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Local Shipyards in the Ottoman Empire: Lemnos Island (1780–1862)[1]

Osmanlı İmparatorluğu'nda Yerel Tersaneler: Lemnos Adası Örneği (1780–1862)

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Abstract

The lifeblood of Lemnos Island is the small shipyard located just at the entrance of the port. In this shipyard, Istanbul's frigate and galleon needs were met. Permanent workers were provided to be employed in shipbuilding on the island. Together with these workers, the timber necessary for shipbuilding material was provided from the forests in the Rumelia Sanjak; iron and nails were provided from Istanbul. Together with this shipyard, the region revived economically. The most common types of ships constructed on the island of Lemnos were the galleon and the frigate, which was a medium-sized warship. The two most important elements for shipbuilding were the personnel to be employed and the materials to be used in the construction of the ship. These two important issues were intertwined with each other. The captain of the ship was held responsible for carrying out these two works. If the ships that were constructed were not finished and sent in a certain time, there was a situation that the ship's material would perish. If the ship could not be finished within the specified time, the material could not. It was constantly mentioned in the documents to bring the materials as soon as possible and to provide the workers. While some of the ships belonging to the navy in Istanbul were constructed as shares, we see that most of them were constructed by the tax collector and voivode, who were in charge of the island administration. The influential factor in the region, who was personally responsible for shipbuilding on the island, was the Voivode Abdulkerim Ağa. Ağa, who was personally responsible for the construction of seven ships in different periods, successfully completed his duties. In our article, the relationship of dependency on Istanbul, which started to change especially in the provincial shipbuilding dockyards during the 18th century, was examined. To the extent possible with archival documents, due to the proximity of Lemnos Island to Istanbul, with the support of the aid received from the capital, the construction of medium-sized ship that the navy needs and the maximum capacity that could be done tried to be explained.

Keywords: Lemnos Island, Frigate, Shipbuilding, Timber and Iron, Voivode Abdulkerim Ağa, Elective Monarchy.

Öz

Limni Adası'nın can damarı, limanın hemen giriş kısmında bulunan küçük tersanedir. Bu tersanede İstanbul'un firkateyn ve kalyon ihtiyacı karşılanmıştır. Adada gemi inşasında çalıştırılmak amacıyla sürekli işçi temin edilmiştir. Bu işçiler ile beraber, gemi yapım malzemesi için gerekli olan kereste Rumeli Sancağı'ndaki ormanlarından demir ve çivi İstanbul'dan sağlanmıştır. Bu tersane ile beraber bölge ekonomik olarak canlanmıştır. Limni Adası'nda en fazla yapılan gemi tipi kalyon ve orta büyüklükte bir savaş gemisi olan firkateyndir. Gemi inşası için en önemli iki unsur çalışacak olan personel ile geminin inşasında kullanılacak olan malzemelerdir. Bu iki önemli konu birbiri ile iç içedir. Geminin kaptanı bu iki işi yürütmekten sorumlu tutulmuştur. İnşa edilen gemiler, belli sürede bitirilip gönderilmek zorundaydı; çünkü gemi malzemesinin telef olma durumu vardı. Eğer gemi belirlenen sürede bitirilemezse; malzeme çürüyebiliyordu. Bu yüzden evraklarda sürekli olarak biran evvel malzemenin getirilmesi; işçilerin temin edilmesinden bahsedilmektedir. İstanbul'a donamaya ait olan gemilerin inşa merkezi olan gemilerin bir kısmı hisseli olarak inşa edilirken; birçoğunun ada yönetiminde görevli mültezim ve voyvoda tarafından inşa edildiğini görüyoruz. Limni Adası'nda gemi yapımından bizzat sorumlu bölgedeki en etkili unsur Voyvoda Abdülkerim Ağa'dır. Farklı dönemlerde dokuz geminin yapılmasından bizzat sorumlu olan ağa; görevlerini başarıyla tamamlamıştır. Makalemizde XVIII. yüzyıl sürecinde özellikle taşra tezgâhlarında değişmeye başlayan İstanbul'a olan bağımlılık ilişkisi incelenmiş; arşiv belgeleriyle elverdiği ölçüde Limni Adası'nın İstanbul' a olan yakınlığı dolayısıyla, başkentten aldığı yardımların da desteğiyle donanmanın ihtiyacı olan orta büyüklükte ve yapılabilecek maksimum kapasitede gemi inşası açıklanmaya çalışılmıştır.

Anahtar Kelimeler: Limni Adası, Fırkateyn, Gemi İnşası, Kereste ve Demir, Voyvoda Abdülkerim Ağa, Seçmeli Monarşi.

Introduction

Lemnos Island is located in the northern part of the Aegean Sea, 61 km from the Dardanelles. It is spread over an area of 476 km2 and has a coastline of 259 kilometers. The highest point of the island, which is generally a flat land structure, is 439 meters (Skopia Hill). (See: Map). Social and economic studies related to Lemnos Island have been conducted before (Sannav, 2004). One of these studies is Demircan's work. In this study, information is given about the social and economic situation on the island of Lemnos in the 16th century. It was also seen that until the first half of the 16th century, resources were allocated to the *Kapudan Pasha* from the income of the island. This situation continued with the addition of livestock incomes until the end of the 17th century (Demircan, 2014, p. 289). A very valuable study that gives information about galleon construction and engineering a century before the period we are talking about is the doctoral study of our teacher Yusuf Alperen Aydın. This study was later published as a book (Aydın, 2011).

In researches related to the Navy; in terms of revealing the quality and functioning of the institution, it is of great importance to examine the organizational structure in the centre and the provinces. Because the most basic thing that determines the qualifications and functioning of the shipyards operating in the provinces was the supply of labour and material needs. While examining the break with tradition in one aspect in our study; this dependency relationship, which started to change especially in the country benches during the 18th century, when innovative seeds were planted, was examined. Especially in our article, not only the change in the XVIII century, but also the shipbuilding activities that took place in the long period until the second century of the XIX century were explained.

As a result, in our article, on the trail of Ottoman archival documents, we tried to explain construction activities in Lemnos, a large-scale island, with the maximum capacity that can be done with the help of the assistance received from Istanbul by the ships in need of the Navy. Lemnos Shipyard, one of the newly established provincial shipyards as a reflection of the reform movements that gained momentum in the maritime field during the reign of Selim III, was one of the important bases that built galleons and frigates that the Ottoman navy needed in the shipbuilding works from the first half of the 18th century to the beginning of the 19th century. In the 19th century, the island of Lemnos was one of the most important places where the state constructed ships because it was close to Istanbul. In the article, we will focus on the shipbuilding in Lemnos following the documents found in the Prime Ministry Ottoman Archives. While explaining the shipbuilding, the close relationship of the island with Rumelia and İstanbul; the transportation possibilities of the island and the organization of the tradesmen on the island were explained; detailed information about the social and economic situation of the Ottoman Empire is also given. While the shipbuilding works are being explained, the social and economic structure is also explained in detail.

Lemnos Island (Duran, 1996, p. 3)

1. Shipbuilding in the Ottoman Empire

The epicenter of the Ottoman navy, which gained a fundamental organization in parallel with the expansion of the state in the 16th century, was The Imperial Arsenal (Tersâne-i Âmire). It is known that the Ottoman Empire had shipbuilding dockyards and constructed ships in suitable ports and coasts on the Black Sea, Marmara, Aegean and Mediterranean coasts from the earliest times.

The galley was the archetypal warship of the Ottoman navy in the 16th and most of the 17th century. The galley measures 40 to 42 meters in length 5,5 meters in width and has draught of two meters (Guilmartin, 2010, p. 116-118). Galleons were used by the English, the Dutch and the Barbary corsairs in the Mediterranean, the most widespread type of this vessel had a hull-length of thirty to thirty – five meters and a width of nine to twelve meters (Guilmartin, 2010, p. 172-176). From the beginning of the 18th century, the British tried to develop the galleon; at the end of this century galleys were widespread in the Mediterranean Countries. A deep-rooted tradition in the Mediterranean dating back to Roman times is the *"tall ship" galley* equipped with oars. On the contrary, galleons, with their sails, created a kind of division of labor in the class of "round ships". The galley was used as a warship, and the galleon was mostly used for trade (Cipolla, 2003, p. 40).

Among the sailboats that stood out in the XV-XVII centuries, the fire ship, Ağrıpar, Barça, galleon (Bostan, 2004, p. 65- 86; Bostan, 2020, p. 223), frigate were the ships that were widely used. Among these, the frigate was the most constructed ship type in Lemnos (Uzunçarşılı, 1988, p. 467). Ship and boat building business today is costly (Çalık, 2019, p. 108). In the early times, the Ottomans not only engaged in maritime activities in the ports of Gemlik and İzmit, but also benefited from the Anatolian *Beyliks*, such as Karesi,

Saruhan, and Aydın Shipyards. These shipyards were important due to the fact that they had beaches for shipbuilding, but; they were not in a position to give the service of the ship's workbench and to both build and equip a ship with all its supplies. However, the dockyards in these places were used to build boats.Frigates were important ships. These ships had 10-17 seats and two or three people pulled each oar. They took an average of 80 navy soldiers each, and there were also seventy people, including officers, servants and stagers. The name of this type of ship was called *"pergende". "Pergendes"* ad 18-19 seats. Another boat that was larger than *"pergendes"* called *"Kalite"* and it had 19-24 seats (Kalyota –Galyot*). "Pergendes"* and *"Kalites"* were used for tracking and had cannons. The largest of this type of ship was the galleon (Bostan, 2005, p. 390; Mufassal Ottoman History Vol III, 1955, p. 1520). Thanks to the efforts of the *Kapudan Pasha* (grand admiral) Cezayirli (Algerian) Gazi Hasan Pasha, the *Tersâne-i Âmire Mühendishanesi* (The Imperial Arsenal Engineering School) was opened under the name of Hendesehane in 1775 (Beydilli, 1995, p. 23). In the Ottoman Empire, galleons were regularly constructed in the shipyards in the Black Sea and Aegean Sea, especially in The Imperial Arsenal in Istanbul.

Despite the reform movements initiated after the Battle of Lepanto in 1571, not much progress could be made in this regard in the traditional world of the Ottoman Empire (Gencer, 2001, p. 59). In the 16th century, the arsenal experienced its first peak of activity,notably during the period subsequent to the Battle of Lepanto where the great majority of the fleet was either destoroyed or captured (Panzac, 2009, p. 22). After the Çeşme Catastrophe in 1770, we see that the arms were rolled up for the shipyard facility (Bostan, 2009, vol. 2, p. 16). Another important attempt made by Selim III (1789-1808) to reorganize the Ottoman navy was to reconsider the provincial shipyards and shipbuilding dockyards, which were suitable for shipbuilding outside of Istanbul, but were not given much importance (Özkaya, 1985, p. 54; Bostan, 1999, p. 19). Understanding the necessity of reform in the country, Selim III took ideas from the prominent dignitaries of the state for the administration of the country. While the shipyards of the country such as The Imperial Arsenal namely Imperial Shipyard, Sinop, Kos, Rhodes and the surrounding areas mentioned in the report given to the Sultan in 1791 (H 1206) by the prominent dignitaries, was full of warships constructed in, but it was reported that they were deprived of equipment such as cannon, cannonball and ammunition and required measures to be taken. In 1795, during the reign of Selim III, a large galleon was constructed at the Golden Horn Shipyard by the French naval engineer Le Bon. In addition, the *Mesudiye* galleon was constructed and launched into the sea. Bron and Benois, who were French naval engineers, with the participation of a Swedish engineers Klintberg and two Ottoman architects, embarked on a reform movement that would include 15 shipyards with the permission of the Sultan. The idea of building a large dock in The Imperial Arsenal and constaction ships suitable for the conditions of the age was dominant (Bostan, 1992, p. 69-100). The inadequacy of the financial situation and the poor current situation did not bring any results about this (Çetin, 2002, vol. VI, p. 814). As a result of this, a determination was made for the provincial shipyards located on the islands and on the Black Sea coast, and the unsuitable ones were quickly made suitable for shipbuilding (Zorlu, 2009, p. 41).

Galleons and frigates were constructed in shipyards such as Gemlik, Kale-i Sultaniye, Lemnos, Lesbos, Samos, Bodrum, Rhodes, Antalya, Bendereğli, Sinop, and Sukhum. While developments were achieved in the maritime field during the reigns of Mahmut II and Abdulaziz, it was interrupted during the reign of Abdulhamid II (Arı, 2009, vol. 2, p. 125-145; Batmaz, 2009, vol. 2, p. 159-173). Torpedoes and torpedo boats emerged as the fundamental element of Abdülhamid's naval policy.

2. Shipbuilding Activities in Lemnos Island

The island, which is known as Lemnos/Limnos today, is referred to as İlimli, Limoz, Limnoz in Turkish sources, and as "Stalimene" in medieval Italian sources. The most important feature that has made the island famous since ancient times is that it is the place where a kind of soil, believed to be therapeutic and called "*tin-i mahtum*" in Ottoman documents and "terra Limnia, terra sigillata" in western works was extracted (Kramers – Darkot, 1955, vol. VII, p. 60-61; Emecen, 2003, vol. 27, p. 190-192). According to Şemsettin Sami, the livelihood of this region, whose soil was not fertile, had been directed to different areas (Şemsettin Sami, 1314, vol. 5, p. 3998-3999). Lemnos Island was connected to Eyalet of the Archipelago ***(****Eyālet-i Cezāyir-i Baḥr-i Sefid in Ottoman Turkish)*. This province was first established in the time of Suleiman the Magnificent (1520-1566) in 1553 by adding Kocaeli, Sığla, Biga from the Eyalet of Anatolia, Eğriboz, İnebahtı, Mezistre, Karlıeli from Eyalet of Rumelia and Lesbos Sanjaks. The borders of this province changed over the time (Ünal, 2002, p. 251-261; Ünen, 2013). Gallipoli, remained as the center of Eyalet of the Archipelago ***(****Eyālet-i Cezāyir-i Baḥr-i Sefid in Ottoman Turkish)*, until the 19th century (Şakiroğlu, 1993, p. 500-501; Payzın, 2008).

For shipbuilding activities, activities were started on the island and at the port. Şemsettin Sami stated that the Port of Limnos was not very suitable for shipbuilding (Şemsettin Sami, 1314, vol . 5, p. 3998-3999). There were four ports named Moudros, Yurka, Kondiye and Pasha Port; the busiest of these was Moudros (1312 Algerian Bahri Sefid Yearbook, p. 304).

On September 17, 1849 (September 29, 1265), notification was made to *Qaimaqam* of Lemnos from the central-local government to carry out things in order. In the document published by *Qaimaqam* of Lemnos Hüseyin, he stated that a license will be sent to the delegation that will be created for the construction of the ship; the dimensions of the ship to be constructed will be notified and a license will be issued accordingly (BOA, A.}MKT., 225, 19).

While the local administrators were working on the construction of the shipbuilding mechanism on the island under certain conditions, we see that the ships built for the Imperial Arsenal (Tersâne-i Âmire) and registered in the Shipyard between 1859 and 1861 were built by the *Kapudan Pasha* with shareholder shares. In the other phase of the shipbuilding period, which covers the later 1791-1831 period, we can see that the ships were generally built by the local administrators for the Imperial Arsenal. The captains were responsible for all kinds of maintenance of the ships during the construction phase. Ships with shares given in the table below are embezzled by individuals with different shares until they are delivered to the Imperial Arsenal (Table 1).

The first shipbuilding work on the island dated back to 1780. Before the ship's construction was completed, it had to be re-registered in case the ship's shareholders changed before it was launched. In the document dated 4 December 1861 (1 Cemaziyelahir 1278) , the "*şethiye*"[2] called *"Akbahri"* with a carrying capacity of 1200 kilos and a length of 13 "*zira"* (Hinz, 1990, p. 68) was constructed under the leadership of Captian Osman from Rize, while its 20 shares of 40 shares were owned by the Cezayirli (Algerian) Merchant Osman Remzi Efendi, 10 shares by Emirzade Hüseyin Lütfi Efendi, it was allotted as 5 parts as the property of Captain Ahmet bin Süleyman and 5 parts as the property of Seydi İbrahim bin Hüseyin; with the joint sale

[2] *"Şethiye"* was a two-masted ship called also "Şıhye" for short which moved only by sail (Bostan, 2005, p. 390; Mufassal Ottoman History, 1955, vol.3, p. 1520).

of Captain Ahmet bin Süleyman's share to Hüseyin Lütfi Efendi, the port book records had to be changed.[3] On the 21st of the Rebiulevvel, which was one of the blessed months for this ship, it was requested to issue a certificate (in the form of a deed to the completed ships) for this ship (BOA, A., DVN. 173, 88; BOA, A.DVN, 174, 15). On February 5, 1862 (February 5, 1278), we again see a change in the full stock of the same ship, which was 40 pieces. It was stated that 30 pieces of the ship belong to the Cezayirli (Algerian) Merchant Osman Remzi Efendi, 15 pieces belong to Emirzade Hüseyin Lütfi Efendi, who was a merchant, and 5 pieces belong to the Lemnos Island Customs's *Emini* İbrahim Efendi. For the ship constructed on the island of Lemnos, it was requested a *sened-i bahri* to be given again. However, due to the sale of 5 pieces of İbrahim Efendi's shares to his friend Hüseyin Lütfi Efendi, who was his deputy, it was necessary to re-notify the port (BOA, A.DVN, 176,14). As it can be seen, the ship records were also changed when any differences made in the shareholders of the shares in the partners of the ships.

Table 1: Ships Given Certificate of Bahri in Lemnos Island

Date	**Captain**	**Weight and Length**	**Ship Type - Name**	**Shareholder (Total 40 pieces of shares)**
March 10, 1859 (5 Saban 1275) [4]	Captain Yorgi Dimitri Reis from Lemnos	100 kilos load carrying capacity and 10.5 "*zira"* (13,85 meters) length	The ship named Bozoklu of the "Gulet" type	20 pieces of share belongs to Kirdofo, 5 pieces of share belong to Benjamin Zimnin and 15 pieces of shares belongs to the captain
March 10, 1859 (5 Shaban 1275)[5]	Yani Varlu From Lemnos	2000 kilos load carrying capacity and 4,5 *"zira"* (5,93 meters) length	"Bombarde" type	25 pieces of shares belongs to Nikola Kolonya, 10 pieces of shares belongs to Lifor Lefter, and the remaining 5 pieces of shares belongs the captain.
March 10, 1859 (5 Saban 1275) [6]	Iestol Tiryaki Reis from Lemnos	650 kilos load carrying capacity.	A ship named Tiryade of the type "B(P)arça"	20 pieces of shares belongs to Kirastoraki and other 20 pieces shares belongs to the captain
March 10, 1859 (5 Saban 1275) [7]	Atnas Nebaki Reis	1000 kilos load capacity 12 "*zira"* (16,06 meters) length	A ship named Nikola "Bombarde" type	12 pieces of shares belongs to Kasap Menoli Zimninin 5 pieces of shares belongs to Yani Luyizi and 23 pieces of shares belongs to the captain
February 25, 1860	-	-	9 Ships	-

[3] The most common of the *"Zira"* was 54 cm, and the one used in canal measurements was 145.6 cm.
[4] BOA, A., DVN., 139, 42 .
[5] BOA, A., DVN., 139, 43.
[6] BOA,A.,DVN., 139, 35.
[7] BOA, A., DVN., 139, 41.

(3 Saban 1276) [8]				
February 10, 1861 (29 Recep 1277) [9]	Hasan, son of Tunuslu (the Tunusia) Abdulkadir	18 "*zira*" (23,74 meters)length with two masts with a carrying capacity of 5000 kilograms	The ship named "Afeti Bahri"	10 pieces of shares belongs to Yusuf Ağa from Lemnos, 5 pieces of shares belongs to Son of Tiryat Haji Yorgi and 25 pieces of shares belongs to the captain

When we look at the three-year shipbuilding activities in the table given above on Lemnos Island, we see that 15 ships had been constructed in total, together with Akbahri, whose shareholders had changed. This number was quite high for a small island.

3. Officials Worked In Shipbuilding

One of the main differences that distinguishes the Voivoda from *muhassil* and *mutassallim* in terms of tax collection is that he could undertake the collection of not only the *timar*, the *zeâmet* and the high military class, but also the taxes and foundation revenues of the central treasury (Özvar, 2013, vol. 43, p. 129). The most important official in Lemnos was Voivoda Abdülkerim Ağa. This person, who was the most important power of the government in the region and was the first degree person in shipbuilding many times. Unlike other shipbuilding Ottoman rulers, the voivoda was exiled to Rhodes Island and killed, together with his brother Yusuf Bey, due to the oppression he committed against the people. The remaining inheritance of the individuals, the debts of the voivode to the state were deducted in the document dated 23 July 1797 (28 Muharrem 1212). The state received the remaining 70 thousand kurus from the 110 thousand kurus money given to him by the state for the frigate he built on behalf of the state. Again, the state requested that the 55 thousand cents given to the voivode be returned, and the remaining part of the 10 thousand in advance be returned by paying part by part, and it was reported that if the payment was not made, the entire inheritance of the voivode would be confiscated. In the document dated 3 June 1799 (29 Zilhijce 1213), it was stated that the estate and properties of the voivada's inheritance were completely taken (BOA, HAT, 207, 10978; BOA, AE.SSLM III, 249, 14463).

The first type of ship he constructed was two swallows. The swallow was one of the ships that used sails, although its main thrust was oars. According to İdris Bostan, this ship is one of the thin navy ships and is a smaller warship than a frigate. It was used for communication and patrol service. It was used not only on the Danube, but also on the Egyptian coast. A large swallow constructed in 1791 contained 100 people (Bostan, 2003, p. 136). In the document dated March 13, 1788 (5 Cemazielahir 1202), the *Divan* Voivode of Lemnos Abdülkerim asked the workers to increase their work in order to complete the two swallow ships on time. 1500 kuruş and then 3250 kuruş were given for the construction of ships in the center of Lemnos as soon as possible; it was reported that the swallows are almost finished. Later on, 6500 cents and 3500 cents were transferred from the centre twice for this work again; a total of 14,750 cents were spent (BOA, C..BH, 192, 9005). Ships were requested to be completed immediately. Five weeks later, in the *tahrir* sent to Voivode of Lemnos Abdülkerim, as there was a possibility of an expedition to Russia, it came to the fore to land a navy in

[8] BOA, A., DVN., 150, 38.
[9] BOA, A.DVN, 161. 26.

the Black Sea, and it was requested that the two swallow ships in Lemnos be completed and sent (BOA, C..BH.., 208, 9720).

Ship construction of Lemnos Voivoda continued. Abdülkerim Ağa was personally responsible for the construction of two chalopes with a length of 25 *zira* (32.98 meters) in the document received on 29 August 1791 (29 Zilhijce 1205). 3000 kuruş was given to the voivode in the initial phase of the construction of the ship; later on, 6000 kurus was requested, but 3000 kurus was sent from the Chief Accountant (BOA, C.BH, 220, 10232).

For a frigate with a length of 53.5 (40.55 meters) *zira* constructed by Abdülkerim Ağa, 15,000 kuruş money and 500 scales of raw iron were sent to Lemnos Island on 28 July 1793 (29 Zilhijja 1207); it was requested that the construction of the ship be started as soon as possible (BOA, AE.SSLM.III, 177, 10611).

Workers were appointed for the galleon being constructed by Abdülkerim Ağa on the Coast of Lemnos Island; information about the food to be consumed by the workers was also given. In the document dated May 18, 1796 (11 Zilkade 1210), it was stated that an engraver, caulking worker and a chief reel man were sent to be selected for the ship's needs. It was decided to give a daily wage to the workers selected and appointed by Abdülkerim Ağa. A daily wage of 60 kuruş per caulker, 50 kuruş per engraver and 40 kuruş per chief reel man was given. It was decided to give 100 dirhams of lamb (Sahillioğlu, 1994, c. 9, p. 368) for chief engraver and reel man, 300 dirhams of lamb and 100 dirhams of rice and 12.5 dirhams of plain oil, 2 breads per caulkers per day. 6 bread, 400 kuruş meat, 300 kurus rice, 372 kurus plain oil were spent on the workers (BOA, C.BH.., 21, 1012).[10]

We see that in some cases there were problems with the timber sent for the ship. In the document dated 5 May 1796 (27 Shawwal 1210) , 550 scales of timber were cut from the Sasallu and Balayanlu groves of the Komotini District and transported to the piers for the frigate constructed by the Divan Voivode of Lemnos Abdülkerim Ağa on the island of Lemnos. While the remaining part of the timber was requested to be cut, the transportation of the cut goods was postponed under the pretext that the thief bandit would steal the goods; since the frigate was about to be completed, the captain and stagers were sent from Istanbul to ensure that the launch of the ship would not be delayed. It was requested that the timber be cut and sent immediately; the situation was reported to the chief treasurer. A week later, we see that the shipbuilding works continued at the local shipyards. We see that the Chief Accountant was asked how much money and iron (ahe) was given for the six frigates and three galleons which were constructed by Abdülkerim Ağa Voivode of the Lemnos Divan; Ömer Ağa, Mütesellim of the Menteşe Sanjak, one of the Kapıcıbaşı of the Dervish Lodge in Bodrum; Muratibzade Captain Hasan(Baykara Taşkaya, 2020, p. 159), the Mütesellim of Rhodes in Rhodes; Numan Bey from İnegöl in Gemlik; Osman Bey in Sultaniye; El-Hac Ali Ağa in Sinop; Kasap El-Hac Osman Ağa, in Erikli; Keleş Ahmet Bey, Muhafiz of Sukhumi in Sukhum. 20 thousand was given for the Three-Bay Galleon of Rhodes (Çırpan, 2020, p. 48), which a missive was sent for two or three months. Due to the completion of the frigate on the island of Lemnos, it was requested to bring the captain and oarsmen. It was reported that the workers who would work in the transportation of the timber and construction of the ships of Lemnos and Bodrum Districts and in the shipbuilding were supplied from the surrounding districts. While the necessary allocation and the need for iron were reported for the construction of these ships, it was

[10] The theoretical weight of the Islamic dirham is 2.97 grams.

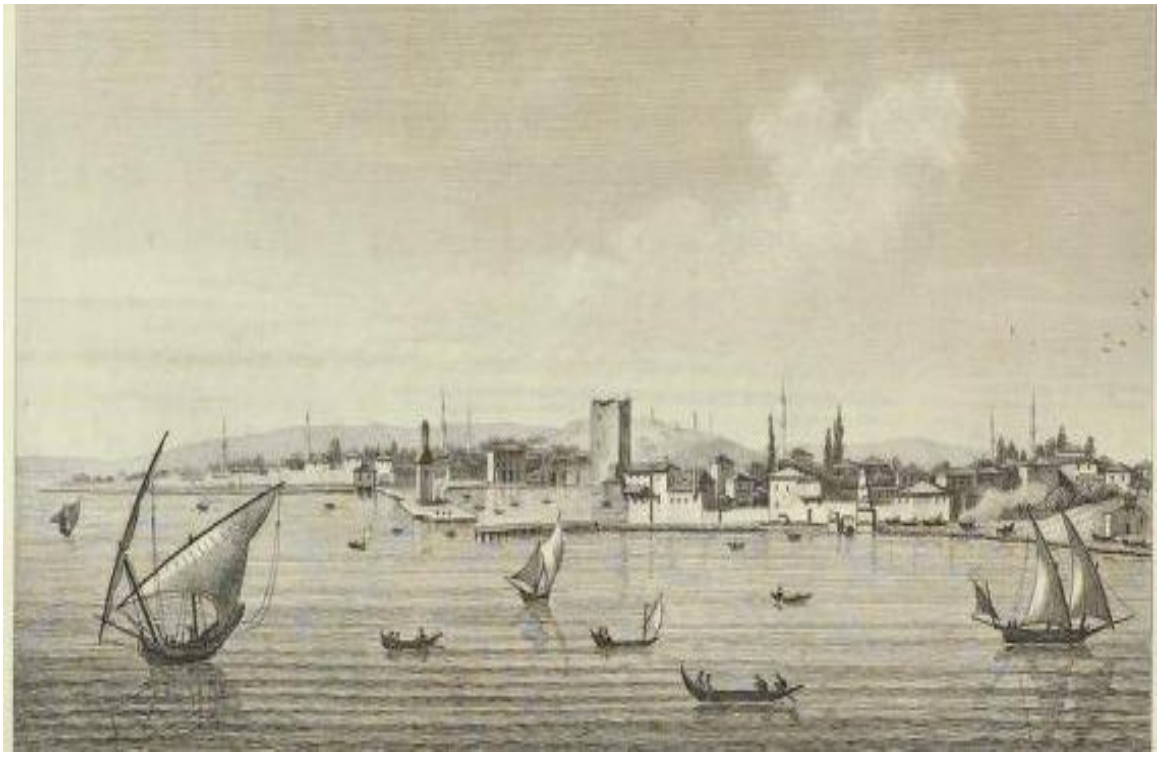
noted that the *akçe* written as embezzlement was not delivered where there was a *Bina Emini*. In total, 3 loads of 3910 kuruş were spent on the expenses of these ships; 10.480 scales were sent from Cephane-i Âmire *"arsenal"* as iron and nails. In addition, 3 loads of 63,797 kuruş were spent for the completion of the ships; it was requested to send another 800 scales of iron for the needs (BOA, C..BH.., 36, 1713).

In the document dated March 3, 1797 (7 Zilhijce 1211), the frigate, which was 53.5 (40.55 meters) *zira* long, constructed by Lemnos Divan Voivoda Abdülkerim on the island of Limnos, was completed by the *bina emini* Abdülkerim, which was completed by Captain Ahmet Ağa, costing 11,347 kuruş in total and the accounting book was delivered to the Defterdar Efendi via the *mabeyn*. 1150 scales of raw iron; 300 kuruş was spent for the architect's expenses (BOA,C..BH, 18, 883). Seven years later, Voivode Abdülkerim Ağa continued shipbuilding in Lemnos. In the document dated April 2, 1804 (21 Zilhijce 1218), it was stated that some of the 550 pieces of timber that had to be cut from the Sasallu and Balayanlu groves in the Komotini district for the frigate's needs had been cut beforehand and transported to the pier. The remaining part of the timber was not cut under the pretext of a robber bandit. Due to the delay in this work, since the frigate's completion was near, it was reported that the captain and the stagers arrived from Istanbul to launch the ship. In the notification sent to the *Defterdarlık*, it was stated that a penalty would be applied in case of delay and that the cut trees - especially the Akburhan tree timber - should be immediately transported to the pier (BOA, C..BH.., 36, 1702).As can be seen, we see that Abdülkerim Ağa worked as a pioneer in the construction of 9 different types of ships between 1788-1804.

Picture 1

Local People Living in Lemnos (Choiseul-Gouffier, 1782, p. 32).

Picture 2



Gallipoli (Choiseul-Gouffier, 1782, p. 439).

We reach about shipbuilding is the document that the cost will be obtained from *mukataas*. The renting of the places owned by the state or foundations to private individuals or institutions in certain situations and the rent paid is called "*mukātaa-i zemîn, icâre-i zemîn*" and in short "*mukataali*"(Genç, 2006 , vol . 31, p. 129). In the document dated 9 December 1781 (22 Zilhijce 1195), the amount specified for the expenses of the galleon to be constructed by Gazi Hasan Pasha in Lemnos was stated as "the collection of the money from the *Kastamonu Mukataa* property for the year 95" (BOA, AE.SABH.I., 300, 20197).

Since the work of transporting the materials necessary for shipbuilding to the island was carried out by ships, there were sometimes troublesome processes during this process. In the document dated March 2, 1791 (26 Cemazielahir 1205), the former *Ayan* of Tekfurdağ (Tekirdağ) in Lemnos, Osman Ağa, was commissioned to construct the ship with a length of 53.5 (40. 55 meters) *"zira"* and for the ship, 2260 pieces of larch and 1158 pieces of pine timber from Thassos Island were requested to be cut with the help of Mahmut Ağa, the Deputy "*Ayan" (landed proprietor in Ottoman empire)* of Komotini. 47 scales of this timber were cut; it was ensured that the goods loaded on the ship were delivered to the island by paying a shipping fee of 850 kurus (nevl). The work of cutting the timber and transporting the timber of the frigate due to the trouble experienced during its transportation to the pier was given to *Kapicibasi* Osman Ağa; this person carried out the transportation by ships from Chios (BOA, C..BH., 17, 826). Another construction activity of **"**Ayan" was for a frigate with a length of 50(37.9 meters) *"zira*". The document that came one year later to the island of Lemnos was related to the appointed engineer, journeyman and mountain architect, keeping the salary of the auger workers and reporting the expense amount to the Chief Accountant. A total of 175 kurus expense record was kept, 50 for an engineer, 50 for an architect, 25 for a journeyman, 25 for a mountain architect, and 25 for an auger worker (BOA, C..BH., 117, 5672).

In the document dated July 9, 1801 (27 Safer 1216), we see that Osman Ağa, one of the *Dergah-i Ali Kapıcıbaşı*, did not send timber for shipbuilding in Lemnos. *Ayan of Yenice Kapıcıbaşı* Mustafa Ağa tried to supply the timber, but; the person who was the deputy of the commissioner of Komotini District was given the job of bringing the timber. Although the timber was sent from Rumelia and Thassos Islands by *Bina Emini* Anton to 150 kurus, timber from Yenice Karasu District to150 kurus; since not enough timber was sent, the case was taken to the court. An opposition was made to this situation by *Ayan of* Yenice*;* it was stated that the Komotini District had never sent timber and it was requested that the timber be sent. The ship's architect Hristo, engineer Menol, auger Vasil, caulker Istnat Dimitri were appointed and these people were registered with the Chief Accounting Office. Expenses were tried to be carried out by sending a remittance of 5000 kurus from the income of the farms of the island of Lemnos in 1216; works tried to be carried out with 10 thousand kurus given from Imperial Foundry (*Tophane-i Amire)* and the assistance provided by *Kapıcıbaşı*. In particular, 10 thousand kurus aid was given from the Imperial treasury *(Hazine-i Amire)*; 2000 kilos of wheat and barley were transported from farms around Lemnos for the subsistence of the workers (BOA, C..BH.., 210, 9811). Again, in the document four months later for this ship, Seyid Bey, one of the Hassa musketeers, was assigned to conduct an exploration and inspection regarding the cost of the galleon being constructed by Osman, one of the *Dergah-i Ali Kapıcıbaşı*, in Lemnos. It was decided to examine the records of the ledger that Seyid Bey created as a result of the examinations he made by going to the region (BOA, C..BH.., 73, 3458).

The construction of another frigate was about the ship with a length of 53.5 (40.55 meters) *"zira"* to be made by Kara Silahtar Hacı Mehmet Ağa in the document dated 25 January 1797 (26 Recep 1211). It was stated that the allowances of two mountain architects and two bailiff sergeants to be appointed from Imperial Arsenal *(Tersane-i Amire)* were given to cut pine timber from Thassos Island and from Koca Ormanlar in Komotini (BOA, C..BH.., 28, 1310). 250 kurus for the architect, 500 kurus in total; the fee of 250 kurus per person and 500 kurus in total was transferred to two mountain architects from imperial treasury. There were also cases where the wages of the tradesmen who were in charge of shipbuilding were covered by the person's own *mukataa.* The person requested that the cost of the frigate he had constructed on the island of Lemnos to be deducted from the cost of "*cebelü" (Sipahis had to train a soldier when they earned 3000 akçes from their fief lands. The cavalry trained and armed by the sipahis are called cebelu)* on his *mukataa*. It was recorded in the books belonging to the Chief Accountant and the *Malikane Kalemi* that the income of the Kara Silahtar Hacı Mehmet Ağa, the *"miri"* mukataa to be received this year, which belonged to Seyid and Ömer Ağa, was 14,248 kuruş. Necessary notification was also made to the Imperial Mint *(Darphane-i Amire)*. Eight months later, in the document, 7500 kurus was sent for this frigate and a letter was sent about the Yalnızçam timber cut from Thassos Island. While oak timber was requested from Rumelia to start the construction, it was reported that a transfer of 10 thousand kurus would be made for the transportation costs of the workers. Along with the cost of timber from Thassos Island, which amounts to 1710 kurus, a total of 7500 kurus of timber costs of 2471 kurus were issued for the Rumelia account (BOA, C.BH, 41, 1910). On May 6, 1798 (20 Zilkade 1212), it was requested that 250 scales of iron available in Imperial Arsenal be supplied for the supply of iron (ahe) required for this frigate. With the port master and *burgucubaşı* reporting the situation; it was ensured that *Bina Emini* Süleyman, who saw the situation, brought the iron to the shipbuilding site (BOA, C..BH.., 241, 11180). For the frigate to be constructed one and a half months later, the mountain architects sent from Istanbul cut 1200 scales of 1400 weighing oak timber from Yenice, Komotini and Sarışaban districts, and it was ensured that the transport work was carried out by Burgucu's son Ömer from

Yenice District with two ships. The person brought 862 scales of timber to the region (BOA, C..BH., 195, 9167). In the document four months later, it was requested that the timbers cut from the districts in Komotini, Thessaloniki, be brought to the region for the frigate. It was emphasized that 100 pieces of timber from Thessaloniki and the remaining 358 scales should be made ready immediately. While Müfti Efendi and Salim Bey presented a memorandum for the cutting of timber from the Komotini Mountains; The 80 pieces of sackcloth required for the ship and the remaining timber were immediately transported to the island of Lemnos (BOA, AE. SSLM. III, 147, 8866). On July 5, 1800 (12 Safar 1215), 7131.5 kuruş was given for the frigate from the year 1218; the fact that the French architect was not given 200 kuruş was recorded as a record in the book. While requesting this person's salary of 3125 cents to be paid; the total cost of this ship was 40.06.5 kurus per *yük*.[11] While 46,761 kuruş was sent from the Treasury; an additional 57,245.5 kuruş was requested. In addition to the total amount, 81,760 kuruş money was withdrew from the treasury (BOA, C..BH.., 168, 7948). In the document received on May 13, 1801 (29 Zilhijce 1215), a transfer of 11,370 kuruş timar income (cebelü) belonging to the year 1213, which was ordered to be delivered to Imperial Foundry, was made. Before that, the same person had a ship constructed and only 56,500 kuruş was paid for the cost of 71.32.5 kuruş for a large frigate registered with Imperial Arsenal. According to the contract signed with Kara Silahtar Hacı Mehmet Ağa, 21,926 kuruş timar income of 14,136 kurus belonging to the year 1213 of *miri mukataa*, which was formerly under the auspices of Osman Ağa, was also sent to this frigate (BOA, AE. SSLM. III, 352, 20191). The material resource, which was important for the ship, was sent from various places and most importantly by the state.

Along with the officials working in the construction of the ships in the archive documents; there is also information about the exterior decoration paints used in the construction of the ship. In the document dated March 27, 1797 (28 Ramadan 1211), the subsistence of 1180 kurus was sent to the captain, chief and other officials who came from the Imperial Arsenal to send the two corvettes to Istanbul to be launched in Lemnos and Rhodes; It was requested that the log book of the ship's construction be delivered to the *defterdar*.[12] These two corvettes were constructed to combat piracy; in this way, it was desired to increase the number of ships in the navy. In this book, a total of 577 kuruş expense records were kept for the *Kapudan Pasha*, 80 for the master skipper, 60 for the second skipper, 60 for the sailor, 30 for the *çavuş*, 47 for 47 for the water officer (BOA, C.BH, 238, 11037). In the document five months later, an expense of 1876,5 kuruş was recorded to the Chief Accountant for the two corvettes constructed in the shipyard and on the island of Lemnos. The cord length of the *çuka* (the neck of the ship) was 102 m; the length of the *çuka* covering the ship was 189 m. While the decorations on the sides of the ships were requested to be made in red; this fee was registered in the *Mabeyn Emiri* Accounting Office of the Imperial Arsenal (BOA, C..BH.., 19, 932).

Halil Ağa, the Voivode of Lemnos, took part in shipbuilding as a local administrator in the region. In the document dated January 24, 1803 (30 Ramadan 1217), the book showing the material and cost of the frigate constructed by Voivode Halil Ağa on the island of Lemnos was given by Captain Mehmet Emin keeping the records of the individual expenses (BOA, D..BŞM.TRE. d., 15393)[13]. In the document dated May 3 , 1805 (3 Safer 1220) , ın the expense book of this frigate built on the island of Lemnos, information is given that 55o scales of raw iron were sent in 1805 (BOA, D..BŞM.TRE.d., 15409)[14].

[11] *Yük*, goods or amount of one hundred thousand kuruş.
[12] *Corvette (French: Corvette)* is the name of a lightly armored warship larger than a coastal patrol ship and smaller than a frigate.
[13] This ledger is 15.5*45.5 sized paperback and 3 pages without marbling.
[14] This ledger is 16.5*42.5 sized paperback and 8 pages marbling.

Table 2: Cost of Frigate Constructed by Lemnos Voivode Halil Ağa[15]

Officials and Expenditures	**Cost**
Captain's wage for 20 days	100 kuruş
Hodja's monthly fee	20 kuruş
Wages of 6 çavuş working under the captain's command	80 kuruş
Kitchen fee spent for the captain, hodja, çavuşs during the Ramadan	300 kuruş
Engineer Manolki's wage for 20 days	143 kuruş 13 coin
Mimar Hirasto's wage for 20 days	86 kuruş 23
The chief journeyman's wage for 20 days	56 kuruş 27 coin
Burgucubaşı's wage for 20 days	56 kuruş 27 coin
Mountain Architect's wage for 20 days	26 kuruş 27 coin
Total	867 kuruş 117 coin
Salary given to engineers, architects, journeymen, burgucubaşı and mountain architects during Ramadan	555 kuruş
Advance fee given to chief blacksmith	200 kuruş
Per diem for çavuş went to Athens	25 kuruş
Per diem for çavuş went to Thessaloniki	25 kuruş
Per diem for çavuş went to Komotini	26 kuruş
Total	1700 kuruş

In the document dated September 17, 1803 (30 Cemazielevvel 1218), the book of Mehmet Emin Kaptan, who was assigned with the completion of the frigate constructed on the island of Lemnos, showing the cost of the ship in 1218 (BOA, D..BŞM.TRE.d, 15416).[16]

Table 3: Frigate Expenses of Mehmet Emin Kaptan on the Island of Lemnos[17]

Officials and Expenditures	**Cost**

[15] BOA, D..BŞM.TRE.d... , 1540.
[16] This ledger is 15.5*45 sized paperback and 3 pages without marbling.
[17] BOA, D..BŞM.TRE.d, 15416.

Chief Captain	150 kuruş
Chief Hodja	30 kuruş
Chief Çavuş	120 kuruş
Chief Engineer	215 kuruş
Chief Architect	130 kuruş
Chief Journeyman	85 kuruş
Cheif Auger	85 kuruş
Chief Architect	40 kuruş
Ahmet Çavuş's per diem in Istanbul	50 kuruş
Suleyman Çavuş's per diem for Lesbos	40 kuruş
Customs transportation from Imbros Island (Freight)	110 kuruş ve 45 kuruş[18]
Blacksmith's wage	200 kuruş
Chief architect Kebaris's wage	30 kuruş
Captain's expense	18 kuruş
Transportation cost of the edge timber purchased for closing the stone gaps (Freight)	636 kuruş ve 216 kuruş
Freight fee of shipping from Samothrace Island	150 kuruş ve 636 kuruş
Fee for transporting grade timber from Thessaloniki with the captain's ship	203 kuruş ve 28 coin
Carpenter and other worker (sefineyi evvel -first worker)	530 kuruş 12 coin
Carpenter and other worker (sefineyi sani- second worker)	555 kuruş 9 coin
Carpenter and other worker (sefineyi salis- third worker)	611 kuruş 7 coin
Carpenter and other worker (sefineyi rabi -forth worker)	606 kuruş 6 coin
Total	4120 kuruş 62 coin

[18] The first fee given here is the general amount; the second is Freight, that is, the transportation fee.

Table 4 :16 October 1803 Frigate Cost of Captain Mehmet Emin Kaptan [19]

Officials and Expenditures	**Cost**
Chief Captain	100 kuruş
Hodja	50 kuruş
Çavuş	120 kuruş
Chief engineer	215 kuruş
Chief architect	130 kuruş
Chief Journeyman	85 kuruş
Chief Auger	85 kuruş
Fee of Architect Febar	40 kuruş
Freight charge of timber pine obligatory from Thassos Island	114 kuruş
Annual fee of Chief Architect Mebaris	30 kuruş
The cost of Süleyman Çavuş going to the capital	50 kuruş
Mehmet Çavuş's per diem	20 kuruş
Fee of captain's miscellaneous expenses	20 kuruş
The total wage given to the blacksmith	100 kuruş
(?) freight given to the shipyard	84 kuruş 30 coin
Wage for Worker (sefineyi evvel -first worker)	424 kuruş 28 coin
Wage for Worker (sefineyi sani -second worker)	454 kuruş 10 coin
Wage for Worker (sefineyi salis -third worker)	439 kuruş 23 coin
Wage for Worker (sefineyi rabi - forth worker)	447 kuruş 29 coin
Total	3592 kuruş 120 coin

[19] BOA, D..BŞM.TRE.d, 15416.

Again, in the document dated 16 October 1803 (29 Cemazielahir 1218) belonging to the same person, the book regulating the expenses of the shipbuilding of the frigate constructed in Lemnos belonging to the year 1218 was given[20] (BOA, D..BŞM.TRE.d...,15419). From these three separate ledgers, we can track where costs were incurred for shipbuilding. In particular, the expenses were made for the people working in the shipbuilding and the materials necessary for the construction; again, we can see from the table that the materials required for construction were procured from outside the island.

Shipbuilding work had to be done quickly. If the ships that were constructed were not finished and sent in a certain time, there was a situation that the ship's material would perish. In the document dated February 12, 1794 (11 Recep 1208), in the task given to the *mütesellim* by Vizier Hüseyin Pasha, it was requested that 1400 pieces of timber, which were necessary for the shipyard to be cut from the Thessaloniki Mountains with a fee of 8 kuruş and transported to the districts with transportation fee of 5 kurus. For the frigate constructed in Lemnos, Seyyid Yusuf and İbrahim Ağa were held responsible for the cutting and transportation of the oak and elm timbers cut from the Pişona Forest in the Kelemerye District near Thessaloniki; it was requested that the money embezzled by these individuals be collected and sent (BOA, C..BH., 211, 9861). For another frigate constructed by the same person, on 28 January 1804 (15 Shawwal 1218), due to the postponement of the appointment of *bina emini*, 40 thousand kurush was transferred from Imperial Arsenal and it was requested to work for the completion of the ship. It was reported that the annual expense of the ship was recorded, the bills were collected, and this book was sent to Istanbul. If the money was not sufficient in the memorandum sent to the captain, an additional 20 thousand kuruş would be sent and in order to complete the construction of the ship within five months. It was reported that the construction of the ship should be started as soon as possible if not, timber may perish (BOA, C.BH., 260, 12021). A month later, the wages of engineers, architects, chief journeyman and other employees used in the construction of the frigate constructed by Vizier Hüseyin Pasha on the island of Lemnos were given. It was thought that the 120 cents paid to 50 çavuş caused excessive expenses; it was decided to cut salaries. Again, except the captain and two çavuşs, the salary of the chief journeyman was requested to be cut off. Later, it was stated that 585 kuruş was paid for the captain and other employees (BOA,C..BH.., 42, 1987).

Table 5: February 22, 1804 the Expense of the Frigate Constructed by Vizier Hüseyin Pasha on the Island of Lemnos[21]

Officials and Expenditures	**Cost**
Engineer	215 kuruş
Architect	130 kuruş
Journeyman	85 kuruş
Blacksmith	85 kuruş
Burgucubaşı	40 kuruş
Fee of Rumeli Mountain Architect Melankinat	30 kuruş

[20] This ledger is 15.5*45 sized paperback and 3 pages without marbling.
[21] BOA,C..BH.., 42, 1987.

The fee of the engineer who later came from Thessaloniki	40 kuruş
Engineer's fee from Thassos	30 kuruş
Captain Emin's monthly fee	150 kuruş
Hodja	30 kuruş
Total	835 kuruş

Caulk, which means to seal the wooden decking with putty so that it is waterproof in architecture, is also used in the sense of repairing the ship's coating with putty & caulk. In the document dated 16 July 1804 (7 Rebiülahir 1219), a caulker was requested from the Imperial Arsenal to bring caulk to the frigate from *Dersaadet*, which was being constructed on the island of Lemnos and was about to be launched; a fee of 30 kuruş for this person and 25 kurus per person for 20 journeymen requested to be paid. A total of 22 people were paid 550 kuruş from the Imperial Treasury. While Imperial Treasury asked to cover the 20 kuruş per diem expenses of the master logger who would cut the tree stumps; it was specifically stated that the person to be found is competent in his job; the *omca* that would be brought to the island was procured from Imperial Arsenal in Plovdiv (BOA, C..BH.., 39, 1858).[22]

Ayans and mütesellims who were local power centers could be solely responsible or shareholder for shipbuilding. There were also cases where the cost of the ship was collected from the salary of the person who constructed the ship. In the document dated September 25, 1807 (22 Recep 1222), the civil servant salary was deducted in return for the 40,000 kurus paid in cash by Ayan of Çan El-hac Hacı Mehmet Emin Ağa, who was appointed as an officer in the construction of the frigate on the island of Lemnos; however, there was no information about the book record related to the deduction of *Ayan*. A cash payment of 1000 kurus was also made to the treasury. Since it would not be correct to demand a refund of the carpenters' fee of 210 kuruş; an order was written about the situation and sent to the Chief Accountant (BOA, C..BH.., 167, 7900). In the document sent by *Ayan* a month later, the cost of the frigate constructed on the island of Lemnos in 1217 was 1110 kuruş. It was deemed appropriate to deduct the cost of the ship, which amounts to 40 thousand cents in total, by deducting it from the person's civil service. Although this situation seemed to disturb some people, it was reported that the deduction from the person's civil service did not create a negative situation (BOA, C..BH.., 22, 1051). There were also some cases where payments were deducted against the salaries of individuals, as in this example.

We see that the Lemnos Shipyard became obsolete over time due to the fact that it was a long-term shipbuilding site. Again, we can follow from the documents that the managers in other places also constructed ships on the island. In the document dated 5 December 1831 29 Cemazielahir 1247), the ships to be constructed in Lemnos were sent to Lesbos. *Nazır* of Lesbos Mustafa Ağa ordered the construction of a 55.5 (42.06 meter) *zira* frigate at the Lemnos Shipyard. Since Lemnos Shipyard was thought to be very costly to repair due to its aging, it was requested that the frigate, which was requested to be constructed in the documents written to Imperial Arsenal, be constructed in Mytilene with appropriate dimensions (BOA, C..BH.., 49, 2342). Eight months later, it was written by the Imperial Arsenal that two galleons and a frigate

[22] *Omca* is a cut tree root, vineyard stump.

with a length of 55,5 (42.06 meters) *zira* in Lemnos were allowed to be constructed and their timber would be supplied in a short time (BOA, HAT, 364, 20161). Again, *Nazır* of Lesbos, Mustafa Ağa, wrote to the state to present the receipts of the auger workers from the Chief Accountant, together with the engineer, journeyman and mountain architect, for the construction of a frigate with a length of 55 (41.69 meters) *zira* on the island of Lemnos. It was reported that if the money was not given, the state would lose money from this business. For this work, 50 kuruş to the engineer, 50 kuruş to the architect, 25 kuruş to assistant architect, 25 kuruş to the chief auger was paid (BOA,C.BH.., 117, 5664).

The personnel working in shipbuilding on the island was also the captain who provided the necessary materials. Salaries, expenses and transportation costs to be provided to the working employees were provided from the Imperial Arsenal under the leadership of the captain. We see that the cases where ship expenses are sometimes deducted from *mukataas* and sometimes from the salaries of individuals are also reflected in the archive documents.

4. Launching of Ships, and Materials Used in Shipbuilding

The ships, which were constructed in provincial shipyards and successfully launched, were sent to Istanbul after the completion of the missing parts. In the document dated August 4, 1780 (3 Şaban 1194) regarding the 51.5 (39.03 meters) long galleon constructed under the auspices of El-Hac Captain Hüseyin on the island of Lemnos, Mustafa Bey gave the cost of the timber needed and asked to cut it from nearby areas of Istavroz. It was ensured that the shares of timber were also procured from different places. It was resorted to obtain two shares from the town of Siroz, one share from the town of Piroste, one share from the town of Zahte, and one share from the people of Bagran subdistrict of Thessaloniki District. These timbers were requested to be transported to the Istavroz Pier on the island of Lemnos. Although the Lemnos toll officer Çavuşzade Ahmad Resit Efendi and Captain İbrahim, who would cut the timber, and El-Hac Captain Hussein, who would build the galleon, wanted to transport some of the cut timber from Istavroz, but there were difficulties in the transportation. In the decree sent to Vizier *Kapudan Pasha* Gazi Hüseyin Pasha, the people were asked to help with this work in order to facilitate the transportation of timber (BOA, C.BH.., 255, 11783). In the document sent by Nazir Bey three months later, it was announced that 800 scales of raw iron, manufactured by the state being that it was needed and sent to the region, would be sent. After the construction process was interrupted for a while, as there was a need for 3000 more scales of raw iron, a notification was sent to the treasurer for this need. 77,918.5 kurus of this need was met from Mukataa property for the years 94-95. Again, 15.000 kurus was given by *Kapudan Pasha*; a total of 92.918,5 kurus was transferred. For the completion of the ship, 300 scales of nails (mesamir) and 500 scales of raw iron were given from the Center. While providing 92.918,5 kurus from Mukataa income; with the addition of timber costs and labor fees to this expense, a total of 97.203,5 kurus was spent. It was also reported that another 3.500 scales of raw iron could be sent for this ship to be given from the Cephane-i Âmire *(arsenal)* if necessary (BOA, AE. SABH. I., 182, 12151). On December 8, 1780 (11 Dhu al-Hijjah 1194) in Lemnos, it was asked to cut timber from the mountains of Istavroz and Thassos Islands urgently for the frigate galleon, the construction of which was started by Cezayirli *(Algerian*) El-Hac Captain Hüseyin and Felbi, one of the shipyard architects (BOA, C..BH.., 259, 11994) and in the document sent from Kapıkethuda El-Hac Captain Hüseyin dated July 3, 1781 (11 Recep 1195), a person named Hasyare Menaralya was asked to send the necessary raw iron, nails and various necessities for the frigate galleon. 1500 scales of raw iron were sent; and

500 scales of iron were requested to be sent immediately and delivered to the captain. A total of 14,344 kurus and 7 coins of expense was incurred for this work (BOA, AE.SABH.I.., 300, 20189).

A number of special materials and tools were used to transport the ships from the construction sites to the sea. A group of the Imperial Arsenal personnel was working at various stages of the launching process under the command of a navy captain (Özdemir Gümüş, 2010, p. 15). A summary of the expense accounting of a 53 (40,17 meters) *zira* long frigate which was constructed in 1782 in Lemnos and constructed by El-Hac Mehmet Aga is given. This ship was registered in the Imperial Arsenal. The ship's total cost was 7131.5 kuruş. The architect was given a salary of 3125 kuruş. By keeping a record of 46,761 kurus by the state; while asking to discuss and send 57,245.5 kuruş; by making a discount of 745.5 kuruş from the money requested to be sent; remittance was made for 56,500 kuruş (BOA, KK.d.., 5739, 102)[23].

In the document dated June 26, 1782 (15 Recep 1196), the ledger showing the materials required for the unloading of the frigate with a length of 51 (38.5 meters) *zira*, which was constructed and completed by the *Kapudan Pasha* Cezayirli (*Algerian*) Gazi Hasan Pasha on the island of Lemnos, is given below (BOA, C ..BH.., 199, 9336).

Table 6: Material List Sent From Istanbul for the Frigate to be Launched in Lemnos[24]

Equipment and Scale	**Number**	**Equipment and Scale**	**Number**	**Equipment and Scale**	**Number**
Equipments, tools in the shipyard	-	Equipments in the shipyard	-	Equipments in the shipyard	
Şehr-i Zafer(?)	6	Kit of Scaffold	-	Equipments in the shipyard *alat-ı maşa*	
Scaffold Scale 225 (each scale 25)	3	*Makaraha*	11	*Şehr-i Zafer*	
		Tunç Zeban[25]	11		
Total	9	**Total**	22	Scaffold	
				Scale 72 (Each Scale 18)	
Equipments in the shipyard	-	Equipments in the shipyard	-	Ammunition sent (fi 7 S year 1196)	
Manti Kapan [26]	-	*Aheni Kaşkaval*	14	Remanufactured and shipped tool parileyi	

[23] This ledger was a 12-page with a size of 44*17, bound and marbling.
[24] BOA, C ..BH.. , 199, 9336.
[25] Parts of some instruments that resemble a latch
[26] It is a device used in loading and unloading of ships, consisting of a movable pulley and a looped rope with one end attached to a pulley.

		Parile[27]		white Scale 272 (Each Scale 34)	
Makaraha	14		-	Equipments in the shipyard *Manti Kapana*	
Tunç Zeban	11		-	*Makaraha*	20
				Tunç zeban	
				Equipments in the shipyard *Aheni Kaşkaval Parile*	9
Total	25		14		36

While some materials were available on the island for the launch of the ship, we see from the documents that some of them were sent from Istanbul. From here, we see that after the shipbuilding was completed, most of the necessary materials were supplied from outside the island.

Table 7: Ammunition List required for the frigate to be constructed in Lemnos in the document dated September 26, 1793 (19 Safer 1208)

Equipments	**Number**
Alatı cedid (new tool)	7
Alatı cifre (slotted tool)	3
Alatı müsta'mil (usable tool)	15
Tunç zebanlı Makarrraha (pulley)	12
Cevb Müfred (shredder tool)	44
Ahen Ganca (hook)	9
Ahen varyoz (Big Iron Hammer)	10
Ahen zinye (Iron Bender)	10
Ahen nab hınzır (Big Iron Cauldron)	10

[27] A pulley consisting of pulleys with more than three latches; the work of carving the ends of the two trees and joining them together; caulking tool used for caulking lifeboat armos.

Bir bacak karnman(Antler)	2
Sehab hatıl (A layer of brick or lumber pulled every one or two meters to reinforce the stone Wall)	2
Sehab kanca (Shredder Hook)	2
Sehab kefkir (Perforated Container)	2
Varul (Barrel)	15
Nim fiçı (Basket)	10
Küçük revgan (Oil)	10
Havlı sevb (Fabric)	10
Ahen kazma	20
Deste çul	40
Çul kürek	30
Caru(b)medan(?) (Mop)	30
Alatı cerir(Rope)	22
Alatı müsta'mil serv-i sehi(Tool in the shape of a branch)	21
Alatı müsta'mil avman (a tool for floating supplies)	2
Müsta'mil avman(Floating Tool)	2
Salmasra (Rope Braided From Rope Wires)(Scale 10)	100
Mersil (the tool with arrow)	100
Bahri savlo (A thin rope measuring one or one and a half burgata, used to raise a sign for hoisting the starboard)	10
Hızılcu (sackcloth)	30
Hubul Zeban (Old Ropes)	100
Taşöz Adası'ndan kereste ve Alatı müsta'mil (Various tools)	71

Taşöz Adası'ndan Makarraha (pulley)[28]	14

In the document dated August 5, 1795 (19 Muharrem 1210), the necessary goods were supplied to the ships that were constructed in Lemnos, through Biga, under the auspices of Osman Bey, for the galleons constructed in Kale-i Sultaniye (Çanakkale). It was requested to send iron and money to there. It was stated that the necessary places for timber should be cut from the vicinity of Thessaloniki and from the Big Forests on the Rumelia side, opposite the Lemnos Island (BOA, HAT, 112, 4500) .[29]

A breakdown of expenses was given in the document dated 10 May 1796 (3 Dhu al-Qada 1210) for the frigate with a length of 53.5 (40.55 meters) *zira* which was being constructed on the island of Lemnos. It was emphasized that *Bina Emini* Kara Silahtar Hacı Mehmet Ağa was appointed and started his duty for the construction of the ship. For the construction, 200 scales of raw iron, 200 scales of narrow nails (*mismar*); 250 scales of iron were required. 1000 scales of raw iron, 100 scales of fesh *mismar*, 42,200 raw *mismar* was given from Cephane-i Âmire *(arsenal)*; 1000 kurus money was sent along with 200 scales of iron 37,297 kuruş was spent for the construction of the ship (BOA, C..BH.., 20, 988).

Even if there was no external threat, the provincial dockyards were also feverishly increasing their construction activities for the navy, apart from the central Imperial Arsenal. In order to increase the number of ships of the Navy, it was requested to launch the frigate constructed in Lemnos and to start the construction of a corvette with a length of 37.5 (28.04 meters) *zira* on the island on 27 December 1796 (26 Cemazielahir 1211) without wasting time. Four completed ships were also launched. Again, the 53.5 (40.55 Meter) *zira* long frigate was provided with the necessary timber and supplied many of its needs. In the ledger prepared by the architects of the Imperial Arsenal, oak and larch timber were taken from the forests near Yenice, Sarısaban and Komotini, and the timber would be cut by the Janissary Ağa Topuzluzade Hacı Mustafa Ağa, one of *Dergah-i Ali Kapıcıbaşı*; it was also requested that this work be done with the help of the people of the place where the timber be cut and the goods should be transported to the pier. It was requested that pine wood be purchased from Sanjak of Izmir and Taşöz Island at an affordable price; 400 pieces of pomegranate pine and stick pine timber were purchased and the ledger was requested to be sent. It was reported that the personnel necessary for the construction of the frigate should be provided, the timber necessary for the winter should be cut and prepared; and in the spring, the construction of the ship should be started with the transported timber (BOA, HAT, 205, 10715). It was requested to inform *Kapudan Pasha* how much raw iron would be used for this work at the discretion given; and it was also asked to inform *Defterdar Efendi* about the situation. In the document dated 30 July 1801 (19 Rabi-ul-Awwal 1216), the construction of a 50 cubit-long frigate was started in Lemnos, again in order to increase the number of ships in the navy; 300 scales of raw iron was sent from Istanbul as it was necessary. In 1215, 12,500 kuruş and 300 scales of raw iron were sent from that year's goods; 5,000 kuruş had to be sent back. The 7500 kuruş required for the construction of the ship was not sent; it was observed that the ship could not be completed despite the passage of one year. During this period, the workers continued to receive their wages. Hacı Osman Ağa, who was assigned to build the ship, was

[28] BOA, C..BH.., 142, 6850.

[29] The Three-Bay Galleon is a type of galleon that has three holds under their upper deck, which turns it into a full battery of guns when equipped with cannons.

dismissed because he was sick and old; it was requested to appoint someone else instead (BOA, C..BH.., 150, 7159).

The ledgers in the archive give us all the records necessary for shipbuilding and are very detailed. In the document dated October 10, 1796 (7 Rebiulahir 1211), the timber, supplies costs, master and labor fees of the frigate to be sent to *Dersaadet*, whose construction was completed under the leadership of Captain Ali, constructed by the *Nazır* of Lemnos Ahmet Ağa on the Island of Lemnos, were given (BOA,C..BH.., 18, 885). In this detailed ledger, expenses were given under the name of general expenses.

Table 8: 1796 Captain Ali's Frigate Expense [30]

Personnel and Equipment	**Expense**
A fee of 6 kuruş per person was given to 6 carpenters sent from the *Donanmayı Hümayun* via the translator bey	180 kuruş
Ba tahvil Makarraha(pulley)	524 Kuruş 5 Coin
Captain Ali's wage	330 kuruş
Ma Defteri mesarifat (Total expenses)	351 kuruş 5 Coin
Ma Defteri mesarifat (Total expenses)	435 kuruş 35 Coin
Ma Defteri mesarifat (Total expenses)	512 kuruş 15 Coin
Ma Defteri mesarifat (Total expenses)	534 kuruş
Ma Defter mesarifat (Total expenses)	448 kuruş 31 Coin
Ma Defteri mesarifat (Total expenses)	358 kuruş 10 Coin
Ma Defteri mesarifat (Total expenses)	481 kuruş
Ma Defteri mesarifat (Total expenses)	593 kuruş 5 Coin
Ma Defteri mesarifat (Total expenses)	639 kuruş 9 Coin
Ma Defteri mesarifat (Total expenses)	333 kuruş 37 Coin
Ma Defteri mesarifat (Total expenses)	477 kuruş 20 Coin
Ma Defteri mesarifat (Total expenses)	474 kuruş 35 Coin
Ma Defteri mesarifat (Total expenses)	378 kuruş 17 Coin

[30] BOA,C..BH .., 18, 885.

Total	7162 kuruş
3 Months of assignment money for galleon men	1974 kuruş 27 Coin
Additional expense fee sent to the galleon	176 Kuruş 23 Coin
Appointment fee for the chief reel man	25 kuruş
Kalyoncubasi's appointment fee	25 kuruş
Umcacıbaşı's appointment fee	49 kuruş
Chief Blacksmith's wage	340 kuruş
Ali Kaptan's salary	505 kuruş
The fee for pitch	54 kuruş
Lumber transportation fee from Komotini and Karaağaç districts	510 kuruş
Money for food sent to the ship from Komotini	25 kuruş
Money for linseed oil	34 kuruş 8 Coin
Revgani Zeyt (olive oil) Money for Fırkateyn-i Hümayun	28 kuruş
Paddle and rope purchased for Fırkateyn-i Hümayun; necessary materials for journeymen	31 kuruş 3 Coin
Necessary items for the galleys and the fee of the newly hired *Çavuş*	45 kuruş Coin
Nazir Captaib Ali 's six-day wage	362 kuruş 16 Coin
Total	11.347 kuruş 303 Coin

There were times when shipbuilding was delayed; we see that the problems arising from the captain were somehow resolved. In the document dated May 26, 1800 (2 Muharrem 1215), there was a delay in the assignment of workers for the frigate, which was constructed in the Ereğli area of Lemnos, with a length of 50 (37.9 meters) *zira*, due to the delay in the appointment of the captain. When requesting a *bina emini* for the ship; oak timber was cut and transported from Koca Orman in Yenice, Komotini districts. With a cash collection of 15,120 kuruş; in addition 7500 kuruş and 250 scales of iron were sent (BOA, C..BH.., 226, 10503). There were also cases when people employed in shipbuilding were replaced and other people were assigned tasks. In such cases, disruptions occurred in shipbuilding. *Dergâhı Ali Kapıcısı Ayan* of Tekfurdağı Sabık Osman, asked for 270 pieces of timber to be cut in a document dated June 23, 1801 (11 Safer 1216) by *Ayans* of Karasu, Yenice and *Ayan* of Komotini *Kapıcıbaşı* Süleyman for a frigate with a length of 51 (38.65

Meters) that was being constructed in Lemnos. While 47 pieces of timber were cut from the Komotini District by Mehmet Ağa, the person's deputy; a fee of 48 kuruş was given for the transportation of timber. A transfer of 5000 kurus was made for the property of the Mytilene *Nezareti mukataa*. For the frigate to be constructed, it was requested to cut and transport various types of timber from Yenice, Komotini and the surrounding mountains (BOA, C..BH.., 20, 9493). A month later, the person who was appointed for the construction of the frigate in Lemnos Island by Bina Emini Hacı Halilzade Mehmet, a resident of Lemnos Island, was requested to be dismissed, as it was thought that he would not be able to accomplish this task; however, a *ferman* was sent to the *Kadı* of Lemnos to continue the construction of the frigate (BOA, AE. SSLM.III, 128, 7806). Information was given in the document dated January 5, 1802 (11 Ramadan 1216) about the dismissal of Osman Ağa, *Ayan* of Tekfurdagi, who was assigned in the construction of the frigate in Lemnos, and about the person who was newly appointed to his place. Due to the new appointment, it was requested that the shipbuilding be suspended until the *bina emini* was sent. It was reported that Hacı Halilzade Mehmet Ağa appointed as the *bina emini* for this job. It was reported that 5000 kurus was transferred from the property of the Lemnos *mukataa* in 1217, and that the construction of the ship should be started through Kapıcıbaşı, as Tatar Mahmut Bey came to the region. It was asked timber to be cut from Rumelia and transported to the port; and 5 to 10 carpenters, sawmills and blacksmiths appointed to work in shipbuilding. As the winter season intervened, there was difficulty in re-establishing the team; necessary tradesmen were gathered by Cami Mehmet Efendi and it was ensured that the *bina emini* was brought to the island. Although it was reported that 5000 kuruş was transferred from the property of the Lemnos *Mukataa* in 1217 to Voivode Ahmet Ağa, but the money did not reach that person, so Cami Mehmet Ağa conveyed the situation to the *Kadı* (BOA, C..BH.., 123, 5950; BOA,C..BH.., 61, 2900). In the document dated August 4, 1802 (7 Rebiülahir 1217), it was requested that the timber for the frigate be cut from the Thessaloniki Mountains as soon as possible and the timber shipped to the place where the ship would be constructed. It was reported to the Captain Pasha that if there had been a mishap in the transport process, the carriers would be punished by the castle officials. Regarding the situation, a judgment was sent to the *Kadi* of Thessaloniki and its Mutasarrıf, Vizier Musa Pasha (BOA, C..BH.., 182, 8556).

In the document dated March 11, 1803 (17 Zilkade 1217), 5000 kuruş, which was transferred to Voivoda Halil Ağa, was sent from the property of the Lemnos *Mukataa* in 1217 to be spent on the cost of the frigate that he took part in the construction as a deputy on the island of Lemnos. The Voivode gave 5000 kuruş, a fee of 5430 kuruş was sent from *mukataas*. Although 48 pieces of timber were cut; The construction stopped after the construction of the ship was suspended by *bina emini*. For this, the money that needs to be spent again was requested to be transferred from the *mukataa* goods (BOA, C..BH.., 214, 9990). Most of the parts of the ship that make up the stern were finished. It was considered to bring timber from Rumelia; since Vasil, *bina emini*; Destim Ağa did not come to the region; he suspended the construction of the ship. Hacı Halilzade Mehmet Ağa was appointed to the region instead of Destim Ağa. On May 30, 1804 (19 Safar 1219), money was sent again from the state-owned Lemnos *Mukataa* to build and launch the frigate. It was stated that the issue of granting money from the *Irad-ı Cedid* treasury would be discussed and the financial situation would be resolved in some way, as it would not be possible to supply *akçe* from the island for installments; it was stated that ships could not be unloaded from the slipway that summer.[31] The situation was notified to the chief treasurer for the timely launch of the ship and the supply of funds (BOA, C..BH.., 30,

[31] *İrad-ı Cedid* is known as the treasury established for the needs of the *Nizam-ı Cedid* army in 1793 by the order of Selim III. (Karal, 1988).

1410). Two months later, the people of the island were informed about the cutting of 600 pieces of felenk trees to be brought from Thassos to launch the frigate constructed by the Voivode; when the work could not be completed, the launching of the ship was postponed until next year.[32] It would not be appropriate to give wages to the workers because the ship could not be finished; A letter was sent stating that especially the trees should be transported by ships as soon as possible and the people of Thassos Island should attach importance to this work (BOA, C..BH.., 28, 1344). Two and a half months later, after the frigate, which was being constructed by Voivoda Halil, was launched and finished, it was requested that the needs of a captain and 20 workers sent to Istanbul to be supplied from there. For daily wage of a captain and 20 workers, bread and a *kyye* of rice to be given to Yusuf, the deputy of Kaptan Pasha Imperial Arsenal Emin, and also 40 pieces of bread and meat and a reshmru (?) were supplied to two people working with them (BOA, C..BH.., 217, 10131).[33] As we can see from here, the completion of the shipbuilding would take about a year if everything went well.

As you can see, the materials used complement each other with those working at the shipyard. We know that the materials required for shipbuilding were transported to the island by ships, and a separate person was on duty for these works.

5. Supply and Conservation in Shipbuilding

Limnos Island was also an island where the materials of the sinking galleons were unearthed. Materials removed from the sinking galleons were again used on other ships. We see that the diving job was given to the people of Symi Island. According to the document dated April 17, 1756 (17 Recep 1169), in 1739-40 (1152), in the place called Sandıklu on the opposite of Limni Island, four divers from Symi, reported that the navy galleon named Swallow, which sank by accident due to bad weather conditions, ten bronze cannons could be taken out, which were under fifteen or twenty fathoms of water near the coast. It was deemed appropriate to give a total of one hundred and eighty kuruş, out of thirty kuruş, to a total of six people, four of whom were divers from Symi, under the direction of a skipper and çavuş sent from the Imperial Arsenal for this job, in return for taking out the cannons (BOA, MAD, 10359, p. 172) .Providing food to the people who would work in shipbuilding and preserving the timber and iron found in the shipyard was a major problem. Usually the food given to working workers was sea biscuit. The food of the shipbuilding workers for the island of Limnos was provided from outside the island. In the document dated 23 May 1797 (26 Zilkade 1211), the crew of the Tongarta ships, a corvette built in Bodrum, Lemnos, and the crews of the corvettes constructed in Lesbos Island, which were arranged for the transport of timber from the Beşir Zafer and Gökabad Pier at the Kilitbahri Pass, which was assigned to the Mediterranean, were requested.[34] While providing 70 people to be recruited for his corvette built in Lemnos by son of Bulgarian Hacı, a person named Ali Mehmet Çavuş was assigned to transport 50 scales of sea biscuit to the region to be consumed by those who would work in the construction (BOA, C.BH., 22, 1032).

There were also cases where the grain needs of the ships built in other *sanjaks* were supplied from the island of Lemnos. In the document dated March 31, 1802 (27 Zilkade 1216), Menteşe Liva Mültezimi Hasan Çavuşzzade Elhac Ebubekir Ağa had difficulty in providing both the subsistence and wages of the existing carpenters, augers and various workers, due to the lack of planted land in Taşağazı of Bodrum Town.

[32] *Felenks* are notched trees on which tallow is rubbed for easy floating or landing of the boat.
[33] *Kıyye (Okka)* is a measure of weight used in the past. It is also called Kıyye-i atika. It is now 1282 grams.
[34] Tongartas are called flat-bottomed boats.

Liva Mültezimi Hasan Çavuşzzade Elhac Ebubekir Ağa tried to obtain food from foreign ships, even the grain that was in the hands of the poor people in Milas from the Menteşe Sanjak districts for the subsistence of the workers who cut and transport the timber and stayed on the mountain, and the carpenter, auger and various workers working in the galleon construction. Since the crop was bad in the Menteşe Sanjak this year; the external needs of the workers could not be met. *Mültezim* and *Ayans* stated that they would not give food from the grain left from last year. Many of the workers quit their job because there was no food; It was considered that the construction of the built ship was postponed. 3000 kilos of Istanbuli wheat were brought from Gallipoli, Kaleyi Sultaniye and Sultanhisar, Seddülbahir; sufficient grain was requested by Lemnos, and a person named Süleyman Bey was appointed for this task (BOA, C..BH.., 16, 761).

During the construction of ships protection of the materials, after the completion of the ship, protection of ship itself was of great importance. In the document dated 21 August 1798 (9 Rabi-ul-Awwal 1213), it was seen that the night guards neglected their duties for the protection of a frigate under construction in Lemnos; as it was in the construction of the galleon before, 25-30 people were appointed from the people and the protection of the ship was requested. Since it was reported that the newcomers neglected their duties at night, the order was written to the local judge and to the workers (BOA, C..BH.., 83, 3942).

It was very important to provide food to the officers in shipbuilding. While the food supply was being brought from different regions and tried to be ensured, the safety of the ship under construction was solved by switching to the sentry application.

Conclusion

The lifeblood of Lemnos Island was the shipyard located at the entrance of the port. In this shipyard, Istanbul's galleon and frigate needs were met. We can also confirm from the documents that many of the various personnel working in the shipbuilding business were non-Muslims. This situation was not only valid for this shipyard. Many of those who worked in rural benches such as Rhodes and Lesbos, such as architects, engineers, augers, Chief Mountain architects, were non-Muslims. We see that employees worked at the ship dockyards where they were located during the time period when the ship was built, and the road fare, expenses, and wages were provided by the captain of the ship when the employees arrived in the shipyard's neighbourhood. The construction time of a ship varied according to its size, but could take at least one or one and a half years to four years. Iron and nails, which are usually required for the ship, were obtained from Istanbul; the timber was obtained from Rumeli Sanjak as it is close to the region. The most common type of ship built in Lemnos was the galleon and the frigate, which was a medium-sized warship. While some of these ships were built as shares; we followed from the documents that most of them were built by the *mültezim* and voivode in charge of the island administration.

We know that many administrators on the island constructed ships for the Ottoman Navy. The most influential manager in the region that constructed ship was Voivoda Abdülkerim Ağa. Aga, who was personally responsible for the construction of nine ships in different periods; successfully completed his tasks. Pasha was exiled first to Rhodes Island with his brother Yusuf due to the cruelty he committed to the people during his tenure, and the two brothers were killed later and their cut heads were sent to Istanbul. We also know that the property of this family was confiscated by the state. According to the documents in the archive, there were guards in the shipyard where the ships were constructed to prevent their materials from being stolen; we learn that the subsistence of the employees were also regularly met. The economic structure in shipbuilding tried to be maintained by obtaining from different sources. As a result, we have been able to see

that the shipbuilding mechanism on the island, which became an important shipbuilding area due to its proximity to Istanbul with archival documents, realized on a small scale but at the maximum capacity that could be done with the support of the assistance received from Istanbul. Especially in our article, while the change in ship technology that started in the country dockyards is mentioned, all kinds of ships construction on the island is examined one by one. While examining this structure, not only the change in the XVIII century, but also the shipbuilding activities that took place in the long period until the second half of the XIX century are explained.

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