in the Black Sea was conceded by the Powers while the Ottoman Empire's sovereignty rights to control over the Straits was extended by leaving the decision of which war ships should

⁵⁶⁶ Sondhaus, 2002b: 177; Briggs, 2002: 447-448; Epstein, 2014: 3.

⁵⁶⁷ (Article XI) *The Black Sea is neutralized; its Waters and its Ports, thrown open to the Mercantile Marine of every Nation, are formally and in perpetuity interdicted to the Flag of War, either of the Powers possessing its coasts, or of any other Power. (Article XIII) The Black Sea being neutralized according to the terms of Article XI, the maintenance or establishment upon its Coast of Military-Maritime Arsenals becomes alike unnecessary and purposeless; in consequence, His Majesty the Emperor of All the Russias, and His Imperial Majesty the Sultan, engage not to establish or to maintain upon that Coast any Military-Maritime Arsenal. (Article IV) Their Majesties the Emperor of All the Russias and the Sultan having concluded a Convention for the purpose of settling the Force and the Number of Light Vessels, necessary for the service of their coasts, which they reserve to themselves to maintain in the Black Sea, that Convention is annexed to the present Treaty, and shall have the same force and validity as if it formed an integral part thereof. It cannot be either annulled or modified without assent of the Powers signing the present Treaty* (Oakes and Mowat, 1918: 178).

⁵⁶⁸ *The Annual Register: A Review of Public Events At Home and Abroad For the Year 1871, 1872*: 9-10; Mosse, 1961: 166-167; Ünlü, 2002: 30.

pass through the Straits entirely to the Sultan.⁵⁶⁹ Marking the end of the Crimean system, the London Convention also referred the changing international circumstances for Russia as the same opportunities regarding the Straits were given by the convention for all the contracting parties.

Using the advantage given by the Convention, Russia composed her Black Sea fleet of fast merchant steamers reinforced with self-propelled torpedoes, which performed a successful campaign against the far superior Ottoman Navy during the Great Eastern Crisis. On the night of 25-26 January 1878, the wooden screw gunboat *İntibah* became the first vessel to be sunk by self-propelled torpedoes in a Russian attack against the Ottoman port Batum and this was followed by the sinking of two more wooden screw gunboats, a small monitor and an armoured corvette. Despite being doubtlessly inferior to her Turkish opponent, the Russian fleet managed to paralyze the Ottoman warships, which were compelled to go on the defensive by the fear of torpedo attacks.⁵⁷⁰

The failure of the Ottoman Navy not only discredited the reputation of armoured vessels but also proved the inefficiency of the armoured ships in the sight of Sultan Abdülhamid II, who considered torpedo boats and later submarines as the primary interest of the Ottoman naval policy after 1882. As a result of the experimented effectiveness of torpedo after the Russo-Turkish War, a new naval strategy called Jeune

⁵⁶⁹ *The Annual Register: A Review of Public Events At Home and Abroad For the Year 1871*, 1872: 5-6; Oakes and Mowat, 1918: 318; Mosse, 1961: 186-18; Ünlü, 2002: 30-31; Sondhaus, 2008: 63; Papastratigakis, 2011: 61; Otte, 2013: 27-28.

⁵⁷⁰ Sandhaus, 2002b: 177; Papastratigakis, 2011: 62. The commander of the Ottoman fleet during the campaign, Hobart Pasha later described the effects of torpedo in his memoirs with following statements: “I must admit that while torpedoes at that time were supposed to be in their infancy, the defence prepared against their attack was also very much in its infancy, so preparations were of the most primitive description... To the uninitiated a torpedo is a thing to frighten any one away. We had heard of magnificent results of torpedo trials in peace, how ships had been blown up columns of water half a mile high being sent into the air, &c. Nothing, it was said, could save you” (Hobart Pasha, 1887: 218, 224).

École was developed by the Admiral Théophile Aube from the French Navy, advocating the deterrent effect of the torpedo boats over expensive armoured battle ships. Centring the torpedo as the main element its defensive theory, the arguments developed by the young school was widely adopted by the European naval powers. Following ten years, a considerable deceleration observed in the construction of battleships and the domination of Jeune École reached its peak in 1887, when no warship was laid down by any power.⁵⁷¹ However, the école lost his significance depending upon the anti-torpedo boat developments by the end of 1880's. The use of torpedo nets and electric searchlights reduced the destructive effects of torpedo attacks, particularly at night and an effective defence was provided with the introduction of torpedo boat destroyer in 1893. The nitro-cellulose based smokeless powder enabled navies to remove disadvantages arising from the large quantity of smoke produced by the gun-powder based charges and the introduction of nickel-steel armour plates provided the sufficient protection for battleships against newly invented armour piercing chrome steel shells. As a result, torpedo boats were not accepted as a serious threat after the developments of naval armament and armour production which turned naval powers back toward the battleships in the 1890s.⁵⁷²

⁵⁷¹ Sondhaus, 2002b: 177-178; Sondhaus, 2008: 63.

⁵⁷² Sondhaus, 2002b: 178-179; Roberts, 2001: 112-113.

CONCLUSION

The adoption of iron was the most influential development that directly changed the conditions of naval warfare in the nineteenth century. Being the final element in the creation of modern warship, the introduction of armour for the protection of ships remarkably affected the political and strategic power of naval forces.

When Sultan Abdülaziz ascended the throne under the influence of these rapid developments, the territorial integrity of the Ottoman Empire had been assured by the European powers under the leadership of Britain by terminating the Russian pressure on the Ottoman territories in Balkans after the Treaty of Paris. Even though, this created a buffer zone between the Empire and Russia, the Crimean War clearly indicated that the entire elimination of the Russian threat became inevitable for the Empire's future existence. Having a keen awareness of this necessity, the first attempts of the Sultan show that the strategy he followed in his sixteen year of reign in accordance with this purpose was developed within the scope of two primary requirements: the continuation of the reform programme carried out in the reigns of Sultan Mahmud II and Sultan Abdülmecid, maintaining of the alliance with Britain and France and having a strong military power, much stronger than the Empire's major opponent, so as to be able to respond to any kind of attack without need of assistance from a different country. As the weakness of the Ottoman Navy against Russia was confirmed two times in the Battle of Navarino and the Battle of Sinop, it was believed that a powerful naval fleet reinforced with armoured battleships was the main solution to stop the worsening strategic condition of the state. As is seen in the last chapter, the success of the Russian Navy against the Ottoman squadron anchored at Sinop was reversed by the world's leading naval powers, Britain and France at the Battle of Kinburn. The entire destruction of

Russian forts by the armoured batteries of France proved the vulnerability of the wooden vessels against iron ships equipped with heavy shell guns, which gave an idea to Sultan Abdülaziz that the Russian threat for the Empire could be removed by the creation of the Ottoman Armoured Navy, which would reach the same level of the navies of Britain and France; the only powers, which managed to lock Russia in the north of the Black Sea. For this reason, Battle of Kinburn should be regarded as the driving force for the emergence of Ottoman armoured fleet, which included 26 vessels at the end of Abdülaziz's reign.

In parallel with the Sultan Abdülaziz's intentions, Russia could not dare to confront the Ottoman Navy for a period of over 20 years between the Crimean War and the Russo-Turkish War of 1877-1878. This provided breathing space for the Empire to sustain her own existence without experiencing a war threat, thus Sultan Abdülaziz had an opportunity to carry out the naval modernization during the 16 years of his reign. For this reason, constituting the third largest navy of Europe in a short time can be regarded as an achievement of the Ottoman Empire as the Ottoman ironclads was effective enough to contain the enemy in the north of Black Sea.

In reality, however, the failure of the Ottoman armoured fleet first against the weakest naval power of Europe, Greece during the Cretan Insurrection and later against the outnumbered Russian Black Sea fleet in the Ottoman Russian War of 1877-1878 clearly indicated that the prospective results could not be achieved in operation on account of the problems that arose from deficiencies in naval training. These operational failures confirmed that even though the Ottoman Navy seemed more powerful than her biggest rivals, a pre-designed and well-organized naval programme could not be established during this period. To find the most significant evidence in support of the

above verdict, one needs to seek an answer to the question of why the activities designated and implemented for the modernization of the Ottoman Navy did not give the intended positive results?

On taking a general look at the naval modernization carried out in this period, one can easily see that a systematic and sequential operating cycle as necessitated by a logical system could not be established. It was observed that Abdülaziz himself was, in a tumult after becoming the Sultan, desperate to prove his authority and power to his people, which as he believed, would only be possible with a solid naval system. During his travels to Europe in 1867, he had the opportunity of an onsite examination of the naval forces of Britain and France. With the intended modernization of the Empire's naval force, the Sultan aimed at restoring the long-absent military power of the Ottoman Empire on the land and on the water, and upgrading the political prestige of the Empire in the international arena. However, while the main focus was given to increase the number of large armoured vessels, the requirement to ensure their efficiency on coastal defence was disregarded. Towards the beginning of the 1870s, the Black Sea clauses of the Treaty of Paris came under question and the Sublime Porte was acquainted by the British Ambassador in 1870, when negotiations were commenced by Russia to end the Crimean system, with the resolve that in the case of a Russian attack against Turkey Britain would adopt a neutral attitude.⁵⁷³ This resulted in the London Convention of 1871, which gave Russia the right to maintain a fleet in the Black Sea. By considering the changing political *status quo* of Russia, a different strategy should have been developed to increase the efficiency of naval defence against the Russian Black Sea squadron, composed of steamers reinforced with the power of torpedo. Instead of

⁵⁷³ Mosse, 1961: 169.

following this plan, building a navy consisting of great tonnage vessels, regardless of the capacity of the Imperial Naval Arsenal, the navy did not clear the ground for building new vessels; conversely, it actually curbed the Arsenal's capacity for maintenance and repair of already existing vessels. The infrastructure of the Arsenal, far from being strengthened, was not compatible with the then-current technological advancements. Thereby the government became foreign-dependent for the supply of such crucial items of the period, and neither the personnel nor the method of maintenance were sufficient for the newly purchased vessels and materials. The geopolitical requirements of Britain and France, coupled with the need for applying a rather different policy on the water were ignored. Consequently the attempt at creating an equally good naval force in comparison to the European naval powers ended in failure due to inadequate raw materials and training, as well as production drawbacks.

The application of a new system copied from Europe to a traditional administrative structure, which was not ready to cover all the implementations with its administrative staff due to the constant changes implemented in the administration, proved a major obstacle to naval modernization. The short tenure in office of the presidency of the Ministry and the appointment of officers who had no previous experience in naval affairs led existing units to be replaced with new ones, which also caused the preparation of new regulations within a short few years, without giving an opportunity for the older regulations to be carried out. This situation not only paralyzed the functionality of the administrative units, but also failed to provide consistency in the financial management of the navy. For this reason, sustainability could not be achieved in the field of naval administration during this period, which was arguably one of the

most important reasons for the financial crisis that the state faced at the end of the reign of Sultan Abdülaziz.

Depending upon the increasing number of ships and personnel, steep increases were observed in the budget allocated for naval affairs in the reign of Sultan Abdülaziz. However, as presented in the last chapter, more than 70% of the allocation was spent on the salaries and provisions of the naval personnel, which compelled the Ministry of Marine to apply for exceptional allocations to carry out manufacturing and construction activities in the Imperial arsenals, and also to meet the need of other departments. The acceleration of such expenditures led the Empire to apply for internal and external borrowing many times between 1862 and 1874, which resulted in the treasury's insolvency and dethronement of Sultan Abdülaziz in 1876. Instead of putting new burdens on already strained financial conditions, measures should have been taken to fix the finances by narrowing the existing fiscal deficit inherited from the previous periods. As revealed by the Ottoman squadron's failure against Greek blockade-runners during the Cretan Insurrection, the focus of the naval modernization should have been conducted to improve the quality of naval training as a great portion of the budget allocated for the navy was spent on the expenditures of foreign advisors and workers. Reserving only 1.37% of the naval budget for the naval education prevented the Ministry from achieving the targeted number of officers to be assigned to the warships and the Imperial Naval Arsenal, with the result that dependency on the West continued until the end of this period. As confirmed by Chapter One, the foreign policy of Britain towards the Eastern Question had an inconsistent tendency from the beginning of the nineteenth century and it was predictable that the Ottomans' alliance with Britain and France after the Crimean War would not last forever after the London Convention of

1871. For this reason, a defensive naval policy should have been developed by increasing the number and the quality of light tonnage-fast moving coastal defence vessels, which would cost far less than heavy tonnage armoured ships and allow the Ministry to reserve a higher budget for the training of naval personnel.

With the acceleration observed in the activities to enlarge the naval fleet, the need for a qualified personnel emerged as an important issue to be addressed from the early years of Sultan Abdülaziz's reign. Particularly after the establishment of the Naval Reforms Commission, the efforts to adapt the training methods implemented by the Royal Navy led to constant changes being made, especially to the length of training and the Naval Academy's curriculum. Instead of carrying out the same theoretical course programmes in the preparatory and higher naval education, naval cadets should have been sent to a seagoing training ship after the successful completion of the Naval High School. This would have avoided the problems arising from the excessively advanced and ever-repeating nature of the naval education, which often caused prolongation of study, increases in the drop-out rate, decreases in the number of students successfully completing the programme, and other related performance issues such as disinterest. As is confirmed by Nutku's observations, the plan envisaged in the new regulations of the practical training carried out on board *Hüdavendigâr* and *Muhbir-i Sürur* was far from being practicable when the period of cruising and the expenditures are taken into consideration. Indeed, it was thought preferable to focus on a new course programme, which would provide students more experience on seamanship rather than determining a new routing that included expensive trips. The new system had more important problems, such as the failure to produce the desired number of graduate students and the continuing reliance on Britain to meet the need for qualified instructors. Therefore it can

be said that the best method for ensuring practical and theoretical education remained uncertain and undecided during this period.

As is seen, the inconsistency in naval development characterized by the advancements in warship design, armour production and naval armament led the Ottoman Sultans to develop different naval strategies for short periods in the second half of the nineteenth century. With the launch of *Gloire*, a considerable increase was observed in the number of armoured vessels in Europe's leading navies and it did not take long for the Ottoman Empire to join this ironclad race under the influence of the impetus given by the destructive effect of heavily built sea-going vessels reinforced with the explosive shells. However, the failure of the Ottoman ironclads against Russian torpedo boats during the naval operations of the Great Eastern Crisis led naval powers to focus on the deterrent force of torpedo, which caused a decrease in the number of newly built armoured vessels. In parallel with these developments, Abdülaziz's successor Sultan Abdülhamid II followed a different naval policy by using the allocated budget to constitute a smaller fleet, composed of torpedo boats and later submarines, rather than spending it on the maintenance of Sultan Abdülaziz's large armoured fleet, whose inefficiency was proved two times against Greece and Russia. As a result of this policy, the fleet remained unused in the Golden Horn until the 1890s.

APPENDIX I. The Form of Inspection Regarding the General Service of the Ottoman Warships (Implemented first by the Royal Navy and translated from English to Ottoman Turkish by the Naval Reforms Commission for the Ottoman Navy - BOA, I.DH, 615-42853)

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The Form of Inspection in transliteration

FORM OF INSPECTION REGARDING THE GENERAL SERVICE OF THE OTTOMAN WARSHIPS	
Name of the Ship: By whom now inspected:	Where the Inspection Takes Place: When The Ship Was Equipped:
<p><i>The Inspecting Officer is to examine and report with the reference to the following points:</i></p>	
Article	Questions
1	Name of the Captain and date of his appointment?
2	Station where the ship is commissioned.
3	Five Times Prayer- If regularly performed, and by whom?
4	Smoking- If regulations have been attended to?
5	If the subordinate officers have been instructed at the gun, cutlass drill and musket?
6	Ship's log and other books to be examined and their state.
7	Petty officers, Seamen and Boys- Strict inquiry is to be made whether they have been properly rated with reference to their age, ability and fitness for their duties, and especially if the Boys have been exercised aloft, and been properly instructed in their various duties as Seamen.
8	What system is followed to instruct the Ordinary Seamen to prepare them for better Ratings?
9	Which division the Riflemen have been belonged to and their level of competence.
10	Defaulter's Books for Seamen and Riflemen to be examined and reported on, relative to the description and duration of summary punishments; and whether all those inflicted have been recorded. Report also as to Record of Conduct Book; and whether the characters of the Crew have been noted in their certificates according to the instructions on that head.
11	Imam- Whether he performs his duties, and how many persons he has under instruction.
12	Leave on Shore- If it has been permitted to the Ship's Crew; and the regulations have been attended to?
13	Provisions- Whether there has been, or is, any complaint against them, and whether any condemnations have taken place? If so, from what cause?
14	Wages- If they have been paid at proper periods, and the amount of payment deserved when delays have been experienced.
15	Cases- If there are any under trial on board; what opinion has the Captain formed of their merits; and have the reports been regularly transmitted to the Ministry of Marine?
16	Bow and Mastheads- Whether properly fitted; and if the officers of the watches are acquainted with the regulations?
17	Bedding and Clothing- Are lists of the Seamen's clothing kept by the officers?

18	Are the Instructions respecting the Clothing of Men complied with?
19	What are the Captain's regulations with regard to Inspections of Clothing and Bedding?
20	Of what number of men was the Clothing examined, and was it compared with the Officer's Division List?
21	Of what number of men did the Inspecting Officer examined the Bedding?
22	Is the Inspecting Officer satisfied with the personal cleanliness of the Crew, and with the condition of their Clothing and Bedding?
23	What time is set apart, periodically, when the service will admit of it, for the Ship to make and mend their clothes?
24	Ship, Armament- Has the Captain any observations to offer in regard to the qualities of the Ship, or any recommendations to submit, which it is considered would render the Ship in any respect more serviceable and efficient?
25	Places of Confinement- Whether of suitable dimensions and properly ventilated, or otherwise?
26	Filling Live Shells in Action- Has a place been set apart for the purpose.
27	Watch, Station, Quarter and Fire Bill- Whether the regulations therein contained have been attended to?
28	Paddle-Box Boats- Whether ready and efficient for Service?
29	Advancement of Seamen-With reference to Questions Nos. 7 and 8. Have Quarterly Lists been submitted by the Officers of Divisions to the Captain, of Ordinary Seamen of either Class desirous of examination for a better Rating.
30	Good Conduct Badges-Whether correctly awarded?
31	At General Quarters-Whether the Ship was cleared for action with order and rapidity.
32	How many of her guns (specifying on which deck) are masked by cabins?
33	If the Stern and Bow Ports are clear and ready for the Guns on each deck?
34	Date of last; Inspection at Quarters, Shot practice at a target and double Shooting, Shell practice.
35	Do the Officers understand the Gunnery Instructions, and are they properly qualified to exercise their men.
36	Have the men been properly trained to the guns and to fire with precision?
37	The same as to rapid horizontal fire?
38	Are all the arrangements proper and judicious: For the Magazines, and for action; Boarding and repelling boarders; For the helm, in the event of accident to the wheel, tiller or tiller robes; For stoppering , repairing or replacing rigging or spars, also for clearing wreck of mast; With pumps, hoses, buckets, in case of fire?
39	Were the Stern and Bow Guns exercised on each deck?
40	Are the boats properly and efficiently fitted for all services?
41	Are the established number of Field Pieces on board; and have the men been trained to the exercise?
42	Description of Engines.
43	By whom made?

44	Of what power?											
45	When fitted to the ship?											
46	If they have at any time been defective, or have broken down; if so, when, and cause?											
47	Whether now in good order and work satisfactorily, or in any manner defective, and if so, from what cause?											
48	When last overhauled and repaired?											
49	If a screw, diameter and pitch?											
50	If paddles, diameter and breadth?											
51	Description of boilers.											
52	When put on board?											
53	Where made?											
54	Their present state?											
55	At what pressure they are worked?											
56	How long they will continue fit for service?											
57	Number of Engineers on board.											
58	Number of Stokers on board.											
59	If the Engineers are attentive to their duty, and efficient?											
60	What number of troops can the Ship convey for five days and thirty days?											
61	What quantity of Coal can she stow?											
62	Number of days, Coal can stow: Full Steam or Expansively											
63	<table border="0"> <tr> <td rowspan="2">Average {</td> <td>Rate per hour {</td> <td>Full Speed</td> </tr> <tr> <td></td> <td>Expansively</td> </tr> <tr> <td></td> <td>Distance run with {</td> <td>Full Speed</td> </tr> <tr> <td></td> <td>one ton of Coal {</td> <td>Expansively</td> </tr> </table>	Average {	Rate per hour {	Full Speed		Expansively		Distance run with {	Full Speed		one ton of Coal {	Expansively
Average {	Rate per hour {		Full Speed									
		Expansively										
	Distance run with {	Full Speed										
	one ton of Coal {	Expansively										
64	Whether the Captain or Chief Engineer has any submission to make with reference to the Machinery, or Boilers, to render them more efficient.											
<p>General Remarks, with Inspecting Officer's opinion of the Ship and the state of efficiency and cleanliness of the Ship:</p>												
<p>Signature:</p>												

APPENDIX II. Sanjaks and *Kazas* Allocated for the Naval Recruitment for the Year of 1864 (BOA, I.DH, 524-36120)

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**APPENDIX III. Report Regarding the Alterations on Naval Training in 1875
(BOA, LMMS, 52-2262)**

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APPENDIX XI. The Ships Comprising of the Armoured Fleets of European Naval Powers in 1878

Country	Names of Armoured Vessels			Total Number
	First-Class Ironclads	Second-Class Ironclads	Coastal Defence Ironclads	
Britain	Inflexible, Dreadnought, Thunderer, Devastation, Agamemnon, Ajax, Monarch, Neptune, Alexandra, Téméraire, Sultan, Hercules, Bellerophon, Swiftsure, Triumph, Audacious, Invincible, Iron Duke, Penelope, Superb, Shannon, Nelson, Northampton, Belleisle, Orion	Agincourt, Minotaur, Northumberland, Achilles, Black Prince, Warrior, Hector, Valiant, Resistance, Defence, Lord Warden, Repulse	Glatton, Hotspur, Rupert, Prince Albert, Cyclops, Gorgon, Hecate, Hydra, Scorpion, Wivern, Viper, Vixen, Abyssinia, Magdala, Cerberus	52
France	Redoutable, Richelieu, Colbert, Trident, Friedland, Marengo, Océan, Suffren, Solferino, Flandre, Gauloise, Guyenne, Magnanime, Provence, Revanche, Savoie, Surveillante, Valeureuse, Héroïne, Gloire, Couronne	La Galissonnière, Victorieuse, Alma, Armide, Atalante, Belliqueuse, Jeanne d'Arc, Montcalm, Reine Blanche, Thétis	Tonnerre, Béliar, Bouledogue, Cerbère, Tigre, Taureau, Onondaga, Arrogante, Implacable, Opiniâtre, Embuscade, Imprenable, Protectrice, Refuge	45
Turkey	Mesudiye, Nusretiye, Aziziye, Osmaniye, Orhaniye, Mahmudiye, Asar-ı Tevfik	Feth-i Bülend, Mukaddeme-i Hayr, Avnillah, Muin-i Zafer, Asar-ı Şevket, Necm-i Şevket, İclaliye	Hıfzurrehman, Hizber, Feth-i İslam, Semendire, Bögürtlen	19
Russia	Peter the Great, Knaz Minin, Duke of Edinburg	General Admiral, Sevastopol, Petrapavlovski, Knaz Pojarski	Admiral Lazareff, Admiral Greig, Admiral Tchitchagoff, Admiral Spiridoff, Pervenetz, Ne-tron-mena, Kreml, Ouragan, Tiphon, Latnik, Lava, Vetchoun, Koldoun, Streletz, Edinorog, Bronenosetz, Perm, Smertch, Tcharogeika, Rousalka, Novgorod, Vice-Admiral Popoff	29

APPENDIX XI. The Ships Comprising the Armoured Fleets of European Naval Powers in 1878

Country	Names of Armoured Vessels			Total Number
	First-Class Ironclads	Second-Class Ironclads	Coastal Defence Ironclads	
Germany	Kaiser, Deutschland, Sachsen, Preussen, Friedrich der Grosse, König Wilhelm, Prinz Friedrich Karl, Kronprinz, Hansa	---	Arminius, Wespe, Viper	12
Italy	Principe Amadeo, Palestro, Roma, Venezia	Castelfidardo, Messina, San Martino, Maria Pia, Ancona, Conte Verde, Varése, Terribile, Formidabile	Affondatore	14
Austria	Custoza, Lissa, Erzherzog Albrecht, Kaiser, Erzherzog Ferdinand Max, Habsburg	Drache, Salamander	Maros, Leitha	10
Spain	Numancia, Vittoria, Saragossa, Arapiles	Mendez Nunez, Sagunto, Aragon, Castilla, Navarra	Duque de Tetuan, Puigcerda	11
Holland	Koning der Nederlanden, Prins Hendrik der Nederlanden	---	Guinea, Buffel, Schorpioen, Stier, Cerberus, Bloedhond, Heiligerlee, Krokodil, Tijger, Adder, Haai, Hyena, Panter, Wesp, Draak, Matador, Luipaard, Rhenus, Isala, Vahalis, No.1	23
Denmark	Danmark, Peder Skram, Odin	Gorm, Lindormen, Rolf Krake	---	6
Sweden	---	---	Loke, John Ericsson, Thordoen, Tyrfing and 10 gunboats	14
Portugal	Vasco da Gama	---	---	1
Norway	---	---	Thor, Thrudnang, Mjalner, Skarpianen	4
Greece	---	King Georgios, Queen Olga	---	2

APPENDIX XII. Aziziye (Istanbul Naval Museum Commandership Collection)

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APPENDIX XIV. Orhaniye (DMA – 10773)

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APPENDIX XVIII. Feth-i Bülend (DMA – 2502)

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MKT: 70-7; 94-69; 94-94; 140-112; 118-103; 193-104; 60-128; 60-38; 52-5; 6021-6-6; 174-89; 181-123; 75-166; 65-79; 127-13; 162-19; 156-35; 148-3.

TRS: 392-3A; 392-3B; 392-4B; 392-4C; 392-7A; 392-8A; 392-6A; 392-13B; 392-20B; 729-10-11.

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