TC

SELÇUK UNIVERSITY

INSTITUTE OF SOCIAL SCIENCES

DEPARTMENT OF ARCHEOLOGY

DEPARTMENT OF UNDERWATER ARCHEOLOGY

KNIDOS PORTS

Aytekin BÜYÜKÖZER

PhD THESIS

ADVISOR

PROF. DR. AHMET ADÿL TIRPAN

KONYA-2012

SCIENTIFIC ETHICS PAGE

T.C.
SELÇUK ÜNİVERSİTESİ
Sosyal Bilimler Enstitüsü Müdürlüğü

BİLİMSEL ETİK SAYFASI

Öğrencinin

Adı Soyadı	Aytekin Büyüközer
Numarası	074103051001
Ana Bilim / Bilim Dalı	Arkeoloji/Sualtı Arkeolojisi
Programı	Tezli Yüksek Lisans ☐ Doktora ☑
Tezin Adı	Knidos Limanları

Bu tezin proje safhasından sonuçlanmasına kadarki bütün süreçlerde bilimsel etiğe ve akademik kurallara özenle riayet edildiğini, tez içindeki bütün bilgilerin etik davranış ve akademik kurallar çerçevesinde elde edilerek sunulduğunu, ayrıca tez yazım kurallarına uygun olarak hazırlanan bu çalışmada başkalarının eserlerinden yararlanılması durumunda bilimsel kurallara uygun olarak atıf yapıldığını bildiririm.

Öğrencinin imzası
(İmza)

Alaaddin Keykubat Kampüsü Selçuklu/ KONYA
Tel: 0 332 223 2446 Fax: 0 332 241 05 24
http://www.sosyalbil.selcuk.edu.tr/

PhD THESIS ACCEPTANCE FORM

T.C.
SELÇUK ÜNİVERSİTESİ
Sosyal Bilimler Enstitüsü Müdürlüğü

DOKTORA TEZİ KABUL FORMU

Öğrencinin

Adı Soyadı	Aytekin Büyüközer	
Numarası	074103051001	
Ana Bilim / Bilim Dalı	Arkeoloji/Sualtı Arkeolojisi	
Programı	Tezli Yüksek Lisans ☐	Doktora ☑
Tez Danışmanı	Prof. Dr. Ahmet A. Tırpan	
Tezin Adı	Knidos Limanları	

Yukarıda adı geçen öğrenci tarafından hazırlanan **Knidos Limanları** başlıklı bu çalışma **03/04/2012** tarihinde yapılan savunma sınavı sonucunda oybirliği ile başarılı bulunarak, jürimiz tarafından doktora tezi olarak kabul edilmiştir.

Ünvanı, Adı Soyadı	Danışman ve Üyeler	İmza
Prof. Dr.	Ahmet Adil TIRPAN	
Prof. Dr.	Asuman BALDIRAN	
Doç. Dr.	Bilal SÖĞÜT	
Yrd.Doç. Dr.	Ertekin DOKSANALTI	
Yrd.Doç. Dr.	Mehmet TEKOCAK	

Alaaddin Keykubat Kampüsü Selçuklu/ KONYA
Tel: 0 332 223 2446 Fax: 0 332 241 05 24
http://www.sosyalbil.selcuk.edu.tr/

PREFACE

In the 19th century in Knidos, which was an important city of art, culture and trade in the Ancient Period. Excavations and research have been carried out by different teams from the century until today. the city's rights Ports, which are one of the most important factors in its reputation, are It was not considered and examined as a subject in itself during the studies. This With our applications between 2008 and 2011 in order to fill the important gap Muÿla Province, Datça District, with the permissions of the Ministry of Culture and Tourism, General Directorate of Cultural Heritage and Museums and under the supervision of Marmaris Museum Directorate. It was studied in the Ancient City of Knidos, located within the borders of the city.

Especially those who supported me at every stage of this comprehensive study and My esteemed mentor and doctoral thesis advisor, Prof. Dr. I would like to thank Ahmet Adil Tÿrpan. Long-time member of the Thesis Monitoring Committee of the study. Dear friend, with whom we have been working together in excavations for a long time and from whom I learned a lot. my teacher Assoc. Dr. I would like to thank Bilal Söÿüt and his vast knowledge about Knidos. Assist., who was always helpful and guided me with his positive criticisms. Assoc. Dr. Ertekin I would like to thank Doksanaltÿ.

My valuable teacher, Prof., whose ideas I received throughout the study. Dr. ÿ. To Hakan Mert, My professors, Prof., who gave me their support and knowledge. Dr. Asuman Baldÿran and Asst. Associate Professor. To Mehmet Tekocak, my other professors and colleagues in the department Thank you.

Selçuk University Scientific Research Center, which financially supported the study Thanks to the Research Projects Coordination Office and our University Administration I do.

Cultural Heritage and other institutions that provide the necessary permissions for the work to be carried out I would like to thank the General Directorate of Museums, Marmaris Museum Director Ms. Esengül Yÿldÿz Öztekin, who provided a harmonious working environment during the field phase of the study, and ÿenay Öcal, one of the Marmaris Museum archaeologists.

To archaeologists Özge Böker and Mustafa Korkmaz, who supported the work within the scope of field studies and helped with field measurements,

Dr. accompanied me on the dives in the city. Erdoÿan Aslan and archaeologist Ahmet I would like to thank Bilir.

A part of the library work of the study is Istanbul German Archeology It was held at the Institute. Once to library staff and managers Thank you more.

Despite the extremely unfavorable conditions of Knidos, Prof. worked for years to reveal this beautiful city. Dr. Ramazan Özgan and Prof. Dr. My respects to the entire Knidos Excavation Team, including Christine Bruns-Özgan. I present.

To my family, whose support I have received at every stage of my life, who patiently supported me, and who was with me at every stage of this study, including the field phase. I would like to thank my colleague and wife Zeliha Gider Büyüközer.

Aytekin Büyüközer

KONYA/2012

SUMMARY

An important center of culture, art and trade during the Ancient Period

Knidos, in the state of Anatolia, is located at the southwestern end of Anatolia with the mainland and the
It was founded on the island (Cap Krio). By taking advantage of the suitable topographic structure
The merging of the mainland and the island gave the city two ports. from these ports
The one in the east was used as a Trade Port and the one in the west was used as a Military Port.

The Trade Port is the commercial center of the city, especially with its structures on the shores of Kap Krio.
It was the center of its activities. The dock areas on these shores and Kap Krio
The shops and workshops on the terraces clearly represent the commercial functions of the city.
shows. Military Port, Kap Krio and the harbor of the walls continuing from the mainland
It continues all the way to the entrance, its entrance is quite narrow and its surroundings are numerous.
"ÿÿµÿÿ ÿÿÿÿÿÿÿÿÿ" in Greek "Limen" due to reasons such as being supported by a tower.
It has the feature of a closed or closed port known as “Kleistos”. More
One of the early examples of closable ports seen in the Hellenistic Period
is in the situation.

Kent, B.C. In the 2nd half of the 4th century, new settlements were built over the Archaic and Classical settlement.
and with a system suitable for a more modern planning "grid plan" (Hippodamic)
has been rearranged. This planning is implemented within certain rules and systems.
An extraordinary application was carried out in Knidos and a port-centered settlement was established.
scheme has been applied.

Knidos, with its location in the southwest of Anatolia, is a part of Caria
Its region is entirely like a member of the island group surrounding it, rather than its cities.
It has a city structure dependent on the sea. This situation made the city dependent on ports.
Knidos Ports at least B.C. From the 2nd half of the 4th century to the 6th-7th AD.
They were used for centuries without losing their importance. After this period, old
The city, which lost its importance, existed until the 12th century AD according to episcopal lists.
Although it continued to maintain its former importance due to the loss of importance of the ports, it lost its former importance.
lost.

SUMMARY

A significant center of culture, arts and commerce through the Ancient Period, Knidos was located on the mainland at the southwest end of Anatolia and on the island facing the land (Cape Krio). Linking of the island to the mainland thanks to the suitable topography created two ports for the city. Eastern port was used as a Commercial Port while the one in the east was a Military Port.

Especially through the structures on the Cape Krio coast, the Commercial The port was the center of the commercial activities in the city. The piers and the shops and workshops over the Cape Krio terraces on these coasts clearly indicate the commercial functions of the city. As the city walls from Cape Krio and the mainland continue towards the entrance of the port, the entrance is quite narrow and it is Surrounded by towers, the Military Port is defined as a walled harbour, known as "ÿÿµÿÿ ÿÿÿÿÿÿÿÿ" "Limen Kleistos" in Greek. It is one of the earliest examples of the walled harbors common in the Hellenistic Period.

The city was re-planned over the Archaic and the Classical settlement in the second half of the 4th century BC according to a more modern planning system, namely "the grid (Hippodamian) plan". Applied through certain rules and systems, This plan was unusually carried out at a port-centered structure in Knidos.

Due to its location on the southwest of Anatolia, Knidos was a city wholly dependent on the sea like the islands surrounding it rather than the cities of Karia Region which it was a part of. This made the city dependent on the ports. Ports of Knidos had been used and not lost their significance at least from the second half of the 4th century BC to the 6th-7th centuries AD Even though it existed until the 12th century AD according to the bishop lists, the city lost the significance it previously had in parallel with its ports' losing their significance.

CONTENTS

1. INTRODUCTION

1.1. Subject

Changes in Archeology that started in the mid-20th century Geoarchaeology, It has led to the formation of some sub-branches such as Zooarchaeology and Archaeobotany. Underwater Archeology is one of the sub-branches of Archeology, the foundations of which were laid in that period. is in the situation. Changes over time are also different in Underwater Archaeology. It has brought along areas of expertise and different branches. As a result of these changes "Port Archeology" has become one of the sub-branches of Underwater Archaeology.

The geographical location of Anatolia, especially Western Anatolia, was It is a very important factor for the location selection of cities. Accordingly, settlements their relationships with each other, their commercial and other relationships with each other, and their geographical location. is directly related. The Aegean coast is very indented and there are numerous well-preserved places. Having a bay and a harbor brought with it maritime trade. Aegean The valleys and plains in the Region are separated from each other due to the mountains between them. is disconnected. This situation also affected the relations of cities with each other and thus maritime transportation has developed. For this reason, the cities in the west of Anatolia are coastal concentrated along the line. Flow rates of rivers in Western Anatolia It is not suitable for maritime transportation and it is not possible to establish relations with the inner regions in this way. This is another factor in the concentration of cities along the coastline. of cities not only in Western Anatolia but also along the coastline in the Southern coast The Anatolian coast was one of the most important places for sailors during the ancient period. The fact that it is one of the routes is also an important factor. ship in ancient times have to monitor the coasts due to poor construction technologies. For sailors, the Mediterranean coast was a passageway connecting the east to the west. Anatolia The rich industrial and commercial resources of the coasts also made the route a part of the Anatolian trade routes. This enabled it to pass through the coasts of Anatolia, and this led to many port cities on the Anatolian coast. led to its establishment.

The subject of our study includes all of the factors mentioned above. It is an important art, culture and trade center of the Caria Region. It constitutes the Commercial and Military Ports of the Ancient City of Knidos.

1.2. Aim

Knidos, located at the southwestern tip of Anatolia, was a political and military power. It was an important culture, art, religion and trade throughout the ancient period. It is centrally located. Due to these features, since the 19th century In the city, which attracts the attention of researchers, apart from single studies, there were British studies between 1858-59, American studies between 1967-1977, and American studies between 1987-2006. Extensive excavations and investigations were carried out by Turkish researchers in three different periods. research has been carried out. These excavations and researches are very important for the city. Although important, there is no study that only deals with ports.

Knidos is located on a rocky land structure at the far end of a long peninsula. It is built on the mainland and the small island right in front of it. Mainland, narrow and It is connected to the island by a low isthmus. The area formed by the island and the mainland Two natural harbors were formed in the east and west. This A narrow channel left on the connection connects the ports in the east and west. It binds. Due to these geographical features, it was described as a double city by Strabon. named.

The subject of our study is the sea formed as a result of the merging of the mainland and the island. and became safe shelters with the arrangements made around them. are port areas. The aim of the study is to examine both the surface and surface data of the ports in question. and submerged breakwaters, breakwaters, docks and piers, coastal port structures on the line, the influence of ports in the establishment of the city and the connection of ports with the city. By determining the city's relationship with the region and the Mediterranean, its place in maritime trade and to reveal its importance.

1.3. Scope

Caria Region, in the southwest of Anatolia, with Büyük Menderes in the north It includes a wide coastal line from the river to the Dalaman Stream in the south. is taking. The region has a well-developed coastline due to its jagged structure. It has numerous preserved bays and harbours. The number of ports in question is very high. required the scope of the study to be limited and therefore the thesis The project, which was considered as Caria Region Ports in the first phase of its work,

It is bordered by the Ports of Knidos, famous for the trade of the region. Today
The preservation status of the ports of Knidos, where there is no modern settlement
The fact that it is quite good has been an important factor in limiting the subject to Knidos Ports1 .

Within the scope of the study, the Commercial and Military Ports of Knidos and these ports connected breakwaters, breakwaters, docks and piers, harbor structures on the coastline has been evaluated. Although there are many buildings on the coastline other than the buildings in question. However, since they do not have direct connections with ports, these structures are not included in the scope of the study. not taken.

1.4. Method

The study of Port Archeology, which is a sub-discipline of Underwater Archaeology In addition to the known detection and documentation studies in our study within the scope of Underwater research methods were also used. In this context, with a large team in the field Measurement, detection, photography on land and underwater in the studies carried out has been made.

This article is about the Commercial and Military Ports of Knidos and the structures of these ports. The study is organized in six main sections and the research is directed accordingly.

-In the first part, the purpose, scope and method of the study are discussed and The framework of the subject has been drawn.

-In the second part, the emergence of ports, their development, ancient archaeological findings obtained as a result of transfers in sources, excavations and research data, research history of Mediterranean ports, typology and sections of ports General information about ancient ports is given by briefly touching on the subjects.

-In the third chapter, the connected ports of the two ports that constitute the main subject of the study The historical geography and research history of the Ancient City of Knidos, where it is located, are given.

- Anatolia, continental Greece, Aegean islands, Italy and many ancient ports of the Mediterranean are located. There are modern settlements in these areas today and a large part of these modern settlements The fact that some of the ancient ports are still used today determines their situation in ancient times. makes it impossible to do so.

-In the fourth section, related to the Trade and Military Ports of Knidos
Underwater and coastal structures have been identified and excavated areas have been identified.
Extensive definitions and comments have been made regarding areas whose excavations have not been completed.
suggestions were made.

-In the fifth chapter, the urban planning of Knidos and the importance of the ports in this planning.
location has been examined. The urban planning of the century to which the ports belong is briefly explained.
and within the framework of this planning, the city plan of Knidos was examined and the ports were
Its place and importance in planning was examined.

-In the sixth chapter, an evaluation of the entire study is made and a conclusion is reached.
aims to reach, abbreviations and sources used are included, drawings, maps
and pictures are added at the end of the work under the title of plates.

2. THE PORT IN ANCIENT PERIOD

2.1. The Emergence and Development of Ports

Literally port2, which carries cargo and passengers by sea.

where ships stop for a while, passengers are loaded and unloaded at the piers,

where incoming cargo is loaded, incoming cargo is unloaded, ships are replenished and

where representatives of different peoples and cultures come together, where their needs are met

It is the name given to the natural and unnatural bays, sheltered against the waves, where

institutions such as customs buildings and security points are located .

---

[2] **Raban 2009, 1: The term "port" is overused, especially when referring to an arrangement in ancient times.**

is general and often misleading. Ancient city thought to be used as the equivalent of the term port

Terms in languages are even more vague. In Old Semitic languages the term is sometimes synonymous with "seashore".

but in translations of the Old Testament the words "refuge" and "outer harbor" were used.

This term, which comes from the Semitic languages, is used as a prefix in every concept related to the sea and is used in the Bible.

Mahoz* = harbor and Akkadian *iaddu-iazzo* (strong) found in Ugaritic as *mihd

It is interpreted as a combination of words. In the Akkadian language, the terms ***karum* or *kaari* mean bazaar,**

It is thought to be derived from the word ***kur* , meaning trade place . A famous figure of the Neo-Assyrian period**

document, the imperial governor of the Phoenician city-state Arwad told his king that the prince of the region

While complaining about not allowing him to anchor in the royal docks, he *did not consider* the type of the harbour.

It is denoted by the term ***ru* . During the Early and Middle Kingdom periods, Egyptians used the same term for "shelter" and estuary.**

They used the word. During the New Kingdom, its literal meaning was "mooring father for ships".

The term ***mnit* was used, but later this word was used in the same sense as the Greek** word ***emporion* ,**

has become the word used in everyday language to talk about commercial ports. This ancient Egyptian language

The word became ***mineh*** in Arabic ***and limen* in ancient and modern Greek . In Talmud texts, the consonants of**

the Hebrew word were reversed as NML ***(namal)* ,** and this word has been the only word used to mean port in Hebrew

until today. **in Greek and Latin**

terms are not very clear and are used by different authors when referring to the same port as *'ormos,*

The words ***prosormos, 'uphormos* and *limen* are used interchangeably. literally**

***'ormos'* also means bay and *limen* is the same as the Latin** word ***portus* .**

for any of the above terms, even if it is known to be the only Greek word in the direction

To be able to perceive a precise port complex in terms of its size, quality, elements and physical characteristics

It is not possible.

[3] **Troxsell 1982, 3; Zimmermann 2003, 265; Özgan 2009, 103.**

The trade that people started in ancient times through the exchange of goods gradually increased. developing and diversifying, reaching from close distances to intercontinental distances. created a trade network. In the beginning, commercial goods and people were supplied by road. transportation from one place to another, land transportation is difficult, long and vulnerable to attacks. In addition to being an alternative to the difficulties caused by the transportation of heavy goods, it has turned to safer and more economical river and sea transportation. Maritime trade, which was known to exist before[4] especially B.C. It has been seen since the 8th century It showed rapid development on the Mediterranean coast as a result of the Phoenician and Greek colonization that started[5] . B.C. The development of the Mediterranean world in the 5th century was diverse. It was based on the trade of goods over seas[6] . Parallel to the development of trade Ports began to be built on trade routes. overseas building ships to withstand voyages and when overseas trade began Although it is not known exactly, the findings obtained from shipwrecks and various harbor excavations data on overseas trade routes from the Bronze Age to the Late Byzantine Age. shows that it is used.

One of these trade routes, the trade route in the Eastern Mediterranean, started from Egypt. Starting from the Levant, the southern coasts of Anatolia, Phaselis, Rhodos and Knidos, it extends to Crete and Greece, and then to Sicily and Rome[7] .

---

[4] The Uluburun and Gelidonya shipwrecks unearthed on the southern coasts of Anatolia document the Mediterranean trade in the Bronze Age. B.C. End of 14th century-13th. Uluburun, dated to the beginning of the century The shipwreck was built in Uluburun near Kaÿ, where they set out from the country of Canaan and bought copper from Cyprus. It sank offshore due to strong winds. The ship's cargo includes 10 tons of copper ingots of Cypriot origin, In addition to 1 ton of tin and 150 glass ingots, pottery of Mycenaean and Cypriot origin, Egyptian and Canaanite pottery seals, jewelery from the country, ivory from Africa, Hippopotamus teeth, Egyptian Pharaoh It consists of the seal of Akheneton's wife Nefertiti and small objects from many countries (Bass 1986, 85-86; Pulak 1988, 1-37; Pulak 2006, 57-104.) B.C. The Gelidonya Shipwreck, dating back to the 12th century, is a It is a Phoenician trading ship. The ship's cargo included copper, tin, lead ingots and terracotta pots. and small objects from various countries, as well as a variety of weight measurement units, the ship's Egyptian, He traded within the borders of Syria, Palestine, Cyprus, the Hittite Empire, Crete and Greece. (Bass 1991, 69-82).

[5] Collins 1984, 14-18; Halloway 1981, 21.

[6] Starr 2000, 21.

[7] Blackman 1982b, 187.

What makes it inevitable for the route in question to be on this route is the ancient period. maritime is a coastal maritime, not an open sea maritime as it is today8 . Since the ships of this period were not equipped to stay offshore for long periods of time, they proceeded parallel to the coastline9 .

Although using the long shoreline route takes a lot of time, offering seafarers the opportunity to enter ports or shelters at night, providing water, food and Allows meeting needs such as bartering commercial goods provides.

Among the primitive marine vessels of the early periods, the equipped and equipped vessels of the Roman Age In the process from big ships to big ships, changing needs, developing and diversifying Ship shelters and ports for maritime trade and ships were built. This Ports develop in parallel with both the needs of the period and the technology of the age10 .

From the moment ancient ports first appeared, both architectural and organized and developed port structures of the Roman Age, when it reached its technical peak. It went through many stages until it reached its destination. According to archaeological data, the first port areas date back to B.C. It begins in the 3rd millennium BC with simple hut structures on the riverside surrounded by branches and stones11. Also in the same millennium, the city of Ur12 and Lothal had geomet There is an artificial harbor built with excavated and kiln-dried bricks13. B.C. In the 2nd millennium BC, stretching along the Euphrates River in Mesopotamia, warehouses and primitive harbor structures, mostly used to store wheat In Egypt, where ships have been used since ancient times, III. Thutmosis

---

[8] Wachsmann 1998, 297.

[9] Lucian mentions an Alexandrian grain ship sailing from Egypt to Italy. your journey When Cyprus appeared on the seventh day, a strong west wind carried the ship towards Sidon. More Then the ship continued from the north of Cyprus and passed to the Lycian coast. Therefore, from Egypt A ship set out from the Levant coast to Cyprus and from there to the southwestern Anatolian coast. must have passed:

[10] Blackman 1982b, 185.

[11th] Shaw 1972, 88.

[12] Özdaÿ 1995, 199.

[13] Rao 1962, 14-30; Leshnik 1968, 911-922; Bass 1972, 6; Shaw 1972, 87.

Shipyards and docks from the years of domination (1504–1450 BC) can be seen14 .
B.C. Some examples dating back to the end of the 2nd millennium are found in Cades Port, Carthage, Spain.
Urtica Port near it and Motya Port in the west of Sicily15 .

Bronze Age, or at least B.C. Dated to a period before the 7th century, this
Underwater wall structures in the city of Dor, located within the borders of today's Palestine,
The Port of Kition in Cyprus, the port area created by trimming the main rock on the coast of the
city of Mallia on the island of Crete, and the breakwaters in the cities of Alexandria, Sidon and
Tire are examples of early ports of this period16. However, this one called "Cothon"
Most of the ports are artificial ports connected to the sea by a canal and actually located on
land17 .

The first example of a port built at sea, as it is known, dates back to B.C. It forms the
Tabbat-el-Hammam breakwater on the Syrian coast, dating back to the 9th century18 .
The next example is B.C. It is the Delos breakwater dating back to the late 8th century. The Port
of Samos, built with cut stone blocks as described by Herodotus (Herod. III, 60), dates back to
B.C. It was built by Polycrates in 530 BC.
is known. In this situation, Samos Port is the first port whose construction and date are known
with certainty20 .

B.C. After the 5th century, port construction increased depending on topographic conditions and
has developed. During this period, ports were divided according to their functions, including military and commercial.
started to separate. While commercial ports were generally located outside the walls,
Military ports appear to be more closed than the military navy, and their walls are much
strengthened21. B.C. In the 4th century, their economies and

---

[14] Shaw 1972, 88.

[15] Blackman 1982a, 84.

[16] Blackman 1982a, 82.

[17] Lehmann-Hartleben 1923, 145-146.

[18] Blackman 2008, 642.

[19] Blackman 1982a, 93.

[20] Blackman 1982a, 93.

[21] Raban 2009, 63.

Some port cities with increasing military power expanded their existing ports and became more powerful. They are equipped. Previous small docks, 1 km in length and They turned into large platforms with a width of 20 m and special anchorage areas were built. This includes the port in Alexandria, the large grain warehouses and the lighthouse. It was built in the period.

Trade changed greatly until the Period of Claudius, when Rome began to demand goods transported by sea22. variety of the Mediterranean Merchants coming from their places anchored off the mouth of the Tiber river and loaded their cargo They would unload it onto barges and lifeboats. This was a routine practiced in major ports throughout maritime history23. In particular, it is partially or completely exposed to winter storms. building a large-scale, year-round port in exposed areas These are the latest developments that often require resources far beyond the financial resources of cities. It was an extremely expensive activity. When major economic and political interests are at stake It is known that even after long negotiations, the Roman Senate allocated the necessary resources for such a project24. The good that Rome desperately needed A regulated port was first planned by Julius Caesar, but it took 80 years It was put into practice by Claudius some time later and in the early 2nd century AD. It was completed during the time of Trajan. Over time, it became completely political and even a Nero in Antium for personal reasons, such as glorifying the ruler's birthplace Quite large and advanced ports were established, such as those of Trajan in Centumcellae and Septimius Severus in Leptis Magna25 .

In ancient times, except for the Port of Constantinople built by Justinian Since the mid-3rd century AD, there has been no large-scale port initiated or financed by the central government26 .

---

[22] Raban 2009, 1-2.

[23] Frost 1995, 1.

[24] Raban 2009, 2.

[25] Rickman 1985, 111.

[26] Blackman 1982a, 79; Hohlfelder 1988, 54-62; Raban 2009, 1-2.

2.2. Ancient Sources and Archaeological Findings

There are many publications written by ancient authors about the ports of the Ancient Period. Although it is known that there are, only some of them have survived to the present day. Herodotus (Herod, 3.39, 3.44, 3.60), Pseudo Skylax (Skyl. Periplus 100), Strabo (Strab. Geo. , XIV.3.2; XVII.1.6-10), Pausanias (Pausan Perieg., Graeciae descriptio VII 21.13; SMM., 234-254), Pliny (Plin.,Nat. Hist. , HN16.202; Ep. 6.31), Vitruvius (Vitruv. Ancient writers such as De-arc., 5.12.) and Arrian (Arrian. Per. Pon. Eux. I-XXV), General information about the locations of ports, construction techniques and some port structures They gave. Two of the important sources that have not survived to the present day but whose existence is known are the Babylonian historian and geographer Philon's B.C. These are the books named ***"limenopoiika"*** **and** ***"Mehaike Syntexis" ,*** **which he wrote in the 3rd century27 . Apart from this, other literary texts that have survived to the present day are from B.C. It dates back to the 4th century and was writ** The text called ***"Sea of Erythrae" ,*** **in which he specifies the distances required to travel in the Mediterranean and the points from which water can be taken, belongs to the 1st century AD28. Stadiasmus Maris Magni29, Arrianus (Arrian. Per.), describing the distance and routes from Egypt to India . Pon. Eux. I-XXV)30 , the Cappadocia Province, which he ruled between 131-137 AD. During his trip to the Black Sea before taking office as governor, he It provides information about some of the ports on the coast and coastal travel.**

Ancient writers give more detailed information about some ports. While Strabon (Str. Geo. XIV.3.2; XVII.1.6-10.) describes the Port of Alexandria, Appianus mentions the Port of Carthage31. Herodotus (Herod., 3.39, 3.44, 3.60) It gives detailed information about the breakwaters of Samos Port. Pliny (Plin.,Nat. Hist. 16.202) In the texts he wrote about the Port of Ostia, the port was again mentioned as a port. Information about the description of the port rather than technical information about its architecture can be obtained.

---

[27] **Blackman 2008, 643; Oleson et al. 2004, 205.**

[28] **Blackman 1982a, 79.**

[29] **Tüner-Önen 2007, 52.**

[30] **Regarding Arrian's Black Sea Voyage and its interpretation, see. Arslan 2005, 51-169.**

[31] **Blackman 1982a, 79-80.**

The only source from which we obtain some technical information about port construction is B.C. one. The work "De Architectura" written by Vitruvius in the 12th century. In the section, topographic location of breakwaters and shipyards under the title of ports technical factors such as selection, construction method, mold models and the mixture of mortar to be used. information is included.

It is also located in the ports of Andriake, Ephesus and Kaunos and dates back to B.C. 2nd century AD According to some inscriptions dating back to the 3rd century BC, there were laws regulating customs duties32, and in the Ports of Thassos and Ephesus, port traffic was reduced daily. There is information about the studies and the processes of keeping the seabed clean33. Finally, literary texts about ports appear in the reports of 19th century travelers and researchers34.

Another group that allows us to have information about ports is archaeological findings. Partial information about the port and harbor structures can be obtained from some reliefs in Egypt and Rome35 and from wall paintings in Thebes, Egypt36 . Other important archaeological data about ports are coins37 , Aigeai, Aegina, Caisereia Germanikeia, Kenhcreai, Methone, Ostia, Patrai, Side and Port architecture on coins of port cities such as Soli-Pompeiopolis It provides superficial and symbolic information on the subject. The most detailed of these coins The information is a Nero Period bronze coin dated to 64 AD, which depicts Ostia's Port of Trajan, partly in plan and partly in perspective38 .

When we look at the terracotta artifacts, there is no depiction of a harbor on any finds other than oil lamps until today39 .
Apart from these, there is a glass window overlooking the Puteoli Harbor in the Gulf of Naples.

---

[32] Takmer 2006, 25-27; Takmer 2008, 165-168.

[33] Launey 1933, 394-395; Blackman 1989, 75-76.

[34] Blackman 1982a, 79.

[35] Bass 1972, 12-35.

[36] Bass 1972, 22-23, Fig. 22.

[37] Rollo 1934, 49; Shaw 1972, 106; Blackman 1982a, 80; Boyce 1958, 67.

[38] Meiggs 1960, 157; Blackman 2008, 639.

[39] Shaw 1972, Fig. 5; Favro 2006, Fig. 4.

many archaeological materials such as bottles40, reliefs41, mosaics42 and wall paintings43 We come across descriptions of ports on it. However, these explanations and Descriptions: In the port descriptions found on archaeological materials, with a few exceptions44, most of the time the port is roughly defined due to lack of space, and generally view and several important structures are highlighted.

---

[40] Shaw 1972, Fig. 14; Felici 1998, Fig. 17; Raban 2009, 65, Fig. 4.1.

[41] Meiggs 1960, Pl. XXVIb; Meiggs 1973, Pl. XX.

[42] Salies 1980, 344; Friedman – Zoroÿlu 2006, 109-110; Zoroÿlu 1996, 513; Dunbabin 2003, 267, Fig. 282; Erol 2008, 40, Fig. one.

[43] Shaw 1972, Fig. 18; Favro 2006, Fig. 7-8.

[44] Boyce 1958, 67; Favro 2006, Fig. 7-8; Zoroÿlu 2006, 513.

2.3. Research History of Mediterranean Ports[45]

About Port Archeology, which develops as a sub-branch within Underwater Archaeology researches, which we can describe as late compared to other branches of archeology. It started on a date. The first scientific studies on ancient port ruins were made in the 19th century. It is seen in the late 19th century and early 20th century. The studies on the Tiber River and the Port of Tiberius at the mouth of the river are the first port studies[46]. In 1903, British Geologist RT Günther carried out studies to investigate the changes in the water level in the ancient harbor area in the Naples Bay[47] .

In 1904, an engineer, Ph. Narcissus, grown in the coastal area in Greece He examined and published the ancient harbor ruins he encountered during his drainage and canal work[48]. In 1907, AS Georgiades, also an engineer, made research in the Zea Port of Piraeus and prepared its plan[49]. Between 1912 and 1916, G. Jondet published his studies by examining the ruins of Pharos Island and its surroundings in Alexandria[50] .

In the 1920s, especially in the field of Roman Period Ports, the best Research was carried out by M. Finley, N. Flemming and K. Lehmann-Hartleben. Especially K. Lehmann-Hartleben[51] 52 368 ancient ports and their surroundings, 184 of which are in the eastern Mediterranean basin , ancient resources and archaeological sites. A very comprehensive, reference book that describes using data He wrote this book and this book still maintains its importance today.

In 1925, S. Marinatos published a port in Agaioi Theodoroi near Knossos[53]. The first study on the underwater harbor ruins was

---

[45] This chapter is based on Blackman (1982a) and Raban, with some additions, changes, and updates. (2009)'s research.

[46] Lanciani 1897, Port section; Meiggs 1960, 149-171.

[47] Günther 1903, 449-560; Shaw 1972, 99.

[48] Narcissus 1904, 340-363; Shaw 1972, 99; Blackman 2008, 639.

[49] Georgiades 1907; Shaw 1972, 99; Blackman 1982a, 85; Blackman 2008, 639.

[50] Jondet 1912, 252-266.

[51] Lehmann-Hartleben 1923.

[52] Flemming 1972, 163-165.

[53] Flemming 1972, 37.

It was built by Poidebard between 1934 and 1936 in the Port of Tire, located in today's Lebanon54. In 1940, American archaeologist R. Braidwood discovered the Syrian reef just opposite the island of Machroud on Tabbat el-Hamman hill and next to He published a research on the coastline and as a result, it was revealed that there was an uninterrupted settlement here from the Bronze Age to the Byzantine Period55 . Between 1946 and 1950, Poidebard published his work in Sidon, using aerial photographs and underwater studies together for the first time56. The excavation of Lothal Harbor, which was discovered in 1954, started in 195557 .

After the 1950s, especially with the development of diving equipment, underwater Significant progress has been made by providing great convenience in research and research has accelerated further. Research after this date has been conducted regionally. If we have a look;

Carthage58 **and Leptis Magna59, the two most important ports of North Africa Extensive research has been carried out in ports. Apart from these, research has been carried out in** the ports of Cosa60 **and Lacedon61 and the coasts of Algeria62, Tunisia63 and Tripolitania64. has been made.**

On the Coasts of Israel, Palestine, Lebanon and Syria (Levant Coasts); Tire, Sidon and Anadus65 with Athlit66, Akko67, Dor68, Anthedon69, Motya70, Ugarit71, Sarepta

---

[54] Poidebard 1939, 52.

[55] Braidwood 1940, 183-226.

[56] Poidebard–Lauffay 1951, 73; Frost 1973, 75-76.

[57] However, these studies and findings were not very productive depending on the conditions of the time. It is thought (Frost 1973, 75-94).

[58] Stager 1976, 151-170.

[59] Bartoccini 1958, 32-34.

[60] McCann et al. 1987, 55-65.

[61] Euzennat 1976, 529-552; Euzennat 1980, 133-140.

[62] Davidson–Yorke 1969, 8-21.

[63] Yorke 1967, 18-24.

[64] Little 1977, 43-45.

[65] Frost 1972, 95-114; Frost 1973, 75-94.

[66] Linder 1967, 25-29; Raban 1985a, 30-38.

[67] Raban – Linder 1978, 238-243.

Excavations and research in **(Sarafand)72, Arward73, Tel Nami74, Caesarea Ports75 has been made.**

in Cyprus; The ports of **Amathus76, Nea Paphos77, Kition-Larnaka78 were explored and published.**

In Greece and the Islands; Piraeus79, Thasos80, Phalasarna81, Aegina82 , Larymna83, Corinth's eastern port Kencreai84 western port Lachaeum85, Seteia86 , Matala87, Kommos88, Charsonissos, Nirouchani and Malia Ports89, Aigeira90 , Perachora91, Avlidos92, Gythion93 , Samos94, Castellorizo95 ports were investigated.

---

[68] **Raban 1981, 15-26; Kingsley–Raveh 1994, 289-295.**

[69] **Schläger et al. 1968, 21-98.**

[70] **Isserlin 1971, 178-186; Isserlin 1974, 188-194.**

[71] **Yon 1998, 357-369.**

[72] **Pritchard 1971, 39-56.**

[73] **Frost 1966, 13-22; Frost 1995, 7-12.**

[74] **Artzy 1990, 73-76.**

[75] **Raban – Hohlfelder 1981, 56-60; Raban 1985b, 155-177; Oleson et al. 1984, 281-305; Vann 1991, 123-139; Hohlfelder–Vann 2007, 409-415; Raban 2009, 15-61, 69-152, 187-206.**

[76] **Aupert-Masson 1979, 725-733; Empereur – Verlinden 1987, 7-18.**

[77] **Nicolaou 1966, 561-602; Daszewski 1981, 327-336.**

[78] **Nicolaou 1976, 87-98.**

[79] **Garland 1987.**

[80] **Archontidou-Argyri 1987, 622-626; Archontidou-Argyri et al. 1989, 51–59; Empereur – Simossi 1990, 881-887.**

[81] **Hadjidaki 1988, 463-479; Frost – Hadjidaki 1990, 513-527; Pirazzoli et al. 1992, 371-392.**

[82] **Knoblauch 1969, 104-116; Knoblauch 1972, 50-85.**

[83] **Schäfer 1967, 527-545.**

[84] **Shaw 1978; Hohlfelder 1985, 81-86.**

[85] **Shaw 1969, 370-372; Stiros et al. 1996, 251-263.**

[86] **Davaras 1967.**

[87] **Blackman 1973c, 14-21.**

[88] **Shaw 1984, 251-287; Shaw 1986, 219-269.**

[89] **Hue – Pelon 1991, 117-128.**

[90] **Alzinger 1976, 157-162; Papageorgiou et al. 1993, 275-281.**

[91] **Blackman 1966, 192-194.**

[92] **Psarianos 1948, 155-160.**

In Italy and surrounding islands; In 1964, in present-day Italy

The findings obtained by excavating the Port of Claudius, located under the Fiumicino airport, were published by O.

Published by Testaguzza96. Pyrgi97, Populonia98, Luni99, Sipontum100 , Sicily101, Camarina102, Nora103, Archipelago104 and Tharros105 ports are also different has been researched and published over time.

Various studies have also been carried out on the Dalmatian coast in the Adriatic Sea and the results have been published106 . Port works in our country started in the 1960s and the first works were It was carried out mainly by foreign scientists. Within the scope of these studies, Kyme107, Side108, Phaselis109 ports were researched and published. In the process up to today, underwater archeology and port studies have been gaining momentum and continue to increase. Other works on the Anatolian coast Seleucia Pieria110 Soli Pompeipolis111, Kelenderis112, Fÿÿla113 near Alanya, Antalya province

---

[93] **Scoufopolos – McKernan 1975, 103-116.**

[94] **Simossi 1991, 281-298.**

[95] **Pirazzoli 1987, 57-66.**

[96] **Testaguzza 1964, 173-179.**

[97] **Oleson 1977, 297-308.**

[98] **McCann et al. 1987, 55-60.**

[99] **Ward-Perkins 1993.**

[100] **Smith–Morrison 1974, 275-281.**

[101] **Basile et al. 1988, 15-34.**

[102] **Blackman 1976, 607-615.**

[103] **McNamara–Wilkes 1967, 4-12.**

[104] **Bruno 1973, 365-369.**

[105] **Linder 1987, 47-55.**

[106] **Faber 1980, 289-317; Faber 1981, 293-314.**

[107] **Schäfer 1962, 40-57; Schäfer 1974, 207-214; Knoblauch 1974, 285-291.**

[108] **Schläger 1971, 150-161; Knoblauch 1977.**

[109] **Schläger 1972, 542-561; Blackman 1973a, 355-364; Blackman 1978, 829-839, Pl. 261-264; Schäfer et al. 1981, 49-57.**

[110] **Erol – Pirazzoli 1992, 317-327.**

[111] **Boyce 1958, 67-78; Brandon et al. 2010, 195.**

[112] **Zoroÿlu 1994, 31; Zoroÿlu 1996, 513.**

ports and anchorage areas on the coast114, Aperlai115, Kekova Ports in the Region (Dolichiste, Simena and Teimussa)116, Kaunos, Myndos117 , Research and research of Teos118, Limantepe119 and Alexandria Troas120 Ports **excavations. Work continues in two important port cities of the Lycian Region. In these studies, the excavations of the Lighthouse in Patara121 were completed and restoration work has started. In recent years in Andriake Port The excavations started continue systematically. As a result of these studies, some of the harbor structures were revealed122 .**

---

[113] **Tigrel 1975, 613-632.**

[114] **Öniz 2012, 66-122.**

[115] **Carter 1978, 177-185; Vann et al. 1997, 377-380; Hohlfelder–Vann 1998a, 26-37; Vann – Hohlfelder 1998b, 423-435; Vann–Hohlfelder 1999, 443-460; Leo 2011, 38-53.**

[116] **Leo 2011, 54-104.**

[117] **Sahin et al. 2008, 1-10.**

[118] **Blackman 1982b, 203-204.**

[119] **Artzy 2004, 17-21.**

[120] **Feuser 2009, 25-130; Feuser 2010, 1-18.**

[121] **Yÿldÿrÿm – Gates 2007, 275.**

[122] **Çevik et al. 2011, 406-414.**

2.4. Port Structures

Ports are basically the places where ships transport cargo and passengers by sea. stops for a while, passengers are loaded and unloaded at the piers, and transported where cargo is loaded, incoming cargo is unloaded, ships are supplied and supplied where representatives of different peoples and cultures come together, where It is the name given to natural and unnatural bays, sheltered against waves, with institutions such as customs buildings and security points123. With their first appearance, simple and primitive port areas have been subjected to new needs and developing technology throughout the historical process. shows a development accordingly.

When we look at the ports of the ancient period, there are trade ports and military ports. The structures found are different from each other. Easy entry of trade ships to Trade Ports They have a wide entrance for exit. However, both waves To be able to create a line of defense by breaking the violence and preventing sand formation. They contain breakwaters and breakwaters. In many ports, the port basin There are harbor walls to protect it. One of the indispensable elements of trade ports is piers and dock areas. Whether made of wood, cut stone or It should be created by cutting natural rock. There should be a dock in every trade port. There is an area. There are various port structures behind the dock areas. is taking. These building groups include shops, warehouses, stoas, workshops, workshops and taverns within or behind the commercial center124. There are also cisterns within the same building groups to meet the need for fresh water. Especially large and Temples to meet the needs of sailors in busy ports, behind the docks and social living spaces, areas where workers and technological cranes are located to load or unload commercial goods from ships125, working areas of public officials dealing with the taxation and security of commercial goods126 , A person who works to dock ships at a pier or dock within the port area.

---

[123] Troxsell 1982, 3; Zimmermann 2003, 265; Özgan 2009, 103.

[124] Blackman 1982b, 204.

[125] Blackman 2008, 653.

[126] Shaw 1972, 91.

There are areas where **rowing tugs127 and their crews are located.**
In addition to these, lighthouses or signal towers should also be in trade ports.
are among the expected structures.

The entrances to military ports are left as narrow as possible.
Since a part of the city walls usually includes military ports, the port
There are many towers at the entrances and surroundings. In military ports
Unlike commercial ports, there are no dock areas and piers are very few.
The reason for this is that a large part of the coastline of military ports is occupied by ships.
It must be filled with shelters. Merchant ships are at sea during the winter months
While there were warships on the shore, they were retreating to the ship shelters.

---

[127] **Casson 2002, 143; Blackman 2008, 653.**

2.5. Port Types

B.C. The ports that were used before the 2nd half of the 1st century were built entirely according to topographic conditions128. For this reason, when looking at the general structure of the ports, a specific plan type cannot be seen. During the Roman Imperial Age Developing construction techniques have transformed ports, such as theaters and stadiums, into topographic structures. It saved me from being tied down. On the other hand, it is impossible to talk about a specific plan type for the ports built during the Roman Period. Although the Caesarea Port129 located within the borders of Israel today and the Soli-Pompeipolis Port130 in the Cilicia Region were built using new construction techniques, the plan A specific type cannot be mentioned. The Port of Trajan, the inner port of Ostia in Rome, was also built using developing construction techniques and has a hexagonal plan131 . However, since the port is a singular example, it cannot be included in any typology. This For these reasons, ports have a certain typology, especially when evaluated in terms of plan. cannot be created. At this point, it is necessary to separate and classify ports into certain types. If necessary, this can only be done depending on the topographic characteristics of the place where they are located, their functions, It can be done according to the areas where they are located or their architectural features. ports Classifying them according to their topographic features, NC Flemming identified six typical areas for high rocky shores exposed to high-energy waves132. Completely

---

[128] Raban 2009, 63.

[129] Raban 1978, 238; Raban – Hohlfelder 1981, 56; Raban 1985a, 155; Oleson 1984, 281; hohlfelder – Vann 2007, 409; Raban 2009, 15-61, 69-152, 187-206.

[130] Brandon et al. 2010, 195.

[131] Testaguzza 1970.

[132] 1. Natural bays, with or without beaches in the windless parts, were used in ancient times. From its early stages it was the most common site for most ancient ports. 2. Almost closed bays, such as Kantharos in Alexandria and Piraeus, 3. On both sides of the anvil-shaped capes such as Sidon, Phaselis, Iasos, Side, Larimna and similar bays, 4. On the windward side of a mountainous cape, such as Akko, Berytus, Assos, Cosa and Populonia bays,

This classification based on topography has also been used by some researchers133

Another similar classification is low energy, sea level energy.
under and often below deltas, estuaries, lagoons and artificial coastlines.
These are port areas located in a context with swamps. Pelusium, Joppa
(Yaffo), Ugarit, Ephesus, Argos, Oinidai, Kamerina, Selinus (Selinuntae), Heraclea-
Minoa, Lechaeon Port of Corinth, Uthica, Carthage, Cosa, Graviscae, Massilia
(Marseille), Spain, and many Phoenicians in the Mediterranean along the Narbonesse coasts.
Roman ports were such ports134 .

Apart from these classifications made according to topographic features, some
Researchers **divide ports into two as "River Ports" and "Sea Ports"135 according to**
their location . Apart from this, **they are classified as “Commercial Ports”136, “Military**
Ports”137 and “Private Ports”138 according to their functions.

It can also be seen that it was done.

There is no coastal wall around the trade ports139 and their entrances are
It is left quite open. There are no defenses in the seaward sections.
There are no advanced watchtowers around such ports that do not have walls.
Many ports on the Phoenician coast can be given as examples of these ports. Ahlit,

---

5. Formed between sandy deposits on the coasts and whose lower parts are covered with water by the sea. sheltered valleys such as river valleys. Typical examples are Miletus, Priene-Myus, Herakleia and Magnesia. such as ports in the Menderes Valley.

6. Windward-free parts of islands or coral islands close to the shore. For example, Tyre, Arados (Arwad), Klazomenai, Korykos, Motya (Flemming 1980, 164).

[133] **Blue 1997, 31-32; Raban 2009, 63.**

[134] **Blackman 1982b, 186-193, Raban 2009, 63.**

[135] **Özdaÿ 1995, 199.**

[136] **Shaw 1972, 93; Blackman 2008, 655.**

[137] **Military ports are called closed or closed ports (Raban 2009, 63)**

[138] **Blackman 1982b, 188. Mausolus in Halicarnassus and Ptolemies in Alexandria**
There were ports. Apart from the administrators, the rich people of the period were also seen in front of their villas on the coast.
It had small ports.

[139] **In some sources, they are also referred to as open ports (Raban 2009, 63)**

Arward and Sidon140, Tire, Carthage, Tharros141 and Cadiz. Palairos142, Hermioni, Aegina Northern Port143, Anthedon144 in continental Greece are such ports. Some Etruscan ports also fall into this classification. These are Cosa and Pyrgi145. In Rome, the ports of Puteoli, Baia and Nisida in the Gulf of Naples also have access to the sea. They have no protective features for proper defense. Another similar port was Ampurias, the most important Roman port in Spain146 .

Military ports147 were first mentioned in ancient times by Strabo (Strab. XIV, 656)148 The "ÿÿµÿÿ ÿÿÿÿÿÿÿÿ" he mentioned were known as "Limen Kleistos". Entries These type of ports, which were quite narrow, could be closed with a chain if necessary. For this reason, they are also called "closed" or "closable" ports149. This Such ports emerged as a result of intense political and economic competition in the Mediterranean150. One of the best examples of closed or closed ports is the small port of Knidos151. Apart from Knidos, it is also closed in Mytilene, Phaselis central port152, Alexandria, Rhodos, Halicarnassus, Piraeus153, Aegina154, Thasos, Carthage and Korykos.

---

[140] Frost 1995, 7-15.

[141] Linder 1987, 47-55.

[142] Murray 1985, 67-80.

[143] Knoblauch 1969, 104-116.

[144] Schläger et al. 1968, 21-98.

[145] McCann et al. 1987, 60.

[146] Nieto-Raurich 1997, 146-158.

[147] Raban 2009, 63.

[148] Strabo ÿ ÿÿÿ
"Then we come to Knidos with its double harbour. One of these is into Triremes It is a port that has a navy center of twenty ships and can also be closed."

[149] Raban 2009, 63.

[150] Lehmann-Hertleben 1923, 65-74.

[151] This port, mentioned in many sources, is called "Little Port, Western or Northern Port, Trireme Port". It was called by different names, including Military Port. In this study, the name "Military Port" will be used.

[152] Blackman 1973a, 359-361.

[153] Piraeus has three ports. Of these, Zea and Mounichia have closed or closed ports. is entering.

The harbor is visible. In such port areas, if the topography is suitable, the port
The military port and the trade port are connected to each other by a canal, as in
examples such as Knidos, Halicarnassos, Carthage and Mytilene basins155. These ports use
to each other in terms of their purpose and defensive arrangements at the port entrances.
It looks similar. But since they are almost entirely dependent on topography
No plan typology can be created.

Apart from topographic features and purposes of use, only the port city relationship
There are also ports that have been classified taking into account.
As Thucydides (Thuc. I.7) states, for strategic reasons or security
For various reasons or depending on local landforms, "outer ports" have been developed.
These cities, not far from the coast, were home to thriving commercial activities and navy.
Depending on the needs, a port area on the coast is needed due to military activities.
they have heard. The most well-known of such port areas are the ports of Piraeus, the
port city of Athens. Apart from Piraeus, Corinth's western port is Lachaeum156,
Priene's Port Myus, Pergamon's Port Elaia, Mylasa's Port Passala157 and Rome's Port.
Ports with many examples, such as the Port of Ostia, are included in this evaluation.
They are entering.

Lechaeon was connected to Corinth by long walls, likewise in B.C. 5th century
At the end of the Peloponnesian Wars, Piraeus and its outer port in the same period.
Megara was connected to the main city by a wall. Other foreign countries in the Levant
ports Anthedon for Gaza and Antioch for the capital of the Seleucid kingdom
It is Seleucia. In many cases the outer ports were actually independent cities (Piraeus, Gortyn
and Ostia) or later became independent.

---

[154] Knoblauch 1969, 104-116; Knoblauch 1972, 50-85.

[155] Blackman 1982b, 193; Raban 2009, 63.

[156] Shaw 1969, 370-372; Stiros et al. 1996, 251-263.

[157] Today, Passala Port is located within the borders of Milas-Bodrum Airport.

3. KNIDOS HISTORICAL GEOGRAPHY AND RESEARCH HISTORY

3.1. Historical Geography

The ancient city, now called Datça or Reÿadiye Peninsula,

The peninsula, known as the Knidos Peninsula in the period, was located in the southwestern part of Anatolia. At its tip, it extends towards the Aegean Sea in the east-west direction (Pl. 1.1-2). Herodotus (Herod. I. 174, 2-3) starts the Knidos Peninsula from the Bybassos strait and The land of Knidos covers the entire land until Triopion cape at the western end where it ends. while emphasizing the Gulf of Keramos in the north, Syme and Rhodos in the south, determines its boundaries. Approximately 18 km west of Marmaris, Bordont bay in the north and Southwest with an isthmus approximately 2 km wide between Hisarönü in the south From Anatolia we pass to the Knidos Peninsula. From this isthmus, the most extreme lands of Knidos 63 km long, from Kap Krio (Deve Boynu Burnu) to the point continuing, long peninsula with Gökova Gulf and Bodrum Peninsula in the north, Kos is surrounded by the 'Sea of Islands' formed by islands such as Rhodos and Syme in the south. is surrounded. Herodotus accurately determined its width as 5 stades, 800 m in Bencik, in the location defined as 'Fish Ashran' today. Knidos lands are connected to the mainland by a wide narrow isthmus. This is the narrowest point of the peninsula and was founded by the Persian commander Harpagos in B.C. 545 They were cut off by the people of Knidos and turned their lands into islands against their campaigns in what they want is considered the isthmus (Herod. I. 174, 2-5). Knidos Peninsula, in the central part, in the northwest of Datça District, 2.5 km wide and 6 km long It is divided into two equal parts by another isthmus in its length. Eastern part of the peninsula covered with very steep, rocky, inaccessible mountain ranges about 742 m high It is a suitable land for any settlement today as it was in ancient times. not found. The western half of the peninsula has a higher mountain range. Together, it offers fertile lands to the east of Datça and south of Kumyer. In the south, the mountains descend more gently towards the sea. Datça in the southern plain It is located in the gulf. Datça, the current center of the peninsula, is located in the west of the plain area. Datça in the east of the western part, as it is today, in ancient times[158]

---

[158] **Located in the land around Datça, in Burgaz, Dalacak, Bean and Cook are the site of Old Knidos. They claim that: Bean – Cook 1952, 171-212, Pl. 36-41; Bean 2000, 137, 140.**

While there were settlements centered on the plain159, in the western part there were settlements passing through a narrow strait.

There are modern settlements such as Çeÿmeköy, Zeytincik, Betçe, Palamutbükü.

is taking. The ancient site in Kumyer, approximately 11 km west of Knidos.

Wall ruins, inscriptions and ceramic finds show that settlement took place in this region - apart

from Knidos - in ancient times. 160. Later, there was another

The entire western part of the peninsula, which is called Tekir today and is reached by passing through the Bosphorus.

The Knidos city region covering the tip is reached. Transition to Knidos city area

The remains of the bridge seen in the south of the modern highway in the Bosphorus that

provides transportation to the Bosphorus clearly show that the highway connection was made here in ancient times

At the very tip of the peninsula, Tekir-Iskandil Burnu with its peak, which has been described

many times in the ancient literature, rising in the Aegean Sea, to the north of the ancient city, and the city.

Kap Krio (Deveboynu Burnu) is located as a part of it.

Although it is an extension of Western Anatolia, it is connected to the mainland in the east.

Rhodos, Kos, with its mountainous terrain and difficult pass, topography,

Neighboring the islands of Nisyros, Telos and Syme, Knidos is accessible from a city on the mainland.

It gives more of an island character. The history of Knidos is related to the surrounding islands rather than Caria.

It offers a partnership with the world.

Herodotus (Herod. I, 174) Knidos was founded by Lacedaemonian immigrants

states that it is. Like Mytilene, Myndos and many cities in the ancient world, Knidos was

originally, a narrow band which the Greeks called 'Euripos' (Pausan. VIII. 30, 2).

It was built on an island close to the mainland, in the form of two ports connected by a strait.

Doric at Knidos, from the statements of Herodotus (1,174,2) and Thucydides (I, 4, 8)

It is clearly understood that there was a settlement here before the settlement. of Knidos

The first research conducted in the ancient city in the 19th century can provide answers to

information about its early history to some extent. Cap by **JT Bent162 in 1888**

In his research on the isthmus, Krio unearthed natural conditions.

---

[159] **Hÿzÿrÿah: Bean – Cook 1952, 177; Müller 1997, 312-313; Dalacak-Burgaz: Bean – Cook 1952, 173- 175.**

[160] **Bean–Cook 1952, 182- 183; Müller 1997, 314-315; Bean 2000, 145.**

[161] **Bruns-Özgan 2002, 4.**

[162] **Bent 1888, 82.**

The tombs and the Cycladic idols found in them date back to B.C. 3rd thousandth, here one It clearly shows that there was a settlement and Knidos's connection with the Aegean Cultures. However, no remains of either these findings or the graves can be seen today163 .

It is located in Pylosele, a port city in the Peloponnese and dates back to B.C. to the 13th century Knidos and its people are mentioned in dated tablets. These written documents indicate that there was a settlement in these periods as well and that it dates back to B.C. It shows the connection with the Greek mainland towards the end of the 2nd millennium BC164. Especially 'Military Port' Camerian style vases and Mycenaean ceramic pieces found during the excavations around the site confirm the written documents165 .

With the Aegean migrations or Dorian migrations, the Dorian Tribes were once part of the Achaean Empire. By following the same route they followed in the south, they reached the islands in the south of the Aegean Sea. B.C. This great movement, thought to have taken place in the 12th century immigrants in waves during the period (Diod. V, 53), Rhodos, Kos, Syme and the islands They passed to the Halicarnassus and Knidos Peninsulas opposite. The foundation of Knidos dates back to B.C., following the Doric settlements in Rhodos and Syme. of the 12th century It must have happened at the end.

In ancient literature, the founding of Knidos dates back to Doric origins and Spartan heroism. It connects to Triopas. Diodorus (V. 61, 2-3) escaped from Thessaly and went to the lands of Knidos Triopas was the person who came and founded the Triopion, which is mentioned here with his name. reports. Triopas, who continued his conquests here, had only one sacred area. Diodorus also states in the same passage that he did not build a city but founded a city. Although there are various hesitations regarding the location of the Triopion and its relationship with Knidos, It is clear from ancient sources that Triopion is another name for Knidos. shows;

In Stephanos of Byzantium, Triopion is emphasized as a city. Arrian (Ar. Moment. 2, 5, 7), Persian Orontobates took Halicarnassus, Caunos, Thera, Kos and He declares that he has recruited Triopion to his side. Knidos's immediate neighbor

---

[163] Bittel 1942, 173; Bruns-Özgan 2002, 7.

[164] Stelle 1965, 34-35, n. 83, 210; Cahn 1970, 13.

[165] Love 1978, 1111; Bruns-Özgan 2002, 7-8.

Being from Halicarnassus and naturally knowing this region well, he is also familiar with the region. Herodotus, who gives detailed information about it, does not mention such a city. by the name of Triopion Herodotus describes the sacred area of the union formed by the Dorians (Herod. 1, 144), all of Knidos. peninsula (Herod. 1, 174) or the western end of the peninsula (Herod. 4, 38). he meant. Thucydides Triopion and the cape at the western end, namely Knidos It defines.

Triopion and Knidos are seen together in Pliny (Plin. Nh 5, 104)166. Here Pliny Knidos "Knidos, Triopia, later Pegusa and Stadia states that it is named. Pausanias (Paus 10, 11, 1) founder of Knidos Description of Knidos and Triopion in Triopas' statements describing his activities It definitely defines a city for. According to all these explanations, the Triopon nomenclature Knidos is meant. Thus, as reported by Herodotus, Doric Colonization and The Doric origin of the city can be traced to its early founding.

Dorians, who were able to hold on to Kos, Rhodos islands and the coasts of Southwest Anatolia, in the form of 'Doric Hexapolis' (Unity of Six Doric Cities) to strengthen their position. known as Lindos, Kameiros, Ialysos and Kos in Rhodos, Knidos on the mainland and It was gathered around a union consisting of six cities, including Halicarnassus. Herodotus states that the meeting point and sacred area of this union was in Knidos. indicates. In Knidos, on the cape of Triopion, where the union of these maritime cities met, They organized games in honor of Apollo and there is a place dedicated to Apollo here. The temple is among the important information conveyed by ancient sources. This There is no information about when the union was established. With this Ceramic vessel fragments and artifacts from the geometric period found in the Knidos excavations Terracotta figurines show that the city existed in these periods and that settlement developed167. Moreover, according to what Herodotus reports, for a while after the Persian wars First, a person named Agasicles from Halicarnassus gave the prize he won in the races to Apollo. Halicarnassus was excluded from the union because he took it to his own homeland instead of dedicating it. Therefore the union is now called the 'Dorian Pentapolis'.

---

[166] **Newton 1863, 372; Bean–Cook 1952, 204; Müller 1997, 301.**

[167] **Love 1974, 82, Fig. 47; Bruns-Özgan 2002, 8-9, Fig. 6.**

During the Archaic period, the city was known for its strategic location at the tip of the peninsula. has become richer. The city also engaged in colonization activities and established a small-scale settlement in Sicily. At the same time, according to Herodotus, B.C. 7th century In the late 18th century, Egyptian king Amasis gave Naukratis to the Greeks who wanted to settle in Egypt. Knidos, like many Ionian cities, also had commercial units there after it was opened for commercial purposes. has created.

The city, which became rich due to both commercial activities and its location at the junction of sea routes, B.C. It started minting money in its own name in the 6th century[168] . The Bull figure, one of the oldest symbols of Knidos, can be seen on the first coins minted by the city. As an indicator of wealth, Knidos BC. in the 6th century Delphi, the first structure in Greece entirely made of marble, which was very costly. He built a treasury building. In the middle of the same century, the Persians became stronger under the leadership of Cyrus, B.C. After capturing Sardis, the capital of Lydia, and defeating Croesus in 546, the West They started to advance towards other parts of Anatolia. Persians commanders When he landed in Ionia under the leadership of Harpagus, the people of Knidos were about 5 stadia (800 m) away. They want to cut off their connection with the mainland by digging the wide isthmus. However, this attempt fails.

After the Persian wars B.C. A part of the Attic-Delos Maritime Union in the 5th century Knidos, which was a member, paid a tax varying between 2-5 Talents to the union. This He went to Delphi again to show the wealth and generosity of the city during the period. A magnificent Stoa structure whose walls were decorated by the famous painter of the century, Polygnotos. had it built. During the Peloponnesian Wars, which covered the last quarter of the century, Knidos was initially a member of the Attic-Delos Naval League, and later B.C. 412 In 1964, he found himself closer to himself in terms of Doric origin and economic interests. He was included in the union formed by Sparta. by Thucydides (Thuc. 8, 35), Sparta waiting around Knidos to capture Athenian merchant ships The capture of the ships by the Athenian fleet coming from Samos and their attack on Knidos are described[169] .

---

[168] Cahn 1970.

[169] These statements of Thucydides are frequently used in discussions about the location of Knidos and the Triopion. used: Berges – Tuna 1990, 30- 31; Müller 1997, 315; Bean 2000, 140-141.

Towards the end of the Peloponnesian Wars B.C. In the early 4th century BC, the Athenians, under the leadership of Canon, He formed the Spartan fleet together with the Persians in 394/93. They were defeated on the shores of Knidos. However, this event did not cause any change in the position of Knidos. During the time of the great Persian King Artaxerxes, B.C. With the 'King's Peace' in 387, Knidos came under Persian rule again. On the other hand, B.C. In the 4th century, a period that can be considered as the golden age for Knidos began. B.C.

In the 2nd half of the 4th century, new and more advanced settlements were built on the Archaic and Classical settlement of Knidos. With a modern planning, an arrangement was made that constitutes the majority of today's ruins170. A system in accordance with the Hippodamic plan was created on the residential areas of the old city. From Thucydides' statements B.C. Knidos, which was understood to have no city walls in the 5th century B.C. In the 2nd half of the 4th century, 2/3 of Kap Krio and the main A strong city wall supported by towers, covering the entire land area, was built171. In the excavations carried out under the foundations of the buildings in the Kap Krio section of the city, which rises on terraces, it was found in the terrace filling soil and dates back to B.C. 4. Ceramics and other small finds dating back to the 6th century allow the dating of this structure. It supports.

During this period, the city's sacred areas and structures were designed by the most famous artists of the period. It was decorated with his works. He was invited to Knidos with artists from all over. Among the new sculptures made are the famous Demeter, Aplollon of Bryaxis, Skopas' Athena and Dionysus can be counted. Undoubtedly, among these, Paxitetes Aphrodite is the most important. Not only in the field of art but also in political and scientific matters. It was also a bright period for the city. Knidos Democracy in Aristotle's Politics and Important information about the Senate is given. Besides, the Greek world Eudoksos, one of the most important astronomers, was from Knidos and studied the Canopus constellation. The famous observatory where he watches is located in Knidos. Eudoksos also prepared a law codex for his city172. Regarding medicine, the neighboring island of Kos There was a medical school rivaling that of Hippocrates. Persian and

---

[170] **Gerkan 1924, 90-93.**

[171] **Özgan 1992, 173, 177, Fig. 1-4, Plan 1-2; Bean 2000, 152.**

[172] **Newton 1865, 250.**

A native of Knidos who studied India and was the physician of the Great Persian King Artaxerxes. Ktesias was also a member of the Knidos Medical School.

After Alexander came to Anatolia and captured the southern and southwestern cities, Knidos was naturally included in the Alexander Empire. During the chaos after Alexander's death, Knidos was one of the centers that changed hands between Alexander's generals. However, B.C. 285
around, the southern and southwestern Anatolian coasts and the Ptolemaic Kingdom in Knidos passed to its hegemony. This hegemony, which is not very strict militarily,
It was lost in the chaos of the Hellenistic period. Commercial and cultural ties are becoming more important. This period is important for the history of Knidos. Especially
The grain ships and other boats coming from Egypt were heading towards the north.
Knidos, located at the intersection of the routes, was an important place for the Hellenistic kingdoms. It is located at a strategic point. The Ptolemies, who wanted to increase their sphere of influence, established close cultural relations with centers such as Athens and Knidos173. Even Ptolemy II and his wife, who financially supported religious festivals in Athens, tried to revive the Triopion festivals in Knidos174. close to Egypt
Relations were quite strong throughout the Hellenistic period, as evidenced by the sculptures and inscriptions found in Knidos175; Ceramic vessels and amphorae of Knidos origin found in Alexandria176 and B.C. found in Kap Krio. Ptolemaic coins177 dating back to the 3rd and 2nd centuries clearly show this intensity of commercial relations.

Knidos, which remained under Seleucid rule for a while, like other centers of Anatolia, was ruled by Antiochos III, B.C. Defeated by Rome and its allies in 190
regained its independence. However, after a while, with Roman support, Rhodian domination began in the entire Caria region. Carian cities BC. in 167 years
After their fight against Rhodos, Caria gained its independence, again with Roman support.

---

[173] Pritchett 1943, 13-23; Traill 1975, 29

[174] Bean 2000, 146.

[175] Bruns-Özgan 2002, 16-18.

[176] Breccia 1909, 298-320; Pagenstecher 1913, 59-64, 83, Pl. 20, 38; Élaigne 1998, 77-79; Élaigne 2002, 172, Fig. 10;

[177] Salles 1993, 53.

and Delos gained the feature of a free port. But all this period of turmoil
No major political changes occurred in Knidos during the period. Just the opposite
Knidos has a wide network of centers in the entire Mediterranean basin and as far as Afghanistan.
in Knidos workshops where geographical and commercial relations have increased.
fine ceramic vessels, oil lamps and Amphoras produced with great potential.
can be clearly observed. In Athens, in Delos, which gained the position of free port,
In Africa, Berenike, Carthage, on the Adriatic and Black Sea coasts, and in many centers in
Anatolia, thin ceramic vessels as well as amphoras in which the sweet Knidos wine, praised
in ancient times, was exported, were found. Especially these centuries have been a period
of development and enrichment for Knidos. Just like B.C. As in the 4th century BC. Temple
and Stoa of Dionysus, Apollo in the 3rd and 2nd centuries
Monumental structures such as the Temple and Altar and the Round Temple were built.
Located in the residential area of the city and unearthed during American excavations179
The fact **that the Hellenistic Villa was decorated with frescoes with fine artistic taste180 is also a symbol of the period.**
is proof of its vitality. Not only in homes, but also in commercial buildings unearthed in Kap Krio.
The existence of similar frescoes even in simpler rows of shops for social purposes
It is considered an indicator of well-being. At the same time, both mainland and
These rows of commercial shops in the island section and the stoa located at two different points
structures, the economic potential of Knidos, a commercial city with two ports
shows clearly.

Due to Rome's internal turmoil, struggles with the Pontus king Mithridates and
piracy movements, B.C. 1st century, insecurity throughout the Mediterranean Basin
It is seen as a period of dominance. In Knidos in the first half of the century, this
has had its share of chaos. Sanctuary in the northwestern part of the city
The ruin layers on the terraces, the fillings found in Kap Krio and dating back to this period,
date back to B.C. It shows that Knidos was subjected to destruction due to piracy activities
during the Mithridatic Wars in the 70s181. However

---

[178] **Bean 2000, 149; Bruns-Özgan 2002, 19.**

[179] **Love 1972, 397, Fig. 4.**

[180] **Bingöl 1997, 89-96, Lev. 17-21.**

[181] **Bailey 1975, 125; Bailey 1988, 326; Bruns-Özgan 2002, 22.**

During the 'Mithridat Wars', Knidos was destroyed along with surrounding islands such as Rhodos and Kos. His attitude towards Rome and his support of ships to the Roman navy Its presence was rewarded by the Romans and Sulla granting privileges to Knidos. Epigraphic and According to literature information, there is a particularly intense relationship between Knidos and Rome. is the subject. Reputable citizens of Knidos, such as CJ Theopompus and his family, were It is located in the immediate vicinity. According to the statements of Pliny (Plin. Nh 5, 104-109), B.C. In 45 BC, upon Caesar's request, Knidos gained the status of "civitas libera et immunis" (free city)182. Cesar's assassination and subsequent Roman civil wars The city, which lost this title for a while during the reign of Augustus, regained the same status during the Augustus period, thanks to its close relations with the imperial family183 .

Ancient literature provides very rich information for the Classical periods of the city. However, especially the Imperial period, the 2nd and subsequent centuries AD It is not possible to benefit much from ancient literature. But in the city With the help of the ruins, contexts and some inscriptions unearthed during excavations, this periods can be illuminated.

It maintained its 'free city' status during the Roman Empire and The city made good use of the privilege of being exempt from taxes, and with its maritime trade continued to develop. As inscriptions dated to the 1st and 2nd centuries AD show, the descendants of Theopompos184 **and Aristocleidas185 The aristocracy he formed is still active in Knidos. Many construction activities carried out The names of these families are seen. Located on the lower terraces of the city, the Hellenistic period The 'Stoa of Dionysus' origin was financed by Aristocleidas' son during this period. It was decorated magnificently with columned galleries and marble coverings186. The 'Corinth Temple'187, located on the middle terraces, has an interesting architecture and**

---

[182] Blümel 1999, 233-237; Bruns-Özgan 2002, 22.

[183] Blümel 1999, 233-237

[184] Bruns-Özgan 2002, 24.

[185] In the inscription found in the tomb of Lykaethion, daughter of Aristocleidas, it is stated that the public assembly and people of Knidos honoring Lykaethion for his services is described: Newton 1863, 516-517; Newton 1865, 249-250.

[186] Özgan 1998, 135, Fig. 7, 9.

It attracts attention with its magnificent marble architectural elements. Such construction activities Knidos did not lose its development and richness during the Empire period. shows clearly.

On the other hand, the residential areas of the city developed and became rich in the 1st and 2nd centuries AD. Villas continued to be seen. Hellenistic monuments on the mainland and Cape Krio The period housing area was also used in the Roman Period. However, the city's mainland Excavations and research carried out on the upper terraces in the section, especially on the 'Round Temple Terrace'188, show that with the acceptance of Christianity, the residential areas of the city were no longer It has been shown that it has spread to sacred areas that have lost their functions. Here 'Slope', which constitutes the residential area of the rich people in Ephesos. It is decorated with mosaics and rich frescoes, comparable to those in houses, The residential areas of the wealthy citizens, who constitute the city's notables, are only in the lower areas. It proves that it does not stay on the slopes and reaches the upper terraces.

Knidos wine, the main export item for the city, is available in many centers. As understood from the sealed amphorae, it was also important for Knidos during the Roman period. has become a source of income. Knidos, seen in almost all Mediterranean centers The production of the type of embossed vessels called Oinophoros was **a large part of the market until African workshops took over the market in the early 3rd century AD189. It shows that Knidos dominated the section. Pergamon190 and Korinth191,** which produced similar style vessels, **lagged behind Knidos. First half of the 3rd century AD With Knidos city coins bearing depictions of Knidos Aphrodite and Apollo, dated to B.C. Roman imperial coinage existing since the 6th century It continued during the period. All of these have existed since Archaic-Classical times.**

The trade volume of Knidos, which was a city that developed in the Hellenistic Period, was greater than that of the Roman Empire. It explains that it has reached the years without any interruption. located in Knidos

---

[187] Mert 2002, 9-22; Mert 2005, 229-248.

[188] Özgan 1995a, 163-165, Fig. 1-2; Özgan 1995b, Fig. 1-6, Plan 1-2; Özgan 1995c, Plan 2, Fig. 10-11th.

[189] Salomonson 1969, 7-11.

[190] Mandel 1988, 9-97.

[191] Hayes 1997, 73-74.

architectural remains and archaeological excavations not only in Knidos but also in many centers.
The ceramic, lamp and coin finds unearthed were found in Knidos, as previously thought.
It did not lose its commercial importance during the Roman period and developed its current wealth.
shows.

It is located in the terrace buildings in Kap Krio and right at the beginning of the Military Port.
A strong destruction and fire detected during the excavations of the 'Stoa of Dionysus'
It shows that Knidos was subjected to a disaster in both its island and mainland parts in the
mid-3rd century AD. Especially the Stoa of Dionysus
left unrepaired after destruction and only in the front part of this convenient place.
or only a small portion of simple-scale structures can be seen on the ruins left unremoved.
It is noteworthy that it was built after a long time. In both parts of Knidos,
The relevance of such destruction, which occurred in the same period, to the city in general has been revealed through excavations.
It is not clear because it has not been finalized yet. However, during this period
In the centuries, Knidos ceramic workshops, which worked with great potential, became popular in the foreign market.
It has lost its dominance and has fallen to a level that can only meet the needs of the domestic
market. B.C. Continuing with only short intervals since the 6th century
The minting of coins seems to have ended in this period. According to such data, Rome
Knidos went through a period of crisis in the middle of the imperial period.
It can be said.

However, as mentioned before, in the 4th century AD and the early Byzantine
During the period, the city again reached a certain level of prosperity. city center
There are 5 different basilica type buildings built on the areas and some old sanctuaries.
The church reflects not only the piety of the people of Knidos, but also the religion of the Christian period.
While showing its density, Knidos is included in the lists as the episcopal center.
is taking. However, Knidos began to lose its importance in the Classical periods.
has started. Why Knidos was described as a double city in ancient literature?
Excavations and research carried out in Kap Krio, which was located in the 5th and 6th centuries AD
This part of the city began to be evacuated and the settlement was separated from the mainland.
showed that it is limited. Indeed, in Kap Krio from the mid-6th century AD
There are no architectural, ceramic or other small finds that can be dated to a later date.
It is not. Knidos was briefly conquered by the Arabs along with Kos and Rhodos in the 7th century AD.
It was occupied for a long time. However, according to Episcopal lists, the city dates back to the 12th century AD.

It continued to exist until now. As understood from the ruins in Kumyer, this
Coastal cities, which had an unsafe environment in the past, retreated to the inner regions
It was also applied in Knidos and the city was gradually abandoned.

3.2. Research History

Knidos is especially famous for its city walls and the towers on them, its ports and other
It impressed western researchers with its ruins in the 18th century and caused the ruins to be
visited. One of the first people to come to Knidos was Lord Charlemont[192]. In the summer of 1811 the British
Admiral Beaufort also visited Knidos as part of his trip to the southwestern Anatolian coast on
a sailboat[193] (Pl. 2.1). The following year, 1812, the Society of
For Dilettanti (Dilettanti Society) WM Leake, W. Gell, F. Bedford, great
makes a research trip (Pl. 2.2). The results of this trip can be considered as the first
comprehensive research for Knidos[194]. Following this research trip, in 1835 the French Ch.
Texier[195] and WJ Hamilton[196] visit Knidos in 1837.
Important definitions about the topography of Knidos and the Datça peninsula
TAB Spratt visited the city in 1838 and published his works in 1886[197]. German L. Ross worked
in Knidos in the summer of 1841[198] .

With financial support from R. Murdoch Smith, Royal Engineer, C. Th. Newton,
The first comprehensive and planned excavations were carried out in Knidos in 1858-1859 on behalf of the British Museum.
carried out (Pl. 3.1). In this period when the city plan of Knidos was prepared,
Sanctuary of the Muses, Sanctuary of Demeter, Corinth Temple, Gymnasium
Archaeological excavations and research were carried out in the building named after the
building, the Small Theatre, the Necropolis area and Kap Krio, and these studies were published[199]. Newton's works
It is considered as the 1st period excavations for Knidos.

In the 19th and early 20th centuries, many western travelers and researchers visited Anatolia.
They stopped by Knidos during their visit to the coast. These visits
During his time, his studies and investigations were published on certain occasions. In 1881 O.

---

[192] Bruns-Özgan 2002, 29.

[193] Beaufort 2002, 80.

[194] Leake et al. 1840, 1-44, Lev. 1-33.

[195] Texier 1849, 171-175, Pl. 106, 164.

[196] Hamilton 1842, 39.

[197] Spratt 1886, 347-365.

[198] Ross 1843, 81-83.

[199] Newton 1863, 345-526; Newton 1865, 160-165.

Bendorf and G. Niemann200, 1888 in Th. J. Bent201, JL Myres in 1893 and G. Cousin202 in 1897 worked in the Knidos peninsula. In the summer of 1904, A. Philippson made a topographic and geographical description of the peninsula with a difficult research203 .

Later visitors were F. Krischen and A. von Gerkan in 1913.
It was built on the hippodamic plan of Knidos, BC. The city plan, together with the street and terrace system dating back to the 2nd half of the 4th century, was published in this study204 (Pl. 3.2). Although they planned a large-scale excavation, the outbreak of World War I
If given, this project will be cancelled.

After World War I, A. Mauvri (1921), TC Shear and K. Sudhoff (1926)205, more recently WC Brice (1949), F. Stark, W. Penfield (1954,56), from the German Archaeological Institute a group (1955), E. and C. Vermule (1961 and 1963)206
made definitions.

CM Cook and GE Bean are among the most important researchers who systematically examined the Knidos peninsula in 1949, 50 and **55207 . As a result of their work, They put forward the old-new Knidos problem, placed Triopion in Kumyer as a second city outside Knidos208, stated that Archaic and Classical Knidos was in Datça-Burgas and BC. They suggested that the city was moved to its current location in the 4th century209 .**

C.Th. Newton's first period excavations in 1858 and 1859
After his studies, in Knidos in a period of about a hundred years,
No archaeological excavations have been carried out. 2nd term excavations at Knidos in 1967 under the direction of IC Love on behalf of Long Island University

---

[200] **Bendorf – Niemann 1884, 16, Pl. 5.**

[201] **Bent 1888, 82.**

[202] **Cousin 1898, 361.**

[203] **Philippson 1915, 183.**

[204] **Krischen 1913, 476; Gerkan 1924, 92-98, 117, Lev. 10; Rostovtzeff 1953, 1266, Lev. CXII.1.**

[205] **Maiuri 1921, 397-427; Shear 1920, 197; Sudhoff 1927, 62-76.**

[206] **Penfield 1957, 393-399.**

[207] **Bean–Cook 1952, 171; Bean–Cook 1957, 85; Cook 1961, 56.**

[208] **Bean–Cook 1952, 209.**

[209] **Bean 2000, 149.**

was started210. In these works carried out with a large workforce, the city was primarily carried out by C. Th. Newton's city plan was checked and a new plan was prepared according to new refinements211 (Pl. 4.1). There are also excavations on the magnificent ruins of the city and research has been carried out. As a result, some of the streets, Hellenistic and houses from the Roman period, located on the upper terrace, formerly known as the Temple of Aphrodite. known as the 'Round Temple', the temple dedicated to gods such as Apollo and Dionysus areas, the 'Little Theatre' and Byzantine churches were unearthed. Also necropolis with some studies in the field and Kap Krio and previously C. Th. by Newton New research has been carried out in the excavated Demeter Sanctuary. Like this Many structures of the city have been unearthed. However, these studies are scientific could not be converted into publications. These 2nd period excavations in Knidos took about ten years. It was then discontinued in 1977.

Turkish excavations in Knidos, considered as the 3rd period, were carried out between 1987 and 2006 by Prof. from Selçuk University. Dr. It was made under the chairmanship of R. Özgan212 . During this excavation period, photometric methods were used to determine the plan of the city in the modern sense. Measurement studies have been started (Pl. 4.2). In addition to residential areas, ancient Knidos Necropolis, one of the largest necropolis areas of the period, was also found in the city. Studies have been carried out to include it within the scope of the plan. Also too much The unrecognized northern necropolis was also examined in this context. Turkish excavations In the initial phase, the famous and unearthed during American excavations The "Round Temple", considered the "Temple of Aphrodite", and its terrace studies have been started. As a result of these activities, it was determined that this temple was not the Temple of Aphrodite213. 'Round', which continued between 1987 and 1995

---

[210] Love 1968, 133-159; Love 1970, 149-155; Love 1972a, 61-79; Love 1972b, 393-405; Love 1973, 413-424; Love 1974, 68-129; Love 1978; 1111-1133.

[211] Love 1968, 133, Fig. 2.

[212] Özgan 1990, 167-175; Özgan 1991, 57-68; Özgan 1992, 171-188; Özgan 1995a, 161-168; Özgan 1995b, 169-188; Özgan 1996, 297-314; Özgan 1997, 273-296; Özgan 1998, 133-150; Özgan 1999, 205-214; Ozgan et al. 2000, 115-132; Ozgan et al. 2001, 95-112; Ozgan et al. 2002, 351-364; Özgan 2003, 359-372; Özgan 2004, 205-216; Özgan 2005, 235-248; Özgan 2007, 649-668; Özgan 2008, 107-126; Bruns-Ozgan 2002; Bruns-Özgan 2006, 167-177.

[213] Bruns-Özgan 2002, 75-76.

Residential areas constituting Roman and Byzantine houses in the 'Temple Terrace' studies has been revealed. In addition, he is in the orchestra of Propylon and 'Little Theatre' After short-term studies, he worked at Kap Krio between 1992 and 1996. and the 'Terrace and Stoa of Dionysus', which lasted from 1996 to 2006, and the Port Street projects have been started. With these projects, the city's important social and public In addition to revealing the structures of ancient city planning, streets and It is aimed to determine their relations with the structures.

All the natural destruction, the use of the city as a quarry and the

Despite the centuries, Knidos still enjoys its magnificence and beauty with its natural location and structures. It preserves its magnificence to some extent. It preserves its entrance and remains in good condition. The famous ports of Knidos, with their round and rectangular towers reaching continues. The city, placed on two opposite slopes, is a large city on a rocky terrain. on skillfully arranged terraces, in steps from the sea to the summit. is rising. The connection between the terraces is through streets with stairs. is provided. Stairs perpendicular to the main street in the east-west direction Hippodamic plan was created with the islands formed by the streets, and the buildings settled on these islands.

4. PORTS OF KNIDOS

Knidos, one of the coastal cities of the Caria Region, is located on the Datça Peninsula. It is located at its extreme point (Pl. 1.1-2). The city facing south and towards the sea It was built on a descending sloping land and the small island (Kap Krio) right in front of it214 (Pl. 5.1-2). Due to this feature originating from its topographic structure The city was called a double city by Strabo (Strab. XIV, 656). The mainland and Cape Krio, which caused Knidos to be defined as a double city. Due to the mud and sand brought by the centuries, it merged and took the appearance of a peninsula215. Although the mainland and the island are united today, as far as we know from Strabo's (Strab.

The island and the mainland are joined by a properly constructed breakwater and a narrow channel in between. has been left. In ancient times, the traffic between the mainland and Kap Krio was divided into two sections. It is thought that it was built with small boats or a movable bridge operating between them217 .

By joining the mainland and Kap Krio, east and west of the isthmus Two bays were formed. With the arrangements made at the mouths of the resulting bays, The bays were taken under protection and each of them became a port (Pl. 6.1-2; Pl. 7.1).

Among these, the area in the west is called "Small Port" due to its size, and the area in the west is called "West Port" due to its direction. Port”218, “Military Port” due to Strabo's transfers and existing ruins It is called. The port located in the east is called the Grand Port due to its size, the Eastern Port due to its direction, and the "Trade Port" in terms of function. named.

---

[214] Bruns-Özgan 2002, 4-5.

[215] This formation, which the Greeks called 'Euripos' (Pausan. VIII. 30, 2), is called geographically today. The term is called "tombolo". (Erel et al. 2005, 542).

[216] The island, which forms a cape at the western end of the Datça Peninsula, has humpbacks on its slopes and summit. Today, Kap Krio is called 'Deveboynu Burnu' due to its similar form.

[217] Love 1968, 134.

[218] It is also referred to as “North Port” in some publications.

[219] It is also referred to as “South Port” in some publications.

4.1. Trade Port (Eastern Port)

The isthmus between the mainland and Kap Krio, separating the two ports
It is located in the east (Pl. 8.1-2). The port covers an area of 130,950 m² as a basin.
It covers. Location of the Trade Port and its connection with the Military Port
Thanks to the canal that provided it, it could be used from the first construction phase until the
city was abandoned220. In the Trade Port, there are ancient and
Some of the indispensable elements for period ports can be seen.

In the eastern part where the entrance of the port is located, the eastern end of Kap Krio and
The distance between the mainland is approximately 440 meters. This width is natural and
Although it has the appearance of a sheltered bay, it covers the harbor basin to the south and east.
It could not prevent it from being unprotected against the winds. Because,
It was built in the area of the eastern end of Kap Krio and the axis of this point on the mainland.
Thanks to the breakwaters, the harbor basin is protected from the prevailing winds to a minimum.
effect was ensured and the entrance to the port was narrowed down and the port entrance was taken under control.
A defense line has been established.

used for loading and unloading cargo outside breakwaters and
In line with the purposes, the docks that appear in the trade ports are
can be seen in. As a dock in the part of the port facing the mainland
While no used area is visible, the western section overlooking Kap Krio overlooks the breakwater.
It was largely used as a dock, except for the rocky area nearby.

On the terraces located just above the dock in Kap Krio, you can see the view of the harbor.
Some port structures directly related to its function can be seen. Kap Krio limited
In this area unearthed during excavations, rows of shops, workshops, cisterns and these
Avenue and street systems connecting the buildings to the quay can be seen.

---

[220] Since the port is not located at the mouth of any river, it has not had any problems with being blocked by alluvium.
Thanks to the canal between it and the Military Port, water circulation was possible and thus the ancient
It has not been affected by sandblasting, which is one of the most important problems of modern ports. Nowadays
There is a partial sanding problem due to the channel being closed. Sandblasting in ancient ports
For the problem, see Blackman 1982b, 199-202; Blackman 2008, 662-663.

Another area that we can associate with the port is in the north, overlooking the isthmus. With the arrangement in the section, the underwater area in front of the Harbor Theater are ruins. The platforms in both areas were used as scaffolding.

4.1.1. breakwaters

The Trade Port is a sheltered bay due to the island that lies in front of the mainland. Although it looks like a southern and eastern region with harsh winds, especially in winter months. It is in a position unprotected from winds. In parts of the sea that do not receive wind, breaking wave energy to keep calm and protect against enemy attacks In order to provide this purpose, two breakwaters are built opposite the eastern end of the island, which is the starting point of the natural harbor basin, and the parts of this point on the mainland. was built (Pl. 9.1-2). From these breakwaters, the southern part connected to Kap Krio While the breakwater is still visible on the water, the breakwater located to the north It remains underwater today.

4.1.1.1. Southern Breakwater

"South Breakwater" of the Trade Port, from the eastern end of Kap Krio It extends as a branch towards the north (Pl. 10.1-2). Breakwater today The length of the part above sea level is 120 meters. on the sea floor It has a length of approximately 160 meters. The breakwater , **which varies from land to 26-27 m222 depth at its tip, is in this form. It is described as one of the most impressive structures of port engineering in ancient times223 .**

---

[221] **The breakwaters in the Trade Port of Knidos are incorrectly defined as breakwaters in some sources. It was evaluated as . Although breakwaters and breakwaters have basically the same function, some They differ from each other by their features. Breakwaters are made of blocks of various sizes, generally in random order. It is formed by piling up on top of each other and the purpose is to create wave waves so that the sea is calm in the parts that are not exposed to the wind. is to break its energy and create a line of defense. The breakwaters are constructed with blocks of various sizes. It is seen that there are port-related structures on and around the knitted arrangement.**

[222] **Although it is stated in many sources that it goes down to a depth of 30 m, it is located between two breakwaters. In our dives, it was determined that the deepest point varied between 26-27 m.**

[223] **Blackman 1982b, 196-197.**

In the construction of the breakwater connected to the island, the waves on the sea floor In parts not exposed to violence, generally small sized blocks In order to resist the wave intensity as the surface gets closer to the surface when used Randomly cut rather large blocks were used (Pl. 11.1-2). This Large-sized blocks, which can also be seen above the level, were cut from the large rocky area on the east coast of the island and this place was used as a quarry224 (Pl. 12.1). The large-sized rocks cut from here are stacked on top of each other from the sea floor. The breakwater was built by piling up. This pile is located at a certain level from the sea floor. It was carried out within the system and both side faces of the breakwater were covered with sea It is made sloping in a form that narrows from its base to the surface (Pl. 12.2). Especially the purpose of making the outer surface inclined is to protect the breakwater from the wave intensity. to prevent damage. With this construction technique, the hardness and permeability of the outer surface Combining together, they help break the intensity of the waves. Exterior and interior surfaces The width of the sloping breakwater is approximately 50 meters where it sits on the seabed. m, it narrows towards the upper levels and drops to approximately 20 meters.

The part of the breakwater visible above the water has an increasing trend from north to south. It has height. The height, which is 2-3 m in the north, increases as it continues towards the south. It rises and reaches 7-8 m at the starting point. But this There is no certainty whether the heights are the original heights of the breakwater or not. It's hard to say anything. Because the northern breakwater remains underwater today. The causative factors may also apply to the south breakwater. That's why Although the breakwater is visible on the water surface, its original height is higher. It may be different.

4.1.1.2. Northern Breakwater

The "North Breakwater" of the Trade Port is the southern breakwater on the mainland. It extends from its axis to the south in the form of an arm. Nowadays from north to south It was submerged at depths varying between 1 and 5 m (Pl. 13.1). In its current state, its length is approximately 180 m at the sea floor, while at the top

---

[224] **Gerkan 1924, 113-114.**

Its length at level is approximately 125 meters. North like the south breakwater
The breakwater continues to a depth of 26-27 m at its tip.

Both breakwaters show the same features in terms of construction technique.
However, the dimensions of the blocks used at the upper level in the northern breakwater are
It is smaller than the breakwater. The northern breakwater is larger than the southern breakwater
It is wide and has a width of approximately 60 m on the sea floor. exterior of the breakwater
inclined to prevent his face from being damaged by the force of the waves.
was made (Pl. 13.2; Pl. 14.1-2; Pl. 15.1).

The northern breakwater is today between 1 and 5 m from north to south.
is underwater at varying depths. In this form, the part of the breakwater above the water
Its original height cannot be determined. Regarding the submersion of the breakwater
Several factors may have played a role. In the relations between land and sea that have been going on for centuries,
any changes that might have been possible would result in an unstable seabed.
If it is built, its sinking rates or later wave movements of its upper parts
or has been removed by humans to be used elsewhere
These are the possibilities that may cause the breakwater to remain underwater.

The first possibility of the breakwater being submerged is that it has been exposed to water for centuries.
Blocks of waves at the upper level of the breakwater after strong winds and storms
It is possible that he dragged it. If this possibility is true, the upper level of the breakwater
The blocks were dragged towards the harbor basin in direct proportion to the wave direction.
must be. However, in our dives, the inner face of the breakwater was along the shoreline.
It was completely scanned and no dense block clusters of large sizes were found.
In addition, when building breakwaters, this possibility is taken into consideration and the highest
Very large blocks were used in the level. Therefore, this possibility
It appears to be weak regarding submersion.

Another factor is that the roughly cut blocks on the breakwater were a quarry.
It may have been used as. A kind of quarry of Knidos in the 19th century
It is known that it was used as a building and even blocks taken from the great theater
were taken to Egypt225. However, before these blocks were transported to Egypt, British
Admiral Beaufort, who visited the region in 1811-1812, discovered that the breakwater was underwater.

---

[225] **Bruns-Özgan 2002, 28.**

He mentioned that it was226. In the drawings of the Society of Dilettanti, which worked in Knidos in the same years, the breakwater is also underwater227. Again in the mid-19th century In the drawings of Newton, who carried out the first comprehensive excavations in Knidos, it is seen that the breakwater is under water228. Moreover, in the ancient city While there are countless more functional blocks of much smaller sizes and neatly cut It is also very logical to move roughly cut large blocks on the breakwater It is not visible. Therefore, this possibility for Knidos is based on the existing ruins, the travellers' According to the notes and excavators' reports, it seems impossible.

Another possibility is that the breakwater was submerged by tectonic movements. is that it could happen. Considering geological and archaeological evidence, it is known that the city was affected by at least two major earthquakes229. These earthquakes and other Other earthquakes affecting the region are related to the submersion of the breakwater. It seems difficult. Because, together with the southern breakwater, the harbor walls and other structures The ruins and the breakwater of the Military Port remain close to their original levels until today. has been preserved in this way. Earthquakes in the region only affect the eastern breakwater. It is very logical that it can sink underwater to a depth of 1-5 m. It is not visible. Changes in water level as a result of tectonic movements It is one of the best known examples of the coastline remaining underwater. It is seen in the Kekova Region. Singular in ancient cities in the Kekova Region Most of the structures located on the coastline, not the buildings, are due to tectonic movements. As a result of the rise and fall of the water, it is underwater today230 .

Another possibility for the breakwater to remain underwater is that the breakwater It was built without a solid and natural foundation and, accordingly, its own It sank to the bottom with its weight. In order to create a more solid infrastructure

---

[226] Beaufort 2002, 80.

[227] Bruns-Özgan 2002, Fig. 32.

[228] Newton 1863, Pl. LXVII.

[229] One of these occurred in the Late Hellenistic Period and its structures on the upper terraces are large. influenced to a large extent. The other one occurred in the 5th century AD (Altunel et al. 2003, 137-151).

[230] Leo 2011, 36-39.

Breakwaters are suitable for topographic structures such as Alexandria231, Sidon232 and Joppa. They were built on the line where natural reefs are located in the harbor basins. In areas where topographic conditions are not suitable, if underwater conditions are suitable, rocky It is built on the sea floor and its foundations are wide and its side faces are damaged by the foundation. inclined to prevent it from seeing and sinking and to break the wave intensity better. they were done. In places that do not have any of these topographic features, as in examples such as Phaselis, Cosa, Eretria, Samos, Paphos, Delos and Kenchreae. They were built artificially directly on the sandy area. But often These piles had to be built at considerable depths below the seabed. this too Sandyness means increased pressure on the seabed. Increasingly These breakwaters, which are built deep and over a wide area, contain sand or mud beneath them. It may have collapsed to the bottom under its own weight due to the effect of erosion. this possibility This is an accepted possibility for many harbor breakwaters as a result of recent research. Examples of such submerged breakwaters can be found in the western breakwater in Iasos233 , the South Harbor breakwater in Phaselis234, the breakwater in Cosa235, and the northern breakwater in Kenchreae236 . east of Knidos There is no rocky infrastructure on the ground where the breakwater sits and It sits entirely on sandy ground (Pl. 15.2). 27 m from the surface

---

[231] **Savile 1941, 210-215; Taylor 1965, 160-162; Shaw 1972, 94.**

[232] **Poidebard–Lauffay 1951, 73; Frost 1973, 75-76.**

[233] **Baldoni, for the two submerged breakwaters in the Western Harbor, the city's view to the open sea. These are not breakwaters due to their transverse and reverse position and the direction of the wind. He stated that they were built only to control the entrance and exit of the port (Baldoni et al. 2004, 60). However For ancient breakwaters, considering their location at the entrance of the harbor and their construction technique, All the features that can be said are also valid here. In addition, breakwaters only measure wave intensity. not only to reduce sand but also to prevent sanding and create a line of defense. is regulation. Therefore, in our opinion, this arrangement on both sides of the Western Port is a It is a breakwater.**

[234] **Blackman 1973a, 358-359.**

[235] **McCann et al. 1987, 55.**

[236] **Shaw 1978, 36-38; Hohlfelder 1985, 81-86.**

The reason why the breakwater, which goes down to a depth of 60 meters and has a width of 60 m on the sea floor, remains underwater may be that it sinks to the ground under its own weight237 .

4.1.1.3. Historical Development of Breakwaters and Location of Knidos Breakwaters

Breakwaters create waves to keep the sea calm in parts that are not exposed to wind. They are designed to break energy. With these features, breakwaters Even if they remain below the level of protection, they can still perform their functions and It is one of the most important ports of ancient ports by providing sufficient circulation in the port area. They can reduce sanding, which is one of the problems. Another purpose of breakwaters to protect port areas against enemy attack by creating a defense line. is to ensure its protection.

With their first appearance, they were used only to reduce the wave intensity. The breakwaters built, over time, destroyed the anchorage areas within the port. They have also been used to expand. Depending on this use, construction technique and plan They have also improved in terms of With this development, the inner side of the harbor breakwaters It was built to serve as a pier. In this way, merchant ships, coastal While they were waiting to unload their cargo at the piers on the strip, they were waiting inside the breakwaters. were able to safely anchor or carry their loads in the anchorage areas It could transfer the cargo to the loading and unloading ship without ever approaching the pier. This development It continued in the Hellenistic and Roman Periods and was used on breakwaters, sea Structures such as lighthouses and signal towers have also begun to

be built. The first breakwater structure can be seen at Tabbat el-Hamman, just across the Syrian reef island of Machroud238. The breakwater here is approximately 2 x 2 It was built from properly cut blocks measuring m. Breakwater, 200 It has a length of over meters and a width of 15 m, and its tip is 4 m above the water. It goes to the bottom. B.C. Dated to the 9th century, this breakwater was the first independent It is known as breakwater.

---

[237] **In order to determine the reason why the breakwater remains underwater, it is necessary to determine whether the breakwater sits on the seabed. A drilling in the area could provide us with clear data regarding this possibility. However Such a study was not carried out because physical intervention was not allowed within the scope of the research permit. It could not be done.**

[238] **Braidwood 1940, 183-226.**

In later periods, the Aegean and Mediterranean coasts became deeper and deeper. Piling irregular rubble or stone blocks into the sea in sheltered bays They discovered that they could make breakwaters with clusters. The first known breakwater of this type dates back to B.C. It is dated to the end of the 8th century and is located on Delos, an Aegean Island239. B.C. During the 7th and 5th centuries, Southern Italy, eastern Sicily, This style is prevalent in a wide geography covering Southern France and the Black Sea coast. breakwaters are seen. In addition to the breakwater at Delos, Salamis in Cyprus, Iasos in Anatolia, Apollonia and Thapsus in North Africa, Syracuse in Sicily, "Sunken masonry breakwaters" in good condition have been identified in Piraeus, Greece.

The first breakwater built from properly cut blocks dates back to B.C. at 530 It is thought to have been built by Polycrates on Samos. Herodotus (Herod. III, 60) mentioned that three of the important works of antiquity were in Samos and He evaluated the breakwater as one of these three works. According to Herodotus, the port The breakwater has a length of more than 2 stadia and its foundation is 20 fathoms below water. It goes down to . However, after this date, simple, rubble-built buildings without a superstructure were built. The construction of breakwaters also continued. Therefore, different techniques breakwaters or breakwaters built in different time periods. It would not be an accurate assessment to evaluate.

In the Roman Period, port engineers (Vitruvius II. VI) as a hardening material for local, volcanic soil. They learned how to use water and build concrete structures that could stand on their own in water without any support241. Vitruvius (V. XII. 3) building concrete foundations under water Describes various methods of

Another incident related to port engineering occurred in the 2nd century AD. The development is that, some distance from the shore, long breakwaters and breakwaters are now more distinct. It is also built for different purposes. Offshore and without any connection to land

---

[239] Blackman 2008, 642.

[240] In 2008, the General Directorate of Cultural Heritage and Museums and the excavations of Iasos on that date During the dives in Iasos with the written permission of the President Fede Berti, the breakwater was made of stacked stones. It was observed that it was built and narrowed with a certain slope upwards from the sea floor.

[241] Blackman 1982b, 197; Oleson 1988, 151.

Thanks to these breakwaters or breakwaters, coastal currents can flow without clogging. It continued and prevented silting. The most important known examples of such ports are Sabratha and Patras are the ports.

Some Roman ports, such as Kenchrae and Leptis Magna, had piers, warehouses, fish tanks, temples, statues, beacons and a lighthouse They had breakwaters wide enough to carry them.

As mentioned above, breakwaters date back to B.C. In the 9th century, blocks were placed on top of each other. From a simple line formed by the accumulation of highly functional buildings where temples, lighthouses and even city walls rise They have become one. Some features seen in this development process are breakwaters or It provides important clues for dating breakwater structures. With this The construction of simple masonry breakwaters, which together constitute the earliest examples of breakwaters, continued during these developments. Especially where the seabed is deep When it is necessary to build a breakwater in areas, it can be built with smooth blocks. Instead of breakwaters or breakwaters, masonry breakwaters were preferred.

Both breakwaters in Knidos are masonry breakwaters and are only constructed. It is not possible to make a dating based on the technique. natural breakwaters To determine the history of such breakwaters built in ports where there are no It is quite difficult. Dating of the breakwaters in the Commercial Port of Knidos in order to determine at least the earliest phase of use Archaeological materials found on the breakwaters were examined. The breakwaters in the area, where many amphorae, kitchen vessels and roof tiles were found, date back to the city's B.C. No finds have been found that would predate the resettlement in the 4th century (Pl. 16.1). For this reason, breakwaters were built during the period when the city was resettled. can be considered as a period. As a matter of fact, some researchers, based on the history of the city, say that the breakwaters were built in B.C. They suggested that it may have been built in the 4th century[242] . However, this still remains no more than a terminus post quem. Because Knidos is very It is known that it had an important place in Mediterranean trade from the early periods. The port of such a trade center dates back to B.C. It would be surprising that it was not used until the 4th century. At least in B.C. It is known to date back to the 9th century.

---

[242] Blackman 1982b, 196.

It should not be forgotten that the breakwaters in Knidos could have been built at an earlier stage with this technique243 .

---

243 The Eretria breakwater, which was built with a similar technique, could not be dated based on the construction technique and archaeological findings, and it dates back to B.C., the period when the city was founded. It has been suggested that it may date back to the 7th century. (Blackman 1982b, 196).

4.1.2. Harbor Walls

The coastline of the Trade Port is approximately 900 m long. of this line
The harbor basin is protected by surrounding a large part of it with a harbor wall.
At the same time, these walls are a kind of barrier for the mainland and the sloping topography of Kap Krio.
It served as a terrace wall.

The section of the harbor wall on the mainland is a continuation of the city walls.
The defense system in the east of the city, starting from **the Acropolis244 and**
continuing to the coast in the sloping topography, consists of very thick walls and towers245
(Pl. 17.1). Starting from **tower number 44246, the city walls follow the coastline and**
It continues until the northern breakwater (Pl. 17.2). On the northern breakwater
Tower number 47, which is a part of the defense system and also aims to control the entrance to the harbor
(Pl. 18.1). From this tower, the harbor basin is passed and the harbor walls begin.
The port was built from local limestone and conglomerate blocks247
Its walls have been largely destroyed. However, on the mainland, the breakwater
It can be followed starting from the section where it is connected to the land and all the way to the isthmus.
(Pl. 18.2).

The existing modern structure and filling on the isthmus indicate how the arrangement is made here.
It prevents us from determining whether Our knowledge about this area is limited
to what Strabo reported248

---

[244] **For the city walls of the Knidos acropolis, see. Tirpan 1990, 429-456.**

[245] **The eastern part of the city on the mainland is the most vulnerable area to attacks from land. This**
For this reason, the city walls are thickest in this part of the city. Made from large polygonal blocks
The eastern walls, which are the most difficult to defend, are 4.80 m wide. The narrowest walls are 1.40 m.
It is wide and located between towers 31 and 32. Apart from these, wall thicknesses
It is generally 2.50 meters (McNicoll 1997, 58).

[246] **McNicoll's evaluation was used in the numbering of the towers (McNicoll 1997, Fig.**
11th).

[247] **McNicoll 1997, 55-56.**

[248] **Strabo**
"There lies an island rising majestically and connected to the land by breakwaters."

The harbor walls continue in the part of the harbor facing Kap Krio. Mooring rings inside the harbor wall, in the southwest of the harbour. (Pl. 19.1). Further to the east, by shaving the natural rock, There are dock areas that have been created. Harbor walls made of natural rock Although it was largely damaged at these points where it was shaved, the upper part of the shaved area It can be seen that it continues at certain points on the border (Pl. 19.2).

Some entrances in the Kap Krio section of the harbor wall, opening to the dock. and there are steps created by trimming the natural rock (Pl. 20.1-2). These entrances and steps lead to the dock in this area where commercial activities are intense. transfer of unloaded goods to shops behind the harbor wall and quay, or It has an important function for the transfer of goods from shops and workshops from the docks to ships. had. Again in the same area, continuing from the harbor wall to the harbor basin walls have been identified (Pl. 21.1). These walls are not connected to any structure or dock. It has no direct relationship with the field. Therefore these walls are docks It should be made to separate the areas from each other.

This type of commercial function dates back to before the Hellenistic Period. Ports are generally independent of city walls and canals at the entrance be as clear as possible. There are no protective elements such as towers around the port249. Athlit250, Arwad251, Sidon252, Tyre, outer port of Carthage253 , Phoenician ports such as **Tharros254 and Cadiz, especially in cities of secondary economic and political importance in Greece, Palairos Bay255, Hermioni, Aegina256 , Anthedon257** and **some Etruscan ports such as Cosa and Pyrgi258 ,** Rome's Naples

---

[249] Raban 2009, 63.

[250] Linder 1967, 25-29; Raban 1985b, 30-38, Frost 1995, 7-15.

[251] Frost 1966, 13-22; Frost 1995, 7-12.

[252] Frost 1972, 95-114; Frost 1973, 75-94; Frost 1995, 7-15.

[253] Stager 1976, 151-170.

[254] Linder 1987, 47-55.

[255] Murray 1985, 67-80.

[256] Knoblauch 1969, 104-116; Knoblauch 1972, 50-85.

[257] Schläger et al. 1968, 21-98; Blackman 1973b, 119.

[258] McCann et al. 1987, 60.

Some major ports in the bay, such as Puteoli, Baia and Nisidia, and Ampurias, the most important Roman port in Spain,259 were protected against threats from the sea. There was no defense system.

In this sense, the Trade Port of Knidos falls into the same group in terms of function. leaves the ports. Because the city walls are on the mainland, where the breakwater is connected to the land. It reaches the point where it meets. At this point, it also has a strong tower, small in size but neatly built from large blocks260. If after this point The harbor wall covers the entire harbor basin as a continuation of the city walls. surrounds. The same applies to Kap Krio. Breakwater at Kap Krio The fact that the area is rocky at the point where it meets the land means that the breakwater has to be made from the rocky area. The steep cliff formed as a result of the large-sized blocks cut and the Due to the natural protection it provides, the city walls extend to the beginning of the breakwater. It is not coming. However, in this area, which is the eastern end of Kap Krio, will control both the port entrance and the port basin and There are towers with strong fortifications that can carry out forward surveillance towards the east and south in order to protect the ships and cargo inside261. rectogonal and these towers, built of polygonal stones, are the walls that cover 2/3 of Kap Krio. Although it is a part of the walls and towers, it also serves as a port entrance due to its location. It has a function that provides protection and forward surveillance. In this sense Trade Port of Knidos: Trade dating back to the pre-Hellenistic Period departs from its ports. This situation arises from the topography of the peninsula on which the city was founded. According to the Hippodamic plan, BC. Rebuilt in the 4th century The city is divided into parcels within a completely port-centered system. Public buildings and residential areas have been carefully placed around the port. of the Trade Port The fact that the city is centrally located has also been a factor in its port being evaluated within the defense system262 .

---

[259] Nieto–Raurich 1997, 146-158.

[260] It was named tower 47 by McNicoll (McNicoll 1997, Fig. 11).

[261] McNicoll 1997, Fig. 11th.

[262] While McNicoll evaluated the Military Port within the defense system, the Commercial Port entrance He stated that the section was left outside the defense line because it was too wide. (McNicoll 1997,

4.1.2.1. Dating of Harbor Walls

As far as we know from the quotes of Thucydides (Thuc. III. 33. 2), it was in Knidos, B.C. There were no city walls in the 5th century. In this case, the city walls date back to B.C. at the earliest. 4. It must have been made in the century. This period also includes all Mediterranean It is the period when defense systems developed in the geography. Defensive walls and towers showed great development in the Late Classical-Early Hellenistic Period263 . In this change, in which several factors played a role, the most important factor was the emergence of new empires. changing political boundaries due to the establishment of new borders and situation. The wars and defense strategies that emerged during these political developments led to new developments in siege techniques264. B.C. in 399 The emergence of the catapult, which is thought to have been invented by Dionysios of Syracuse, enabled the rapid development of attack and defense systems265. this too It allowed the development of stronger city walls and towers connected to the city walls. recognized. All these factors are important in the defense of many cities, including Knidos. led to the re-establishment of systems.

The city walls, towers and the harbor walls connected to them in Knidos Knitting techniques seen in the late period, when major changes were experienced in defense systems It shows great similarities with the masonry techniques seen in the Classical-Early Hellenistic period266. Another important factor of the changes in the defense system and urban planning in Knidos was B.C. satrap of Caria in the 4th century Mausollos moved the capital from Milas to Halicarnassus (Vitr. II. 8. 11). This With the move, the construction activities that started in the new capital spread to the entire Caria Region267. The city walls of the new capital were built in B.C. mid 4th century

---

55). However, both the city walls and towers that continue up to the breakwaters and the harbor walls The Trade Port is a defensive part of the city due to the breakwaters that also serve as defense lines. should be evaluated within the line.

[263] Pedersen 2010, 269.

[264] McNicoll 1986, 305-313.

[265] Marsden 1969, 48-64.

[266] According to Karlsson, this technique, seen in the Late Classical Period, came from the Peloponnese or Sicily. taken (Karlsson 1994, 151).

[267] Karlsson 1994, 144-145.

It is dated268. Alinda city walls, which have a similar knitting technique, are
It is associated with the exile period of Mausollos' sister Ada in Alinda, BC. It is dated to 340 and just after269. Apart from Halicarnassus and Alinda, the Carian cities evaluated in the same period are Myndos270, Labraunda271 ,
The city walls **of Latmos272, Amyzon273 and Alabanda274 were built during the Hekatomnos Period275. The city walls in Priene, one of the cities rebuilt during the Classical Period, right after the Hekatomnos, date back to B.C. Between the middle of the 4th century and B.C. It is dated between 330 and 276. Erythrai walls, which are very similar to the Knidos masonry technique, are contemporary with Priene and date back to B.C. It is dated to 330 BC277. The walls of Kolophon, another city considered in this group, date back to B.C. It is dated to the end of the 4th century278. wall in Knidos**
The knitting technique seen on the harbor walls connected to the walls of Hekatomnos
Rather than the characteristics of the period, it is a great city with Priene and Erythrae immediately afterwards.
shows similarities. As a matter of fact, in his evaluation, McNicoll said that Knidos
By grouping the city walls with the city walls built after the Hekatomnian Period, B.C. He dated it to the year 330279 .

Except for partial repairs, the Knidos city walls and the harbor walls connected to the city walls date back to B.C. It must have been completed in the 330s. This date is the same weave

---

[268] Pedersen 1994, 215-235; McNicoll 1997, 16-22; Pedersen 2010, 269-316. With this Karlsson said that some of the walls in the city, especially the Myndos Gate and two large He stated that the tower belongs to the Hellenistic Period (Karlsson 1994, 145, n. 14).

[269] Karlsson 1994, 147.

[270] Tÿrpan 1988, 167-190; McNicoll 1997, 22-25.

[271] Karlsson 1994, 150-151; McNicoll 1997, 38-42.

[272] Peschlow 1994, 155-172.

[273] Karlsson 1994, 151.

[274] McNicoll 1997, 31-38.

[275] McNicoll 1997, 15-45.

[276] Karlsson 1994, 146-147; McNicoll 1997, 48-53, 71-74; Rumscheid 2000, 41-45.

[277] McNicoll 1997, 60, 62-67, 71-74.

[278] McNicoll 1997, 67-74.

[279] McNicoll 1997, 74.

Kap Krio harbor structures built with the technique and other areas of the city are revealed. It also coincides with the archaeological finds unearthed.

4.1.3. Dock

Considering the topography where trade ports can be built, it is
It is expected to have a dock structure where they can come and anchor, unload
and pick up cargo, and take shelter in difficult weather conditions[280] .

It was used as a dock in the works carried out on the mainland part of the Trade Port.
No used areas could be identified. Buildings excavated in this area
and looking at the ruins visible on the surface, there is no situation that would require a dock.
There is no. Odeon, Hellenistic Period Villas on the shoreline of the port on the mainland
The presence of the Theater and the absence of any building remains for
commercial activity shows that a dock structure was not necessary[281] .
In Kap Krio, most of the part of the island facing the harbor is used as a dock.
appears to be used. Within the harbor walls located in the southwest of the harbor
There are mooring rings. Approximately 110 m east of this area
There are dock areas created by shaving the main rock.

4.1.3.1. Mooring Rings

Mooring rings[282] are placed within the harbor wall, in the southwest of
the harbour[283]. In the part of the harbor wall that is solid in this area
It is seen that there are 2 binding rings (Pl. 21.2). Both are in situ
The mooring rings are placed within the pseudo-isodomic built harbor wall.
(Pl. 22.1). 6 rows of the wall where the binding rings are located are still visible today.
can be seen. The mooring rings were built at a height of 1.10 m above sea level on
the approximately 3 m high wall[284]. mooring mooring

---

[280] Özgan 2009, 105-107.

[281] On the mainland, there are rows of shops in the Stoa of Dionysus, located on the terrace of Dionysus.
However, the row of shops in question is not directly connected to the Commercial Port shoreline.

[282] Rings or metal arrangements made of stone or metal to which ships tie their ropes after docking at the pier.
Those that have a block shape with a hole in the middle are called mooring rings.

[283] Love 1968, 135, Fig. 13-14.

[284] When we order from sea level up, the first row is 0.45 m, the 2nd row is 0.42 m, the binding
The height of the 3rd row, where the rings are located, is 0.70 m, the 4th row is 0.40 m, the 5th row is 0.64 m and the 6th row is 0.35 m.
The height of the harbor wall preserved in this area is approximately 3 meters.

When we look at the situation and placement of the rings within the wall,
During the construction of the harbor walls, B.C. They were made in the 2nd half of the 4th century
It is understood.

The binding ring number 1 in the west has survived to this day in its full form.
By the way, half of the binding ring number 2 is broken. But
The binding ring can be seen in general outline.

Mooring ring number 1 in the west is pseudo-isodomic woven port
It is on a vertical block placed inside the wall (Pl. 22.2). of the block
The dimensions outside the wall are 0.70 x 0.70 m and there is a square form in this area.
shows. The square shaped block protruding outward is approximately
The diameter of the binding ring opened in the middle is 0.30 meters.
(Pl. 23.1). Mooring number 2, 9.30 m south of mooring ring number 1
It has a ring (Pl. 23.2). It was placed inside the harbor wall with the same technique.
The binding ring number 2 has the same dimensions as the binding ring number 1.
has. Although the ring part was broken, its diameter could be measured and it was connected to ring number 1.
It was observed that they had the same dimensions.

The distance between the mooring rings is 9.30 meters. Accordingly, to this point
The width of merchant ships to anchor should be maximum 9 m. excavation
When we look at the width of the shipwrecks, we can see that there were large ships carrying grain to Rome.
It can be seen that most of the ancient ships, except for large ships, could anchor in this area[285] .

The docks in ancient ports were generally single-stage.
The existence of double-tiered docks is also known. Harbor wall in Knidos
The height of the wall where the fastening rings are located is approximately
It is 3 meters. The buildings connected to the port located in the south of this area are the 2nd terrace.
It is located on. Thus, among the structures that have dock and commercial functions,
There is another terrace. It was used as an agricultural area until recently.
It is very damaged due to its use and depending on the topographic structure.

---

[285] **Widths of important shipwrecks from different periods: Kyrene (4th century BC) 4.3 m; Grand Congloue (2nd century BC) 5-7 m; Albenga (1st century BC) 5 m; Titan (1st century BC) 8 m; Marseille (3rd-5th century AD) 7-9 m; Yassÿada (6th-7th century AD) 5 m (Casson 1971, 214-216).**

It is very difficult to interpret the arrangement on the terrace in its current state. But
The goods arriving at the port can be transported to these structures or loaded onto ships.
There is no doubt that a platform will be needed to collect the goods brought. This
In this case, on the first terrace, that is, the quay wall and the rows of shops and workshops.
On the terrace between the building complex where it is located, the first commercial goods coming to the port are seen.
a platform where goods are collected before being unloaded or loaded onto ships
must be used in its function. This platform is also wide enough to install a crane system to lift
heavy cargo such as timber or marble286. Thus
mooring rings in the excavated Leptis Magna Harbour.
The area where it is located was built in two stages and the second stage was used as an area
where commercial goods were collected287. A similar situation applies to the Port of Trajan in Ostia288 .

Shipment and port control in the area where the mooring rings are located
archaeological findings to better understand how the business was maintained
It becomes even more possible with the help of In this sense, the most important archaeological
document is the Torlonia relief289. This one depicts a momentary situation in the Port of Ostia.
In the relief, the dock area where the mooring ring is located in the lower right corner and this
A ship can be seen approaching the area from the bow. The ship is tied from the bow with a rope
It was tied to the ring and started to unload its load. From the bow rail to the dock
On the discarded scaffolding board, a dock worker is depicted carrying an amphora on his
back290. This relief period, dating back to the 2nd century AD, is in the port of Knidos.
Although it was built much later than the area where the mooring rings were found.
However, the method of use should be the same. Buildings on the terraces above this area
Considering that, similar scenes may have occurred in Knidos.
We can say.

Mooring rings in Knidos were more commonly used in ancient times.
on horizontal blocks, although they are less usable when on vertical blocks.

---

[286] Oleson 1988, 148.

[287] Gerkan 1959, 142, Fig. one; Shaw 1972, Fig. 21.

[288] Testaguzza 1970, 166; Blackman 1982b, Fig. 2.

[289] Testaguzza 1970, 171.

[290] Casson 2002, 121.

mooring rings can be seen291. While these blocks are generally placed on the lowest surface of the docks292, they are also seen to be placed on a high wall, as in Leptis Magna293 **and Ostia294,** which were **important ports of the Roman Period,** and in Knidos295. **Some of the examples in Ostia were made in the shape of a lion's head296. In an example from Terracina, a lion's head and front paws are seen297 .**

According to the few published examples, the distance between mooring rings is regularly 14-15 m298 in the Port of Ostia and 5 **m299 in Leptis Magna. , In Terracina, it reaches up to 17 m. But in the example from Terracina, It has been suggested that due to the large distance between the mooring rings, mooring bollards or pontoons may have been used between them300. this distance It is 9.30 meters in Knidos. The dimensions of ancient trade ships were largely There is a certain standard for the distance between mooring rings in different ports. It appears that there is not.**

When we look at the few ports that have been researched on the Anatolian coast, it is seen that mooring bollards are generally used301. Only Lykia Region

---

[291] Hadjidaki – Stefanakis 2004, 115; Teodoulou – Memos 2007, 257, Fig. 5.

[292] Hadjidaki – Stefanakis 2004, 118; Teodoulou – Memos 2007, 257, Fig. 4.

[293] Shaw 1972, Fig. 21-22.

[294] Testaguzza 1970, 166; Blackman 1982b, Fig. 2.

[295] Parker 1868, 1785-1786; Bartoccini 1958, Pl. LIII; Williams 1976, 75.

[296] Parker 1868, no: 160; Parker 1878, Pl. XIV; Williams 1976, 75, Fig. 3.

[297] Mengarelli 1900, 637-638, Fig. 2; Williams 1976, 75, Fig. 2.

[298] Blackman 1982b, 203.

[299] Bartoccini 1958, 28.

[300] De la Blanchere 1881, 333, Pl. X.

[301] Baglama with baglama bollards created by trimming natural rock on Giresun Island rings were used together (Doksanaltÿ et al. 2010, 148-149, Drawing 3, Fig. 3-5); same usage It is seen in the Kekova Region Ports, where the baglama bollards and the natural rock Binding rings formed by trimming were used together (Aslan 2011, 63-64, 78-79, 95-96), a baglama bollard was identified in the small harbor at Phaselis (Blackman 1973a, 360, Fig. 17).

In Aperlai, one of the port cities, a mooring ring block was identified among the blocks scattered underwater302 .

4.1.3.2. Dock Areas Created by Shaving Natural Rock

110 m east of the area where the mooring rings are located There are three different dock areas, which are continuations of each other, created by cutting the rock303 (Pl. 24.1-2).

The first dock area in the north is 27.20 m in the east-west direction. is long. The widest part of the pier, where the width changes because the shoreline is not very smooth, is 9 m and the narrowest part is 4.5 meters (Pl. 24. 2; Pl. 25.1). second The dock area is located 2.80 m south of the first dock area. of this area Its length in the north-south direction is 20.60 m, while its width has similar dimensions to the first quay area (Pl. 24.2; Pl. 25.2). The third dock area is smaller than these. This dock is located 30 m south of the second dock area. The upper part of the round rock mass in the area and the parts facing the sea It was formed by trimming (Pl. 24.2; Pl. 26.1). North-south of this area While its longitudinal length is 11 m, its widest part is 8.50 meters.

The first and second dock areas are approximately 0.80 meters above sea level. They are arranged at a height of 0.90 m. The third dock area has a height of 1.50 m. has. These heights are in ports in the Mediterranean where the tide rate is very low, They are considered as the heights where ancient ships could dock, unload and pick up cargo304 .

In the dock areas created by shaving the natural rock, mooring bollard or mooring ring to which ships will attach their ropes has not been found. In this case, the ships are placed in the gaps in the rocky area.

---

[302] Aslan 2011, 48, Lev. 26.2

[303] These areas, which were probably planned in the same period, were divided into three different areas because the topographic structure was not suitable. It is seen as. In ancient times, these areas were created by shaving the natural rock. Wooden scaffoldings, which we know were used, must also have been used.

[304] Blackman 1982b, 193, 199; Blackman 2008, 648; Raban 2009, 65-66.

It must be tied to iron or wooden stakes. However, any regarding this
Since there is no material available, this idea is nothing more than an assumption.

Unlike the dock area where the mooring rings are located, natural rock
The areas created by shaving have a wide platform at the lower level.
Because of their size, no different platform can be seen at the top of the rocky area (Lev.
26.2). Incoming cargo or cargo to be sent in this area
collected on the platform created by cutting and distributed from there.
has been made. There are even neatly cut, narrow rectangular sections on these platforms.
There are. These sections were placed by placing the amphoras upright side by side.
There should be compartments where they are stacked.

Blackman dates the dock created by shaving the natural rock in Knidos back to
B.C., when the city was re-planned. He suggested the middle of the 4th century. However, he
also stated that this could be a terminus post quem305. natural rock
It is almost impossible to suggest a date for any structure created by shavings306. For this
reason, Blackman's dating suggestion for this area is accepted.
It is not a feasible proposition. As a matter of fact, the history of the existing port structures and many
buildings seen in the city dates back to B.C., when the city was re-planned on old ruins. 2nd century of the 4th century
is half. The question mark Blackman puts for this dating is also appropriate. Because the city
dates back to B.C. In the 4th century, Datça changed from its place in Burgaz to its current place in Tekir.
The claim that it was moved has almost been refuted by the archaeological data unearthed in both
the American and Turkish excavations of Knidos. 307. According to the materials unearthed during
the excavations at the end of the 19th century, the history of the city dates back to B.C. It goes back to the 3rd thousand B
However, the fact that materials from this period are only mentioned in publications raises
questions about their accuracy309. However, American and Turkish

---

[305] Blackman 1982b, 202.

[306] A similar situation is valid for Kekova Region Ports. By shaving the natural rock
The dating of many structures created took into account other architectural structures and archaeological findings.
(Aslan 2011, 40-104)

[307] Özgan 2009, 93-112.

[308] Bent 1888, 82.

[309] Bittel 1942, 173; Bruns-Özgan 2002, 7.

BC in excavations. Many materials have been found from the 1st millennium BC310 and ancient times The earliest examples of dock structures are docks created by cutting natural rock.311 These areas in Knidos date back to B.C. It suggests that it may have been used much earlier than the 4th century. Located in Iasos and BC. to the 5th century
This idea is supported by an inscription dating back to 2000, which is evidence of the commercial activities of Knidos312 .

---

[310] Love 1978, 1111; Bruns-Özgan 2002, 7-8.

[311] The earliest example of a dock is the dock area created by shaving the natural rock in Sidon. (Blackman 1982b, 202-204). Archipelago on Giannutri, a small island near Italy By shaving off the natural rock in the harbour, which is very similar to the dock areas of Knidos. There are docks built (Bruno 1973, 366-367, Fig. 3.) A small port in Sicily The Ognina port dock was also created by shaving the natural rock (Raban 2009, 65).

[312] The inscription includes the honor decision given by the councils of Iasos to the merchant Lykinades of Knidos. is taking. With this decision, the merchant gained an untouchable and unconditional right to enter and exit the Iasos Ports. has done. The fact that the same rights were given to the merchant's father and grandfather created a conflict between Iasos and Knidos. It shows that commercial relations date back to the Archaic Period (Aydaÿ 2010, 51-52).

4.1.4. Kap Krio Port Structures

Research conducted in and around ports in the Mediterranean basin
Afterwards, there is usually a road behind the docks or piers and then
It has been determined that there were shops, warehouses, stoas, workshops, workshops
and taverns within or behind the commercial center313. In addition to these structures, fresh water resources,
It was an important service for people using the port and therefore inside these structures and
There were also cisterns around it.

Knidos 3rd period, in Kap Krio during the excavation seasons between 1992-1996
During the work carried out, some structures built on terraces were unearthed314 (Pl. 27.1-2).
Among these structures built on terraces
Streets, shops, workshops and cisterns can be seen. This group of structures is related to the mainland
East of the isthmus connecting Kap Krio, south of the Trade Port
It was built on 4 terraces rising on top of each other from the shores. Grill
The levels on the terraces deployed depending on the plan are the main levels in some areas.
The shaving of the rock has been adjusted with artificial fillings in some areas. terraces
The connections between the streets are north-south oriented streets with stairs and these are perpendicular.
It is provided with east-west oriented side streets.

4.1.4.1. Avenues and Streets

In Kap Krio, running parallel to the Trade Port and building terraces
two side streets in east-west direction and proceeding perpendicular to the harbor to the upper terraces.

---

313 Blackman 1982b, 204.

314 The first excavations in this area were carried out during IC Love's work in Knidos (Love 1970, 152).
Systematic and detailed excavations in the same area were carried out by the team headed by R. Özgan (Özgan
1995b, 171-172; Özgan 1995c, 298-301; Özgan 1996, 278-281; Özgan 1998, 133-134). This area, which was
excavated between 1992 and 1996, was located in E. Doksanaltÿ.
as a doctoral thesis titled "Knidos Kap Krio Excavation Area", which was discussed in all its aspects by
has been prepared. Within the scope of this thesis, the excavation area, terraces and building complexes on the terraces,
architecture, stratification and its findings, fine and coarse ceramic pot findings, findings in excavation sites.
The deposits and contexts were examined. The structures that will be evaluated in this section
Apart from our own observations, the main source regarding this issue is E. Doksanaltÿ in 2006.
It is the completed doctoral thesis (Doksanaltÿ 2006).

The street with two stairs in the north-south direction, providing transportation, is part of this building complex. It provides its connection within itself and with the dock.

Blackman mentions that there is often a road behind the docks or piers315. Diggers right in front of the structures in Kap Krio

There is a street named "East West Intermediate Street 1" by 316 (Pl. 28.1). The docks in the Kap Krio section of the Trade Port

This street, located on the terrace just above, is used by people approaching the dock and unloading or loading cargo. The area had an important function for the rows of shops on the ships and terraces. 2.

The street extending right in front of the rows of shops built on the terrace

Its length is 34 m and its width is 2.50 meters. The street is partially divided depending on the topographic structure. by trimming and smoothing the bedrock, largely from compacted soil.

has been created. As a result of the research , **it was determined that the street was used from the end of the Classical Period until the Roman Period317.**

on the same level as the foundations and door thresholds of the northern outer wall of the rows of shops was located. In the Late Antique Period, the street that lost its function was closed and used as a different street. It has been rearranged for different uses.

Likewise, the one on the 4th terrace, with similar dimensions and “East West”

The street called "Ara Street 2" lay right in front of the rows of shops on the 4th terrace and served the same function for these rows of shops318 (Pl. 28.2).

The northern borders that form the western and eastern borders of the parcel where the buildings are located are

The streets with stairs in the south direction allow the commercial goods coming to the port to go to the upper terraces. It was also used to transfer goods from the upper terraces to the port to ships that would take cargo from the port. It was first excavated during the 2nd period excavations and the building "Merdivenli Caddesi 3", which constitutes the eastern border of the group, is 3 in more detail. It was unearthed during period excavations. The "East West" section of this street behind the quay While its width is 7 m at the point where it meets Ara Street 1", it narrows towards the upper terraces.

---

[315] **Blackman 1982b, 204.**

[316] **Ninety-six 2006, 55.**

[317] **Ninety-six 2006, 55.**

[318] **Ninety-six 2006, 128.**

It was determined that the width decreased to 5 m on the 4th terrace319. This is topographic
The density is higher due to the secrets of the shops on the 2nd and 4th terraces rather than the features.
This can be explained by the desire to keep the streets wide in the areas where the street is located.

4.1.4.2. Shop Rows

4.1.4.2.1. Second Terrace Shop Row

The first studies at Kap Krio were carried out in 1967, during the excavations carried out by the American researcher IC Love in Knidos320. Systematic and comprehensive excavations were completed during the 3rd period excavations321. two different
As a result of these studies carried out during the excavation period, parallel to the Trade Port
A terrace measuring approximately 10 x 34 m was unearthed. This terrace has 5.5 x 34
In the south section of the meter square, there is a row of 6 shops running parallel to the quay area in the east-west direction322 (Pl. 27.2; Pl. 29.1-2).

Terrace, 3rd terrace in the north and 1st terrace in the south and the buildings on them
While it is bordered by 'Merdivenli Caddesi 3' in the east and another street descending perpendicularly to the port in the west.
It is bordered by a staircase street.

Both the terrace and the terrace that forms the southern part of the building complex
The south wall was built in polygonal style. The entire terrace without any interruption from the wall continues throughout. Today, walls that can be protected up to a height of 3-4 m
It is built of hard greyish-blue limestone blocks with polygonal edges. of the building
Although the walls generally belong to the same period, the terrace wall, other
It has more meticulous workmanship than the walls.

The eastern side wall of the building complex that forms the row of shops is a large-sized,
It was built in isodomic style from grey-coloured, rectangular, local hard limestone blocks.
The width of the wall is 0.90 meters. Today, it is preserved up to a height of 1.60 m.

---

[319] **Ninety Six 2006, 166-169.**

[320] **Love 1970, 152.**

[321] **Özgan 1995b, 171-172; Özgan 1995c, 298-301; Özgan 1996, 278-281; Özgan 1998, 133-134.**

[322] **Ninety Six 2006, 44-78.**

The wall has very fine workmanship, and this provides important data about the first construction phase of the shop row323 .

The western wall of the building complex and terrace is different from the south-terrace wall. It was built in polygonal style from gray colored local limestone blocks. The width of the wall is 0.90 m and a 2 m high section has been preserved to this day. has arrived.

It forms the front part of the building complex and is built in isodomic style. The northern wall consists of gray local limestone rectogonal blocks. Wall Its width is 0.80 m and it is partially well preserved up to a height of 1.50-1.70 m.

Masonry techniques in Kap Krio harbor structures, It is very similar to the knitting techniques seen. end of the Classical Period This similarity with the harbor walls, which are understood to have been built in the It also shows that it was planned and built in the same period.

According to the knitting technique, B.C. Original building built in the 2nd half of the 4th century During the period, the walls were polygonal in the south and west, as in the other terraces, and and in the east, it was planned isodomically from quadrangular blocks. Although there is a difference in order, the walls show harmony and unity with each other324. Both where both polygonal and rectogonal style walls were used together and Hellenistic Dated to the beginning of the Period, houses numbered 3 and 5, also from Kassope, are in the same style as the Kap Krio buildings325. B.C. It belongs to the 2nd half of the 4th century Rectogonal limestone rear of house number 32 from Priene, which is considered Its walls are similar to the rectogonal walls of the Kap Krio building complex326 .

The building complex has a 0.50 m height in the north-south direction in the inner part. It is divided into six rooms with wide partition walls. Distinguish places from each other

---

[323] Similar examples of this wall are found in Priene (Karlsson 1994, 146-147; McNicoll 1997, 48-53, 71-74; Rumscheid 2000, 41-45) and Erytrae (McNicoll 1997, 60, 62-67, 71-74).

[324] In the ancient city of Kassope, located in the northwest of Greece, walls built from Kap Krio polygonal blocks and walls with the same knitting technique date back to B.C. It is dated to the 2nd half of the 4th century Hoepfner – Schwander 1994, 127, Fig. 104.

[325] Hoepfner – Schwander 1994, 146-156, Fig. 144-145.

[326] Hoepfner – Schwander 1994, 214-215, Fig. 209.

The walls are smaller in scale than the blocks used on the exterior walls of the building. It was built in isodomic style from hard quadrangular limestone. rooms next to each other They are lined up and the entrances open to the east-west side street right in front of them. One The complex as a whole is a simple structure consisting of quadrangular planned rooms lined up side by side. has a plan.

Second Terrace Shop Row Room A

The first excavation in room A, located just at the eastern beginning of the Kap Krio 2nd terrace American researchers who carried out their studies evaluated the terrace and the first space here as a simply arranged residence[327]. However, excavations and research conducted under the direction of R. Özgan showed that this room dates back to B.C. First use in the 4th century It has been shown that it was the first place in the east of a row of shops consisting of six rooms lined up side by side, starting from the 1st stage[328] .

Room A has a rectangular plan, close to a square, measuring 4.50 x 5.60 m inside. The shop is open east-west with the 1.30 m wide entrance located in the middle of the northern outer wall. It is connected to the straight street. The first construction phase of Room A was made with the masonry technique, B.C. It is dated to the mid-4th century. This dating is compressed Local and Attican production BC found in drilling works carried out under the ground made of soil. Ceramics dating back to the 4th century It is also supported by pieces of vessels.

The room, which consisted of a single space in the first construction phase, emerged in the Roman Period. 3.46 m long, irregular, in the north-south direction, close to a point An intermediate wall of stones was built and a large wall measuring 4.50 x 3.20 m was built in the east. It is divided into two rooms and a small room measuring 4.50 x 1.75 m in the west. separated. The 1 meter space left at the end of the added wall is divided into two It provides the transition between sections. After this change, we ended up at location A. Raising the original rammed earth floor by 0.40 m until use Apart from this, no changes have been made in terms of plan or architecture. In the final use phase of the terrace, from the end of the eastern outer wall, 0.70 m A thick, irregular stone wall with mortar added was added. The addition made

---

[327] **Love 1970, 152.**

[328] **Ninety-six 2006, 46.**

and the Eastern outer wall of the shop row and therefore of space A. 'East-West Intermediate' It completely closed Street 1.

There are no other items in the shop other than daily use and storage containers. The absence of any finds gives no idea what kind of commercial activity the shop was engaged in. Although it makes execution difficult, it is thought that it may have been a shop where olive oil or wine was bought and sold, due to the amphorae found in the warehouse section[329] .

Second Terrace Shop Row Room B

Room B, which forms the second shop in the east on the terrace, is It has a rectangular plan, almost square, measuring 4.50 x 5.60 m. Room A in the east, It is bordered by Room C to the west and 'East-West Intermediate Street 1' to the north. north outer The shop is east-west with the 1.30 m wide entrance located in the middle of the wall. It is connected to the straight street.

B.C. Long use from the 2nd half of the 4th century to the 5th century AD No changes were made to the plan of the shop during the process. However, some minor changes have been made in the space over time. One of the changes seen especially in the Roman Period was that the original floor was 0.30 m is to be upgraded. North wall due to raising the ground level The door sill at the entrance of the shop above is a terracotta rectangular It was raised by laying bricks.

It has a long period of use and a fire known to have occurred in the 5th century AD. Fragments of various storage containers in the discontinued shop row However, no finds related to the commercial activities of the shop were found in room B[330] .

Second Terrace Shop Row Room C

C, which forms the third shop from east to west on the terrace The room has a square plan, measuring 4.50 x 4.60 m inside. Room B to the east, D to the west It is bordered by the chamber and 'East-West Intermediate Street 1' to the north. north outer wall

---

[329] **Ninety Six 2006, 56-59.**

[330] **Ninety Six 2006, 60-61.**

The shop is oriented east-west with a 0.95 m wide entrance in the middle.
It is connected to the street.

The shop built during the arrangement of the terrace was used until its last use.
It does not show any change in terms of plan. But long use
During the process, some repairs and reconstructions were carried out within the shop due to
the damage suffered by the terrace. First of all, during the first construction period of the shop, the door
compacted soil floor just 0.10 m below the threshold, 0.25 m
has been raised.

In room C, unlike rooms A and B, there are amphorae and other large storage items.
No containers were found. The glass bottles found in the room are an important
constitutes the find group. Small compared to finds in other rooms
However, the greater number of valuable and finely crafted vessels was found in shop C.
perfumes, cosmetics or medicines stored in this type of terracotta and glass containers
It suggests that valuable liquids such as The coins found on the floor, 331, the hook and chain
of a bronze weighbridge and lead weights are commercial signs of the place.
clearly shows its function.

Second Terrace Shop Row Room D

Room D, which forms the fourth shop at the east end, measures 4.50 x 4.60 inside.
It has a square plan with dimensions of m. Room C in the east, room E in the west and 'East-West' in the north.
It is bordered by Ara street 1'. East and west partition walls limiting the space
It is made of small-sized rectangular limestones. Both polygonal terrace wall
Both the rectogonal north-south partition walls are compatible with the original construction phase of the space.
is related. However, very few parts of the original walls have survived to the present day. North
With the 0.95 m wide entrance located in the middle of the outer wall, the shop is located between east and west.
It is connected to the street.

In the space, which is basically organized as a rectangular shaped shop,
There has been no change in this aspect over the long period of use. But various
In cases of destruction due to damage caused by various reasons, repairs have been made over time.

---

[331] **On the coins, mutual busts of young Caracalla and his wife Plautilla can be seen. Similar**
For examples see Head 1897, 17; Kraft 1972, I. 60, no. 15.

and new construction activities were carried out. The ground level raised by these repairs
The door sill, made of monoblock limestone, is under the new floor.
remained. The resulting level difference is closed by placing terracotta brick plates on the door.
has been resolved.

Found scattered within the layer without showing any grouping.
Daily use materials are far from showing the function of the shop. But immediately
The pieces belonging to the four amphorae found near the western wall were also made with olive oil or oil.
It suggests a commercial activity related to wine. Located next to the amphoras
Situla-bowls produced in Egypt support this idea.

Second Terrace Shop Row Room E

Room E, which is the 5th space of the shop row from the east, is 4.50
It has a square plan with dimensions of x 4.60 m. In the middle of the north wall, on the north side of the shop
There is a 0.90 m wide entrance connecting it to the east-west side street. LONG
Unlike other rooms, room E has an important effect during the usage process.
changes have occurred. After the earthquake in the Late Hellenistic Period
The plan started with the repair works carried out after the demolition of the room walls.
This change continued until the 5th century AD.

Second Terrace Shop Row Room F

Room F, which is the 6th and last space of the shop row from the east, costs 4.50
It has a rectangular plan with dimensions of x 6.10 meters. In the middle of the north wall,
A 0.90 m wide entrance connecting the store to the east-west side street in the north
There are. Place F, the last shop at the western end of the terrace, is also the other
It is arranged larger than the shops. Occurred in the late Hellenistic period
The partition wall between room E and room F collapsed due to the earthquake.

With the repair phase that started after this destruction, rooms E and F
There have been major changes in the plan. Accordingly, rooms E and F
has been combined. 1.5 m west of the partition wall separating rooms E and F.
A new partition wall was built inside, made of small and irregular stones, and a third room was built inside.
has been created. With this merger and divisions within itself, the three-room
It was converted into a single shop. After this plan change, rooms E, F and G were
inward, 4.50 x 2.10 m; 4.50 x 4.05 m; They have a quadrangular plan, measuring 4.50 x 4.60 m. This

The new three-part shop is located on the north wall of room F, 0.95 m.
It was connected to the street in the north with a wide entrance.

East of space E, which is considered as the warehouse and office section of the store
Pieces of amphora and other storage containers in the small room in the
has been revealed. This means that the small room in question is really about storage.
shows that it is relevant. In addition to storage containers, there are 11
It is noteworthy that there are pieces of a red-lined serving plate. This
As it turns out, the little roomer, in addition to storage, is also a private store of the shop owner.
It was also used as a section where materials related to its use were stored.

Corn Red lining located on the floor in the F1 section inside the shop
Situla bowls, which fall into the flask and Egyptian drip-lined groups, are important in
terms of showing relations with Egypt[332] .

Located on the ground in the F1 space, which forms the western part of the store.
folded lead net weight with hook and chain belonging to a bronze scale, two pyramidal
and a bar of lead weights clearly indicate the commercial function of the shop. 8 bronze
coins, which were badly damaged by fire, were found on the ground[333] .

4.1.4.2.2. Fourth Terrace Shop Row

Starting from the south of the slope, the terrace located in the fourth place in the
Kap Krio I. Excavation area was completely excavated and cleaned in 1992[334]. These studies
As a result, approximately 10x34 m in size extending parallel to the Trade Port.
The terrace was unearthed (Pl. 27.2; Pl. 30.1-2). 5.5 x 34 meters south of this area
A long, thin structure extending parallel to the sea in the east-west direction in the
The complex is located. In the northern part of this complex, measuring 2.5 x 34 meters,
A narrow passage that extends in front of it and intersects perpendicularly with the staircased streets on the sides.
The street is located. The walls and general structure of the building located on the terrace are
agricultural activities carried out for a long time and until recent years
It was severely damaged due to

---

[332] **Ninety-six 2006, 76.**

[333] **Ninety-six 2006, 76.**

[334] **Özgan 1995a, 171.**

4th terrace, 5th terrace in the north, 3rd terrace in the south and the buildings on them While it is bordered, there is 'Staircase Street 3' in the east and another staircase street in the west. The great construction of Knidos carried out in the 2nd half of the 4th century BC The terrace prepared within the program, accordingly within the framework of the Hippodamic plan. edited. This part of Kap Krio is where the rocky terrain is closest to the surface. is one of the fields. Accordingly, the terrace is largely covered by this rocky terrain. It was created by shaving. On the other hand, the gaps between the bedrock The terrace wall and building complex were built on the flat area that was filled and thus obtained. has been made. Late classical structure coming out of the filling in the gaps under the terrace floor. Ceramic finds dated to this period show that the terrace was arranged in this period. shows.

Both the terrace and the terraces that make up the southern part of the building complex are The south wall was built in polygonal style. The wall covers the entire terrace in a single line. continues throughout. The wall is hard, which can be protected up to a height of 2.5-3 m in places. It is built from grayish blue limestone polygonal blocks. East, west and middle of the terrace as a part of the bedrock terrace wall, which remains high in the sections edited. The main structure, which was trimmed and smoothed up to a height of 1.5 m at some points. It can be seen that the rock was used as a part of the terrace wall.

It forms the eastern and western outer limits of the terrace and also the building complex. The walls extend perpendicularly to the south terrace wall in a north-south direction. The eastern side wall of the building is constructed of large rectangular local gray hard limestone blocks. It is made and isodomic style. The south-eastern corner of the wall was trimmed and placed on the raised bedrock335. The western wall of the building complex and terrace is polygonal style, made of gray hard limestones of different sizes, such as the south-terrace wall. has been built. The western wall, which is also 0.80 m wide, is 2.5 m high in places. It remained standing until

The northern wall of the complex has been largely destroyed. At many points, only the foundation slots carved into the bedrock of the wall remain. side street in front The northern wall, which continues along, is 0.80 m wide. largely destroyed Although it was and various changes were made to it in different periods,

---

335Özgan 1995a, 171, Fig. 13.

As far as it is understood from the existing ruins and foundation traces, the northern wall was originally It was built of gray hard rectogonal limestone blocks and isodomic style. It is knitted.

Thus, the building on the 4th terrace dates back to B.C. Built in the mid 4th century During the original construction period, its walls were polygonally shaped in the south and west. While it was arranged isodomically from quadrangular blocks in the north and east. has been determined. However, although there is a difference in order, the walls are in harmony and harmony with each other. shows unity.

Inside the building complex, there is a 0.50 m wide building in the north-south direction. It is divided into nine rooms by partition walls. These places are lined up next to each other and They open onto the east-west side street right in front of them. The locations are quite simple It has an arrangement and the floor is made of compressed soil. A. and the southern parts of E rooms and the floor at some points of the complex. It consists of bedrock that has been shaved and smoothed.

The rooms of different sizes that make up the complex naturally extend the length of the building. They have undergone various changes throughout their use. original however During the construction phase, the rooms were lined up side by side in this long building. They have a quadrangular plan. The walls that separate the spaces from each other are the exterior of the building. Hard quadrangular limestone, smaller in scale than the blocks used in the walls It was built from isodomic stones. on the walls and therefore the structure Some changes were made to the plan over time. Mainly quadrilateral forms Without changing, sometimes the rooms were narrowed, sometimes two rooms were combined and sometimes The rooms are completely closed.

Excavations and research have revealed the original state of this building complex. Besides, there is a row of shops consisting of nine rooms lined up. has shown. Both the architectural features and the findings date back to B.C. when this row of shops was built. It shows that it was used over a wide period from the 2nd half of the 4th century to the middle of the 5th century AD336 .

---

[336] **Ninety Six 2006, 119-127.**

Fourth Terrace Shop Row Rooms A and B

From the original phase of use of the building, rooms A and B together form a shop at the eastern end of the complex 337. During the original construction phase and the building on the 4th terrace, which is used as a commercial building in its final use phase. Room A, which is the first room at the eastern end of the complex, measures 4 x 5 m inside and out. It has a quadrangular plan. The room has a street with stairs to the west and an 'East-West Intermediate Street' to the south. Street is limited to 2'.

Planned isodomically with the south terrace wall built in polygonal style. The eastern wall indicates the original construction phase of the room and the building complex. However, the north-outer and west walls of the space and therefore the complex are largely has been changed. However, the original isodomic structure built from small square blocks Their style has been changed down to its basic level. There are original stones on both walls. using but mostly irregular stones, starting from the foundation level. knitted again. With the east-west side street continuing along the terrace in the south The connection to the room is provided by an entrance of 0.90 m. Similarly the western wall It is located on the building and forms a connection with B space, located immediately to the west, The originally 0.70 m wide entrance was covered by brickwork. Thus, space A By closing all connections in the original plan, its relationship with the street and the adjacent space was reconstructed. has been cut.

In the southeast corner of the room, there is a pear-shaped structure carved into the bedrock and a height of 3.25 m. There is a meter-deep cistern.

Fourth Terrace Room B

Room B, the second room at the east end of the shop row, 2.5 x 5 m It has a quadrangular plan in size. Located in the complex and measuring approximately 4 x 5 m Room B is narrower than the other rooms, which show a standard size in size. Plan With its features, the space is not different from other rooms in terms of function and is used for commercial purposes. It carries. However, it is narrower than the other sections that make up the row of shops, Again, this space has a different use for commercial purposes. shows.

---

[337] **Ninety Six 2006, 129-140.**

Terrace, south wall, bedrock shaved to a certain height
It was placed on its elevation. Border wall in north-south direction
The 0.70 m wide gate on it is made of irregular stones.
has been closed.

The southern part of the room, like in space A, depends on the topographic structure.
It consists largely of bedrock that has been smoothed by trimming. Room
The remaining northern parts of the floor were filled and cut to the level of the bedrock.
It was created from elevated compressed soil.

When the original wall remains, although altered, are examined, B
It has no connection with the east-west side street in front of the room.
It has been determined that there is no. On the other hand, the north-south border that forms the border with space A
On the partition wall, it is understood that it was closed during the last use, until today.
According to the traces reached, there is an entrance with a width of 0.70 m. Accordingly, every
It is understood that the two spaces are related to each other. It is small in size and
The shop in room A of room B has a more closed plan.
It was thought to have a function like a warehouse section.

Locations A and B, located at the eastern end of the row of shops, are original construction.
They were planned as a single shop connected to each other. room A
As can be understood from the coins found in cistern A, they served throughout the
Hellenistic Period. B.C. Along with other venues in the middle of the 2nd century
Its walls are covered with frescoes. As can be understood from the filling of the cistern A and the
ground contexts, it dates back to B.C. It was subjected to destruction in the early 1st century and its walls were destroyed.
It was renovated during the Hellenistic early Roman period. It was closed in the mid-1st century AD
Neither venue was used again.

Fourth Terrace Shop Row Rooms C and D

These two shops constitute the second shop in the eastern part of the building complex.
The spaces are connected to each other. With this feature, rooms A and B can be placed together.
They are similar to the shop they created. In both places, the building
Like the other parts, they have a quadrangular plan. However, with dimensions of 4.5 x 2.75 m and 4.5 x 2 m

They are smaller than other rooms. The shop here is limited to the shop groups formed by rooms A-B in the east and EG in the west338 .

Terrace- south wall is the same in this section as well, without any interruption. continues in the structure. North-exterior and intermediate walls in the original construction phase It was built isodomically. The ground is made of compressed soil on bedrock has been created. The bedrock on which the terrace is located was broken and broken at the point where D space is located. It deepens and here it is structurally divided into two. Due to this break The rock gets deeper. Accordingly, the bedrock is closer to the surface, Unlike other places, a strong filling was applied in this section.

It is located on the partition wall that separates the two spaces that make up the store. A 0.80 m wide entrance provides the interconnection. On the other hand The larger one, C, has a connection with the side street right in front of the venue. There is no. The only connection of this double group with the street is to the north of space D. It is the 0.90 m wide entrance on the outer wall. 1st shop of the building complex Unlike the group of EU venues that form the The connection was provided from the small room.

Originally with side and intermediate walls built isodomically from rectogonal stones. The north-outer wall, in this part of the building, is largely more irregular, in places It was rebuilt on the same foundations with tile and ceramic additives. The foundation prepared especially for the original isodomic wall on the side wall of space D It is still clearly visible below the late wall.

Until the last use phase of the shop row, without losing its commercial feature This dual store continued its function. The building ceased to be used and MS These are strong traces of the great fire in Kap Krio, dated to the mid-5th century. It is clearly visible in both places.

Parts of storage containers located in the fire layer in Place D, It suggests that this section constitutes the warehouse of the shop. At Place C Again, a marble weight taken out of the fire layer destroyed this part of the building. clearly shows its commercial function.

---

[338] **Ninety Six 2006, 147-150.**

Especially marble commercial weights and marble countertops and table legs are directly They are considered as finds related to commercial life. southwest of the room The large storage container placed upside down in the corner is another interesting feature. It is considered as a find.

At the same time, the concentration of storage containers in this section is really It shows that the place was used as a warehouse section of the shop.

Fourth Terrace Shop Row EFG Rooms

These three spaces, which correspond to the middle part of the building complex, also constitute approximately 1/3 of the shop row in terms of width339 . Except for the polygonal terrace wall in the south, the other walls were largely destroyed. Although, according to the remaining foundation traces, it was originally 4 x 5 m in all three places. It has been determined that it has the following dimensions. It has a quadrangular plan, equal dimensions and each other. These three spaces lined up together with the other rooms in the complex. They do. As independent shops during the original construction phase This planned three-space building complex may sometimes be used during the long usage phase. are combined or separated.

The original north-south partition walls that distinguish all three rooms from each other are the foundations. has been removed to its level or destroyed. However, according to the foundation remains, this The walls are 0.70 m wide. Prepared by lightly carving into the main rock placed in slots, intermediate walls are small and rectangular, gray-blue hard They were built from limestone in an isodomic style.

In the line in front of these three spaces, the northern outer wall is almost the foundation. has been destroyed to the level of However, on which the wall sits and the bedrock The foundation slots carved on it are clearly visible. In this way The line and width of the wall in front of the spaces are determined. They also show plan features, better protected rooms 'during the shop' and In light of similar structures, it is certain that all three spaces originally had doors opening to the east-west street located right in front of them. Especially the neighbors of these three places Considering the rooms H and I, which are described as

---

[339] Ninety Six 2006, 151-161.

The passages providing the connection coincide with the middle parts of the walls and are 0.90 m
It is understood that they are wide. According to the rows of stones preserved at the foundation level
The northern outer wall, like the intermediate walls, is made of gray-blue hard limestone cut in a rectangular shape.
It is knitted in an isodomic style. However, the limestones that make up the northern wall are
It was cut larger than the walls.

Although the connections of the places with the side street right in front of them can be determined,
There is no information about whether there was any intermediate passage between these three rooms in the original.
no data available. Terrace-south wall in these parts of the shop row
It has been preserved to a height of approximately 2 m.

As with the other rooms in the complex, these three spaces are largely
by trimming and flattening the natural main rock block on which the terrace is located.
placed in the created area. The rocks are higher in this part of the terrace.
and since it covers more area, especially in a large part of E and F spaces
The ground consists of bedrock. Walking on the smoothed bedrock ground and
Abrasion and slipperiness that occur due to use are more common in these places.
is clearly observed. A hole that occurs due to topography
The elevation difference was eliminated by filling the areas with compressed soil.

The polygonal terrace wall, the intermediate walls built in the isodomic style, and the northern
outer wall are dated back to B.C. in terms of construction technique and style. It is dated to the 2nd half of the 4th century.
A small number of Attic Black Glazed kantharos and bowl sherds found in the filling made in
the hollow areas where the main rock block is low are also dated back to B.C. 2nd century of the 4th century
belongs to half. Consisting of rooms of equal size, rectangular plan and lined up next to each other.
These spaces of the complex have also been part of the 'shop row' since the original construction phase.
is a part of it. Although it continues its commercial function, in places,
Very effective and important changes have been made in terms of architecture.

Large storage containers, marble and metal trade weights and
Thanks to the bronze scales, it also operated as a shop during its last use.
The definitive structure dates back to the first half of the 5th century AD, again in the light of these materials.
dated.

Amphoras, large storage containers and chambers related to their end use
materials have been found. Some of the materials in question are produced in-situ.
While some of them are detected, some of them are located due to the reasons mentioned above.

has changed. Containers and other objects, both complete and integral, with the 'Hellenistic Layer' finds partly on the surface and partly below ground. The most important group of finds were Amphoras and storage containers. constitutes. Mostly compacted soil where they fell during a fire lying on their sides on the ground or leaning on each other have been found. Large storage containers and amphoras placed in corners It is placed directly on the floor without any shelving system.

Unlike other rooms, room F had a large amount of glass containers and unprocessed glassware. The discovery of glass nuggets gives some ideas about the function of the shop. offers. Density of bottles and amphoriskos among glass finds constitutes. Accordingly, in such closed containers, valuable oil, perfume, It comes to mind that cosmetics or medical liquid products are traded. terrace structure The occurrence of such lumps of unprocessed glass, although not for the late Roman and early It is an important document regarding the existence of glass production and industry in Knidos during the Byzantine Period340 .

In Room F, the group of marble countertop pieces and glass vessels Two bronze scales, one small and the other large, were found inside. The larger one weighs approximately 26 kilograms, according to the markings on it. It can measure up to . The smaller one is used for weighing lighter items. used. Located right next to this group is a bronze piece with a wire handle. The bowl is a measuring cup associated with bronze scales. This measuring cup with its small size 200 ml. liquid or 250 gr. It can be used to weigh granular objects. This In its shape, the measuring bowl is used to hold liquids stored in said glass bottles or amphoriskos. should have been used in the measurement.

In this group, one is large and protruding and the other is small pyramidal. shaped marble commercial weights are also stored in large storage containers It was used to weigh larger objects.

In Room F, marble countertops, glass containers and other commercial objects It is on the ground or attached to the ground right next to the group it forms.

---

[340] **Özgümüÿ 2000, 63, Fig. 44.**

15 bronze coins were identified. Some of the coins are from pieces of marble countertops.
It was found in gold.

They are stacked on top of each other in the southwestern corner of Place E.
The 20 lead net weights found can be mentioned as other important find items.
The net weights in the corner of the room were most likely the shopkeeper's or
It relates to the private use of personnel. However, there is no trace of the network.
It is not seen. Again, in room F, there are 5 pieces right next to and around the counter.
More folded lead mesh weight was found. The 5 lead weight in question is E
Unlike the weights that are grouped together in the room, this group is quite
It is noteworthy that it is located far away, next to commercial weight measuring instruments. Probably
This 5-lead folded mesh weight has also been used as a commercial measuring tool. But this
It is not possible to make a definitive judgment on the subject other than the proximity of the find site.
It is not.

Storage containers, glass bottles, weight measuring instruments, marble countertops and
The coins clearly reveal the commercial purpose of the place.

Fourth Terrace Shop Row Rooms H and I

As a commercial building in its original construction phase and final use phase
The last group at the western end of the building complex on the 4th used terrace consists of
spaces H and I[341]. These two spaces are shops formed by E-G rooms in the east.
group, while a staircase that has not yet been unearthed in the west
The street is located. In the north, the East-West street continues.

In general, it is different from other places that make up the row of shops.
They do not show any features. In both rooms, there are simple rooms measuring 4 x 5 m inside.
They have a quadrangular plan. From the original construction phase of the complex, these two rooms
No major changes have been made to the plan features. Each
The two spaces are located immediately with 0.90 m wide entrances located on the northern outer wall.
It has a simple quadrangular plan and opens to the east-west side street in front of them.
are shops. The floors of the rooms are made of leveled bedrock and compressed soil.
has been created.

---

[341] **Ninety Six 2006, 162-165.**

Built in polygonal style, terrace - south and west - outer walls, shop
It is better preserved in this part of its sequence. Both walls are connected to each other
They organically meet at the southwest corner and form the boundary of the building.
While the south and west walls were preserved higher in this part of the terrace, this
The northern-outer wall, which continues isodomically in the section, is almost the foundation
has been destroyed to the level of In addition, there is a difference between the two spaces that distinguishes them from each other.
The wall could only be preserved up to a level of 0.50 m from the foundation. The structure is tall
During the usage process, there is no structural damage on the external walls in this part of the terrace.
no changes were made. On the other hand, the partition wall separating two spaces
Some changes have been made to it.

Foundations of the north-south partition wall separating the two spaces from each other
When examined, it is seen that the foundation blocking of the wall built in isodomic tar continues
uninterrupted. Accordingly, B.C. With the construction of the terrace in the 2nd half of the 4th century
However, in this part of the row of shops, spaces H and I are independent from each other,
It was planned as two different shops opening onto the side street in front of them. But late
It occurred in the building complex in the Hellenistic period or in the mid-1st century AD.
During some changes, a 0.80 m wide structure was opened to the north-south wall.
The two spaces are connected to each other by a door. At the point where the doorway is located,
the partition wall built in Isodomic style is decorated with tiles and ceramic pieces.
A connection made of irregular stones can be seen. Lime mortar and irregular
This change was made in the Late Hellenistic or Roman period.
shows that it is happening. However, with this interconnection, the shops can be functionally
There is no definitive evidence that they are combined. However, with this connection
A new group of two venues was created at the western end of the row of shops
It is open.

The door and mortar that provided the connection between two spaces in the Late Antique period
It was closed with a wall built of irregular stones with additives. So two
The connection between the rooms was cut once again and they became independent shops.
They were brought. On the other hand, in the late antique period, the floor of the space was again compressed.
Approximately 0.30 m from the original floor created from soil and flattened bedrock
has been raised. The newly created floor matches the white plaster covering the walls. Especially
as in spaces E and F, the white plaster is slightly

It is rotated concavely and merges with the compressed soil ground. This situation It shows that the plaster and the late period floor were planned and arranged together.

In the southwest corner of Room I, there is a large wall placed upside down on the ground. The storage door was found in pieces. Right next to this, there are two large The basin was placed. Only the bottom parts of these large storage containers could be preserved. Again, five amphorae were placed towards the terrace-south wall of the room. has been found. The amphoras that have survived in pieces are in the back of the room. They are positioned in a row. These finds are in the final use phase, It shows that the back part of the room was used for storage purposes. of the room Hooks and chain pieces belonging to a bronze scale were found close to the gate. However, along with the scale and chain parts, a lead pyramidal weight and two A folded net weight made of lead was also found. Lead folded net weights where it is used as a commercial weight, as in the E-G shop. is considered. Again, at a point close to the door, there is a bronze statue destroyed by fire. coins have been found. Storage containers and containers located at the back of the venue Amphoras, scales and weights clearly indicate the commercial function of the building. shows.

4.1.4.3. Workshops

Another structure seen within the port areas, especially behind the docks
The group consists of workshops. Within the building complex in Kap Krio, the workshops are
located on the 3rd terrace342 (Pl. 27.2; Pl. 31.1-2). Parallel to the Trade Port
The extending terrace measures approximately 10 x 34 m. Two separate workshops were unearthed
on the 3rd terrace, one in the east of the terrace and the other in the west of the terrace343 .

Topographic features and the fact that the area was used as agricultural land until recently
Due to its use, terrace walls and building ruins were significantly damaged.
has happened. However, the terrace measuring 10 m in the north-south direction is especially
in the middle part and the western end, up to 1-2.5 m due to reasons such as earthquakes and erosion.
shifted in width.

East-west side street and row of shops between the two terraces, south of the terrace
There are streets with stairs to the east and west. North
There is the second terrace and the row of shops there.

Due to its location and structure, the terrace dates back to B.C. It was carried out in the 2nd half of the 4th century
It was built within the scope of major construction activities. The rocks that make up the island
Since it is steeper and deeper in this section, the terrace is largely located in the 3rd and
It was placed on the filling made between the walls of the 4th terrace. terrace walls
The area between the areas is filled with quite large rock blocks and soil and the elevation difference is reduced.
has been resolved. Both directly through this fill layer and into the 2nd layer where it flows.
The large amount of Attic black glazed ceramic materials and coarse materials found on the terrace
Fragments of vessels strengthen the claim that the terraces were formed at least in the late Classical
Period. B.C. This fill layer, dated to the 4th century, covers the terraces.
It provides important data regarding planning.

Due to the damage caused, the walls are only at the foundation level.
could be preserved. However, the south wall of the terrace is better than the side and interior partition walls.
It is in good condition and is 1.5 m high in places. On the 4th terrace where the row of shops is located
As is, the south wall of the terrace was built polygonally. In the construction of the wall
Hard gray-blue limestone, blocks with polygonal edges, no different from the upper terrace.

---

[342] **Özgan 1995c, 298-300, Plan 1, Fig. 1-2.**

[343] **Ninety Six 2006, 79-110.**

used. There is no difference between the terrace walls in terms of both style and technique. There is no difference. Again, at the points where it remains high, it is shaved and corrected. The bedrock forms part of the terrace wall. Terrace wall seamless It continues throughout the entire terrace.

The east and west side walls of the terrace are made of large gray rectogonal limestone. It was built from blocks in isodomic style. Walls arranged in similar style This shows that both terraces were built with the same planning. Venues The lowest row of the walls that form the walls, just like the upper terrace, are sometimes covered with bedrock. They were placed in slots created by carving. Exterior faces of walls It is ejaculated. The masonry technique is similar to the walls surrounding the city and the terrace walls on the mainland344. The northern part of the terrace is largely destroyed. Therefore, there is no data regarding the northern wall.

As with other terraces, B.C. The building was built in the mid-4th century Its walls were built polygonally in the south and isodomically on the sides. Order Despite their differences, the walls show harmony and unity with each other. Accordingly, there is no period difference.

Although the partition walls were destroyed almost to the foundation level, they were still preserved in some places. Thanks to the parts that can be protected up to a height of 0.40 m and the foundation traces, the partition walls knitting technique can be understood. The structure on the terrace according to the existing walls The internal partitions forming the sections are smaller in size, grey-blue, rectogonal. It was built from limestone.

On the outer side walls, at both ends, 1.10 m wide from the east and There are entrances from the west that provide access to the terrace. At the east end, from the terrace floor A staircase consisting of 4 rows, 1.80 m wide, going down 1.5 m was determined. has been made. Waste water from the tank inside the building along with the stairs The canal merges with the central canal right next to the terrace. At the western end, again with the central duct system coming out of the building and located on the street with stairs. Merging channels were detected.

In the building complex, there are two rooms in the east, one at the front and one at the back; 4 places lined up side by side in the west were determined (these places are arranged from west to east).

---

[344] **Tirpan 1990, 439.**

(coded from A to F). Thus, there are 6 sections distinguished from each other on the terrace.
There is a venue. Outside these rooms, there are bedrock rocks to the east and west of the terrace.
There are two cisterns built by fitting into the natural crack on it. Necessary
Both the architectural features and the findings indicate that the building complex on the 3rd terrace
dates back to a wide period from the 2nd half of the 4th century BC, when it was built, to the middle of the 5th century AD.
It shows that it was used during the period.

Workshop I

Workshop I, located in the west on the 3rd terrace, consists of 3 rooms. rooms
Like the shops, it generally has a quadrangular plan, almost square. In room A
The relatively preserved walls in rooms B and C were largely destroyed. Walls
Although they are largely destroyed, the size of the rooms can be seen from the southern parts, with the terrace wall.
from the joining points, foundations and traces of plaster that have survived to the present day.
can be determined. There is a staircase to the workshop number I, which is formed by these three spaces.
from the street, with a 1.10 m wide entrance located to the west of room A.
is entered.

Room A measures 5.5 x 8 m and is located to the west of the 3rd terrace. Both
The wall forming the western border of both room A and the terrace is 0.90 m wide.
The wall, which was quite damaged, was built from properly cut rectangular blocks. This
From the foundation traces on the wall, it was determined that there was a 1.10 m wide entrance here.
has been made.

Room B and room A are surrounded by a 7 m long wall in the north-south direction.
separates. The partition wall separating spaces C and B is almost
has been completely destroyed. From the wall to the present day, only the south terrace wall and
In the joining part, a foundation slot prepared for the bedrock remains. These little scars
With this help, it can be understood that room B is 5.80 m wide.

The third room to the west of the terrace is room C. Distinguish the space from other rooms
The partition walls have been largely destroyed. However, behind the walls
From the remaining foundation traces, it was determined that room C was 5 m wide.

Workshop II

It is located in the eastern part of the 3rd terrace. The entrance of the workshop is on the east wall It is located on the same axis and in the same dimensions as the western entrance. This entrance is east two spaces located side by side (locations E and F) is opening. Immediately after the entrance, the floor is covered with rubble stone and a mortar with ceramic additives. slightly raised.

The south entrance of the terrace is called 'L' room F, measuring 6 x 9.5 m. It opens into a shaped room. The southern part of the room, 3 m in the north-south direction, It is in the shape of a long, narrow rectangle with a width of 12.5 m in the east-west direction. Moreover The existing foundation traces and wall remains on the floor of the room reveal the location of the space. It has been understood that it is divided into three parts for use. These sections It has various functions within the space.

Room E is seen as the second room at the entrance from the east. East West The north-south width of the 7 m wide space in the direction of the terrace is It has not been fully identified since its part was largely destroyed. But the terrace Considering that the room continues throughout, the space should be 7 x 5.20 m in size. The only connection to the room is from section F3 of space F. southeast of the room A 1 m wide entrance located in the corner connects the two spaces. The connection with room D located to the west of this room, the partition wall is largely based on the foundation. It is not clear that it has been damaged to its level.

Considering its direct connection with Place F, these two rooms are one It is understood that they form a group and form a part of the workshop. However due to the lack of an architectural division and the insufficient finds. There is no clear finding regarding the function of the space within the workshop.

In the rooms forming the workshops at both ends of the 3rd terrace, there are printing Parts of a lever and stone-weighted press were identified. Apart from this, both workshops boats in the rooms, channels connecting the boats, heating system and water There are cisterns to meet your needs. These regulations are based on production techniques It brings to mind the production of olive oil or wine, which are similar to each other. However It is one of the indispensable elements of the olive oil production stage in places. The absence of a trapetum mechanism indicates the possibility of olive oil production.

It weakens. This suggests that the workshops were areas where wine was produced. brings it to the plan.

The necessary arrangements for wine production are made in the workshops on the 3rd terrace. unearthed vat, press, step configuration, heating system etc. Compatible with the elements. Therefore, all technical aspects related to wine production The elements are located in the Kap Krio 3rd terrace complex. Also Kap Krio's top When associated with the vine terraces on the slopes, it supports the idea that Kap Krio workshops may be related to wine production345. On both workshops The technical elements used in the various stages of wine production are almost complete. could be identified as . Knidos, found in many centers in the Mediterranean basin Origin amphoras and statements from ancient sources show that the city was one of the important wine export centers in ancient times346. However, keep in mind the dimensions Considering that the production in the workshops was a famous wine center of ancient times, It is difficult to associate the city of Knidos with export products. However this The production in the workshops is related to the immediate environment and responds to a limited domestic market. It is thought that it can give.

Another important ancient monument containing a boat, cistern and heating system. The industry consists of seafood processing workshops. Wine and oil are normal It was the product of the villa economy. Fishing is an industry that requires more expertise. and has developed as a separate branch.

The divisions identified in the Kap Krio 3rd terrace workshops are fish and seafood. It shows close similarities with the elements used in the workshops where the products are processed. This situation is especially evident in ÿÿlik I, located in the west. workshop

---

[345] Agricultural activities have a great potential on the terraces located in large areas outside the ancient city. continued. On the upper slopes of Kap Krio, irregular blocks 1-1.5 m wide in places, Agricultural activities were carried out on gradual terraces built without mortar (Diler 1995, 44). Accordingly, it has a long and narrow appearance in different terracing techniques. The gradual terrace configuration is suitable for vine cultivation rather than olives and grains. is considered (Wells – Lohmann 1992, 123). Thus, the agricultural terraces in Kap Krio were primarily It is obvious that it was used for growing vines.

[346] Grace 1961, 13; Doÿer 1991, 92.

The smaller scale vessel in I is identical to those used in this type of industry[347] .
On the other hand, the wall separating spaces A and B in Workplace I
The main duct located right next to the heating system and in the workshop
Remains of many shellfish and fish bones found in the
has been detected.

It is located in ÿÿlik II, located on the western edge of the terrace, and separates the two spaces from each other.
Examples of small boat fish farms on the separating wall are close by.
On the other hand, around the heating system in the south of place B and the waste channel
The large amount of fish bones, shellfish remains and small amounts of
A large number of hunting equipment, at least in part of this workshop, were used to produce fish products.
indicates that it has been processed. Some fishing-related equipment was also found in the same
areas[348] .

Because the walls of the boats in both workshops were not protected
Their height could not be determined. For this reason, the capacities of the workshops are also
cannot be determined. However, considering the high capacity workshops spread over a large
area[349], Kap Krio workshops meet the needs on a smaller scale.
It is understood that it will give

As a result, both their relations with the agricultural activities on the upper terraces and
their technical equipment for production and the small number of small finds

With its characteristics, wine and wine production is produced in the two workshops in question, on a limited scale and directly for the domestic market.
fish products were processed together. However, even if not in a professional sense, Kap Krio 3.
Low capacity production with traditional techniques in terrace workshops
has been carried out.

Located in the building complex directly connected to the Trade Port, this

The workshops were located in the city of Knidos, the famous wine center of ancient times, with their export products.
It is difficult to relate. For this reason, wine and seafood produced in workshops
probably used by sailors coming to the heavily used Trade Port

It can be said that there are small workshops for this purpose. As a matter of fact, one in the Isola Sacra Necropolis

---

[347] Peacock–Williams 1991, 39.

[348] Ninety-six 2006, 98.

[349] Mattingly 1985, 42.

In the relief found in the tomb, boats in the Port of Ostia, the lighthouse and On the right of the scene, a bar, two figures drinking at the bar and an officer serving them are depicted350. This relief also shows that there were such places around the port, perhaps serving only sailors351. Cap Krio 3.

The workshops on the terrace are aimed at both the domestic market and the buildings around the port.

It was used to meet their needs.

---

[350] **Meiggs 1973, Pl. XXVI, b.**

[351] **Oleson 1988, 147.**

4.1.4.4. cisterns

Knidos, which has a sloping topography, has both land structure and fresh water. Fresh water is available on both the mainland and Kap Krio due to the lack of springs. There are many cisterns to meet the needs. Strabo (XVI. 656), He states that most of the people of Knidos live on the island. This statement of Strabo has also been confirmed by excavations352. Therefore, in Kap Krio Most of the cisterns meet the needs of the people. However, Cap In Krio, the cisterns in the harbor structures behind the docks were used in the workshops. and while meeting the fresh water needs of the shops, the trade coming to the port It also met the needs of the ship crews on its ships.

In Kap Krio, in the workshops on the 4th terrace in the area where excavations have been completed. 2, and 1 large sized one in room A in the shop row on the 4th terrace. The cistern was uncovered.

Cistern 1

Cistern A located in Room F in Workshop 2 on the 3rd terrace It is named. It is located right in front of the east-west wall of room A. (Pl. 32.1).

3rd terrace, two main rocks continuing parallel to the sea from the east and west It was built on the area formed by the block. These two main rock blocks The natural crack formed at the junction formed the basic structure of cistern A. The natural gap formed by two main rock blocks narrowly towards the west. It extends and expands as it deepens. While creating the cistern, this natural space was used, except for the droplet at the deepest point, No carving or expansion was done. Only the mouth of the cistern It was created by knitting.

The mouth of the cistern measures 57x57 cm and is 0.50 m deep. Cistern The southern edge of the rim is made of thin terracotta, 5 cm thick and measuring 15x25 cm. It is made of plate-shaped bricks. From the end of the mouth

---

[352] Ninety-six 2006, 34.

the entire surface of the bedrock, without being subjected to any carving or expansion, It is covered with hard, dense and waterproof plaster with an average thickness of 2 cm. Sarnÿç, F It has a depth of 4.22 m from the floor of the venue.

Cistern 2

The cistern located in Room A in Workshop I on the 3rd terrace, A and B In front of the partition wall separating the room from each other, the boat inside the room It was found right next to it (Pl. 32.2). The mouth part is square with dimensions of 0.67x0.78 m It has the form. The cistern was fitted into a natural crack in the bedrock and has a distinct form. does not contain. The interior of the cistern, which is 5.5 m deep from the floor of the room, is covered with a 0.02 m thick reddish, waterproof plaster. Made of gray, square limestone blocks It was found with its cover.

Cistern 3

One of the spaces of the building complex on the 4th terrace, which was used as a row of shops There is a cistern only in room A. The cistern is located in the northeast corner of the room. (Pl. 32.3-4). The mouth part is made of local limestone blocks. has been created. The cistern mouth is in the form of an irregular square with external dimensions of 0.86 x 0.80 m. The inner part is an irregular circle with a diameter of 0.60-0.70 m. organized as follows.

Except for the rim, the cistern was formed entirely by carving the bedrock. has been brought. Straight from the cistern mouth to a depth of 0.75 m, 0.60-0.70 m The cistern, which continues in a cylindrical shape in diameter, expands downwards and It has a pear-shaped form ending in an oval. In line with the bottom of the mouth It is 3.25 m deep with a small droplet carved into it. towards the bottom The expanding cistern is widest in the middle and lower parts, north-south In this direction, it reaches a width of 2.5-2.75 m. This measurement is the largest size of the cistern. While forming the points, it is 2 m wide in the east-west direction. Terrace During the construction of 'A Cistern' located at the easternmost end of the structure, the Shop The fact that it was carved without exceeding the eastern border of the complex means that the cistern is located on the terrace. It shows that it coincides with the regulation.

Except for the mouth of the cistern, it contains hard, firm and approximately 1.5-2 cm thick water.

It is covered with an impermeable plaster.

4.1.5. piers

Within the Trade Port, one is on the isthmus and the other is on the mainland part of the port. There are ruins of two piers in front of the Harbor Theater353 .

The pier located on the isthmus allows ships to anchor easily. It was built in the shape of a saw blade for the purpose of The superstructure of the pier, whose foundation level was preserved, was completely dismantled. The infrastructure of the pier is conglomerate and consists of limestone blocks (Pl. 33.1). The most important of ancient times Due to sandblasting, one of the problems, a part of the pier remained under a layer of sand354. The modern building and a part of it on land are located in this area. It continues under the fill where the building is located (Pl. 33.2). This is negative Due to the conditions, measurements of the pier could not be taken.

The situation of the pier in front of the Harbor Theater is similar to the pier on the isthmus. Today, only a small part of it can be seen underwater (Pl. 34.1). In its current state, its width is 5.5 m and its length is 22 meters. Although Although not much remains of the pier can be seen today, it was built in the mid-19th century. In the drawings of Newton, who carried out the first excavations in Knidos, the pier appears to be largely intact355 (Pl. 34. 2). The drawings in question are hand-drawn. There are question marks regarding whether the pier existed at that time as seen in the drawing. It creates. However, in other drawings of Knidos made by Newton and his team, especially those showing the southern breakwater356 **and the Military Port357 The drawings are very realistic and very close to their current situation. The fact that they are depicted suggests that the pier may have been drawn with a realistic approach.**

---

[353] **Özgan 1992, 173.**

[354] **This area is now covered with sand and part of the pier ruins can be seen. Culture The General Directorate of Heritage and Museums issues a work permit for physical intervention in cultural assets in the area. He gave it on the condition that it was not present. In this context, only the visible parts of the ruins are examined. evaluation could be made.**

[355] **Newton 1863, Pl. LI.**

[356] **Newton 1863, Pl. LI.**

[357] **Newton 1863, Pl. LII.**

It makes you think. The pier, underwater ruins and Newton's drawings
Apparently, it was built from quadrangular blocks.

These two piers identified in the Trade Port have more than a commercial function.
It should be planned for passengers and those who come to visit the city. As a matter of fact, trade
The dock areas where the ships will dock are located on the slopes of the port overlooking Kap Krio.
is taking. There is no dock structure in the parts of the port facing the mainland.
There is no. Knidos, located at the tip of a long peninsula
Even today, land transportation is quite difficult. For this reason, in ancient times, Knidos
Those who came to visit or the people of Knidos must have traveled by sea.
A pier that people can use for their sea travels.
There is no doubt that they will need it. In this case, especially in the mainland and port
It is natural to have piers in the section where there are no walls. Kap Krio of the city
Since there are only public living spaces and commercial buildings in this part, visitors to
the city should have gone directly to the mainland instead of Kap Krio. Especially
It is also known that many visitors came to Knidos after Praxiteles' famous statue of
Aphrodite was purchased by the people of Knidos358. From these visits
Pseudo Lucian, who quotes one of them, narrates in his work "Erotes" how two friends
who came to Knidos to see the statue of Aphrodite went from the port to the temple359. This
The first stop on the way out was the stoa on the terrace of Dionysus. This brings to mind Dionysus from the pier.
It provides a direct connection to the terrace. As a matter of fact, the Soldier of the same terrace
There is a stepped entrance on the west side facing the Port, at the intersection of the
terrace with Liman Street360 .

Looking at the existing ruins, it is clear that the original heights of the piers are
It is not possible to determine. In ancient times, passengers and merchant ships
Considering that they travel, the height of both piers must be at least
It should be as high as the height of their area. In this case, the tide ratio is less
The minimum requirement for dock heights in the Mediterranean basin is 1 m.
It should be valid for piers.

---

[358] Bruns-Özgan 2002, 14-16.

[359] Bruns-Özgan 2002, 45.

[360] Özgan 2005, 239-240.

4.1.6. Rock Niches Around the Harbor

It was built in the rocky area where the southern breakwater of the Trade Port is located. During the studies, two niches opened on the smoothed natural rock were identified. has been made. One of the niches is open in the southeast of the breakwater outside the harbor basin. While the other niche is facing the sea, there is a harbor to the southwest of the breakwater. It was opened overlooking the basin.

Niche 1

Southeast of the south breakwater, outside the harbor basin, the eastern open It is opened facing the sea. This area was also used as a quarry in the construction of the breakwater. It is a rocky area used. The south-facing face of the niche rocky area was smoothed. has been created. The surface of the rock in front of the niche was smoothed and constructed in two stages. regulated (Pl. 35.1-2; Pl. 36.1-4). The first stage is 2.30 m wide. From here, we move on to the second stage. The height between the two levels is 0.30 meters. The second stage is 0.40 m wide. The niche is natural 1 m above the second level It was opened on the shaved surface of the rock. The width of the niche, whose height is 0.62 m, is It varies in the middle and upper parts. The width at the bottom is 0.40 m in the middle It is 0.30 m and 0.34 meters at the top. Niche depth is 0.13 meters. 0.20 in niche There is a stele slot measuring x 0.06 m.

Niche 2

It was created by trimming and smoothing the natural rock, in the southwest of the south breakwater, facing the harbor basin (Pl. 37.1). Niche in the front There is no grading as in 1. Niÿ 2, which shows a smoother form While its height is 0.65 m, its lower width is 0.50 m and its upper width is 0.45 meters.

Rock niches are often associated with the goddess Kybele. Many in Anatolia The rock niches in the center and the sacred temples dedicated to the goddess Kybele around it. areas are included. Apart from Kybele, there were also cult areas dedicated to the goddess Demeter. It is known that there are rock niches. One of the sacred areas dedicated to Demeter is located in Knidos361. However, around the south breakwater of the Trade Port It is correct to associate the rock niches with the goddess Kybele or Demeter. It won't happen. It is a large building located on one of the upper terraces in the mainland part of the city.

---

[361] **Newton 1863, 375-426; Bruns-Özgan 2002, 95-98.**

While there was a sacred area on the shores of the Trade Port in the name of Demeter or Kybele There is no need for these niches dug into the rocks. Definitely cult around the harbor It would be more accurate to associate these purpose-built niches with either trade or the sea. It will happen. However, the location of the niches within the port suggests that they would be related to the sea rather than trade. Especially since Niš 1 is completely open to the sea. The fact that it is arranged in a visible way increases this possibility.

It is a city completely dependent on maritime culture and ports.

When we look at the public buildings of Knidos, there are many temples on terraces on top of each other. As far as we know from both inscriptions and archaeological excavations, There is no temple dedicated to Poseidon. Even today for sailors Kap Krio, which is an important point, has a much more important place in ancient maritime. It should have a place. It is one of the capes of equal importance for sailors in Anatolia. Although there is no settlement in Kap Monodendri near Didyma. However, there is an altar dedicated to Poseidon dated to the Archaic Period362. Located in continental Greece and an important point for sailors There is also a large temple in Kap Sunion, dating back to the Classical Period, dedicated to the god Poseidon363. It has similar topographic features and the same conditions for sailors. Poseidon worship sites in these two important examples are also in Kap Krio. This suggests that there should be a cult area for the same purpose. above too As we mentioned, such a cult area has not been identified in Knidos so far. It is thought that these niches around the south breakwater were an arrangement made for sailors and may be related to the cult of Poseidon. Especially stele nest in Niš 1 overlooking the open sea, where a cult statue was placed shows that it is.

---

[362] Gerkan 1915, 443-466.

[363] Dinsmoor 1950, 107, 169.

4.1.7. Lighthouse

Was there a lighthouse in the Trade Port of Knidos? The answer to this question It is quite difficult to answer. It is a lighthouse built in the Trade Port We do not have any data to prove that it is not. Also in ancient sources There is no mention of a lighthouse at Knidos. However, especially Cap Beacon of the towers at the top of the rocky area at the eastern end of Krio or it may have been used as a lighthouse. As a matter of fact, Knidos On the city plan prepared by the team conducting the 2nd period American excavations One of the towers, which is the continuation of the defense system in Kap Krio, is called the lighthouse364 (Pl. 37.2). However, this idea is neither expressed in the publication in question nor It is not detailed in other reports and publications of the excavators and is only on the plan. stated. Apart from this plan, there is no information regarding the existence of a lighthouse in the Trade Port. There is no data. In his study on the city walls of Knidos, McNicoll He claimed that this tower, which was claimed to be a lighthouse, could not be a lighthouse and was a part of the city wall system365 .

With the beginning of trade in the Mediterranean, beacons were used to guide sailors to a safe harbor366. These lights on the beach and on the high hills It was lit to warn sailors of dangerous waters, reefs or capes, and to indicate the entrance to ports367. Over time, the fire burning on the beach or on the hills was replaced by towers and columns368. In this way, the fire is burned higher can be seen from more distant areas. Built later Large and flashy lighthouses are generally located at the entrances of the harbours. The lighthouse on the island of Pharos in Alexandria was located at the entrance of the harbor369. The lighthouse in Ostia stood on an artificial island at the entrance of the harbor370. Another partially excavated lighthouse is located in Leptis Magna.

---

[364] **Love 1968, Fig. 2.**

[365] **McNicoll 1997, 60.**

[366] **Vann 1991, 124.**

[367] **Vann 1991, 124.**

[368] **Vermeule 1962, 76-77; Williams 1976, 75.**

[369] **Bernard–Goldvin 1995, 60-61.**

[370] **Vann 1991, 128.**

takes371. Here too, the lighthouse was built right at the entrance of the harbor372. Antique
As seen in these examples, which are the most important lighthouses of the age, lighthouses have always been
They were built at the mouth of the harbour.

Knidos, which has an important place on the Mediterranean trade routes, is also
It was also at a dangerous crossroads due to adverse winds at the time. This
Due to its features, it is a lighthouse or a sign in the Trade Port of Knidos.
It wouldn't be wrong to wait for the tower. However, as seen in important examples
Lighthouses have the function of indicating the entrance to the harbour. In this direction, the sea
The first area that comes to mind regarding the possible location of the lighthouse is the ends of the breakwaters.
It is possible. The ends of both breakwaters are underwater today. made underwater
In the studies, breakwaters were also found on the ruins of a building built at their ends.
has not been found. As a matter of fact, the breakwaters in Knidos are not breakwaters but
They do not contain any structures on them. Completely overlapping blocks
blocks located on the upper parts of the breakwaters built by agglomeration and these
Considering that the blocks are piled irregularly on the breakwater,
The possibility of any structure being built on the breakwater is extremely slim.
In this case, Kap Krio is the most suitable place for a lighthouse or signal tower.
The eastern end remains.

Number 56, located at the eastern end of Kap Krio according to McNicoll's plan
The tower was named as a lighthouse by the American excavation team. Because
It was not included in the defense system. McNicoll is the defense system of the tower
stated that it should be evaluated within However, the tower should not be connected to the
city walls373 and should be evaluated within the defense system.
It raises questions about. In this case, the tower is a dangerous cliff.
It must have been used to reveal the location of Kap Krio.
(Lev. 38.1-2). In the light of the existing ruins, it is understood that the tower was used as a lighthouse.
There isn't enough evidence to say. But at least as a signal tower
We can say that it may have been used.

---

[371] Bartoccini 1958, 59-65.

[372] Blackman 1982, Fig. 3; Vann 1991, Fig. 7.

[373] Bruns-Özgan 2002, Fig. 134.

4.1.8. Trade in Knidos374

Knidos is a city built with care and has an important place in the urban setting.
It has an important location at the intersection of the Mediterranean and the Aegean with its ports. This
With its location, it was especially important on the Eastern Mediterranean trade routes in the Ancient Period.
is at the junction point. Eastern Mediterranean trade route starts from Egypt, Levant
It follows the coasts of Anatolia and reaches the coasts of Anatolia. It follows the
southern coasts of Anatolia, via Crete, and continues to Continental Greece and then to Rome375 .
Ships following this route have to stop at many ports in Anatolia.
One of these stops is Knidos. Another trade route followed the same route.
to the southwest of Anatolia and from there to the north to the west of Anatolia.
It is a trade route that follows the coasts and reaches the Black Sea through the straits. This
A ship following the route must also stop at Knidos. It is located on the shores of
Knidos and dates back to B.C. From different dates from the 5th century to the Byzantine Period
The numerous shipwrecks clearly show how busy Knidos was on the trade routes376 .

Knidos is located at an important junction on these trade routes.
It is also an important trade centre. The city's main export commodity
is wine. It is understood from the sealed Knidos amphorae found in many centers.
It had an important wine trade from the Classical Period to the Roman period377. B.C.
Economic vitality in the Mediterranean basin in the late 4th century
It also affected Knidos and wine production increased. These are the famous wines of Knidos
It captured a significant part of the Mediterranean market during this period. Athens and Delos
The density of sealed Knidos amphorae found in important centers such as
It clearly shows the wine trade. Uncovered during excavations in the Athenian Agora

---

[374] Knidos was an important trade center in ancient times and the trade of Knidos is a research in itself.
is the subject. Since the subject of our study is "Knidos Ports", only the Trade Port is included here.
In order to convey how intensively it is used, we briefly discuss the subject of trade.
has been mentioned.

[375] Blackman 1982b, 187.

[376] Bass 1975, 33-34.

[377] Cankardeÿ-ÿenol 2006, 69-77.

65% of the 40,000 sealed amphora handles are Knidos amphorae. This rate[378]. is 61% in the sealed amphora handles unearthed in the Delos excavations379 .

The type of embossed containers produced in Knidos, called Oinophoros, which is seen in almost all Mediterranean centers except wine380, shows that Knidos dominated a large part of this market until African workshops took over the market in the early 3rd century AD381 . Pergamon383 and Korinth384, which produced similar style vessels, **lagged behind Knidos385 .**

Knidos was an important center producing amphora from the Archaic Period until the 7th century AD386. Especially B.C. In parallel with the increasing wine trade in the late 4th century, amphora production also increased387. for a long Due to its uninterrupted production, Knidos is considered the largest and most important amphora production center in Western Anatolia388. in the Mediterranean basin Knidos amphorae found in shipwrecks, coastal and inland cities support this389 .

The history of Knidos from the Archaic Period to the Roman Period. Another group of finds related to commercial activities consists of coins. M. Knidos Aphrodite and Apollo, dated to the first half of the 3rd century AD

---

[378] **Grace 1961, 12; ÿenol 2003, 37.**

[379] **Grace – Petropoulakou 1970, 281; ÿenol 2003, 37.**

[380] **Pastutmaz 2009, 29-70; Pastutmaz 2011, 97-105.**

[381] **Salomonson 1969, 7-11.**

[382] **Knidos embossed ceramics are in the embossed pot trade due to their diversity of subject and form. They have an important place especially in the 1st and 2nd centuries AD. Significant production in the same period While the trade area of the centers of Pergamon and Corinth was limited to continental Greece and the Anatolian coasts, Knidos covers production from England to the Adriatic coast, from Southern Russia to North Africa. It has a wide spread area extending to the coasts (Pastutmaz 2009, 125-126, Map 1)**

[383] **Mandel 1988, 9-97.**

[384] **Hayes 1997, 73-74.**

[385] **Ninety-six 2006, 18.**

[386] **Doÿer 1991, 92; ÿenol 2003, 34; Cankardeÿ-ÿenol 2006, 69-70.**

[387] **ÿenol 2003, 37.**

[388] **ÿenol 2003, 34.**

[389] **ÿenol 2003, 34.**

B.C. with the Knidos city coins depicted. Coinage, which has existed since the 6th century, continued during the Roman Imperial Period390. Excavations and research

All these data obtained as a result have existed since the Archaic and Classical Periods and

The trade volume of Knidos, which developed in the Hellenistic Period, was increased by the Roman Empire. It shows that it continued without interruption until the end of the 20th century.

Architectural ruins in Knidos and many centers in the Mediterranean basin

Contrary to popular belief, ceramic, oil lamp and coin finds unearthed during archaeological excavations Knidos did not lose its commercial importance in the Roman Period, on the contrary, its current shows that it has increased its wealth.

---

390 Cahn 1970.

4.2. Military Port (Western Port)

The port is located between the mainland and Kap Krio, west of the isthmus separating the two ports. In terms of its location, the "Western Port"391, its dimensions "Little Port" due to its function, the existing ruins and Strabo's It was named "Military Port" considering the transfers (Pl. 39.1-2).

The mainland is in the north of the port, Kap Krio is in the south, the mainland and Cape are in the east. The isthmus connecting Krio is located. The west of the port is from the mainland to Cape Town. It is bordered by a breakwater extending towards Krio. of the harbor basin On both sides of the entrance, which is narrowed by a breakwater in the southwest corner, there are two There is a quadrangular tower each.

The port basin covers an area of approximately 20,560 m². As far as we know from Strabo's (Strab. It was used as a military port.

The bottom of the harbor basin is the channel connecting both harbours. Due to its closure, today it is largely covered with a layer of mud. However, small boats can still move within the harbour. Trade The Military Port, which is shallower than the Port, is approximately 2 m today. It has depth. Although it is shallower than the Trade Port, this depth is sufficient for ancient ships. Especially for warships, they can also go into very deep waters. There is no need.

The entrance part of the port and the port basin are as in the Trade Port. It is surrounded by walls. Unlike commercial ports, military ports have docks and

---

[391] It is also referred to as “North Port” in some publications.

[392] A trireme is defined as a warship with three rows of oars. Triremes B.C. It is thought to have emerged in Corinth in the 7th century (Casson 2002, 62-82). B.C. In the early 5th century, the sea in the Aegean The ongoing struggle for supremacy of the forces led to one of the largest warships of ancient times. It enabled the development of triremes (Blackman 2008, 657). Regarding triremes, see also Cook – Richardson 1905, 371-377; Blackman 1990, 35-51; Casson 1995, 241-245; Morrison et al. 2000.

The areas covered by the piers are less393. Available at Knidos Military Port
When the ruins were examined, such an area could not be identified.

Unlike commercial ports, there are structures expected in military ports.
One of them is ship shelters. However, there is a ship shelter in Knidos.
The regulation has not yet been identified. Lighthouses at the entrances of harbor basins
It is an important port structure. In the southwest corner of the breakwater at the entrance of the harbor
The round tower was built by some researchers as a lighthouse.
has been interpreted.

4.2.1. Mole

Unlike the wide gap between the mainland and Kap Krio in the Trade Port
In the area where the Military Port is located, the mouth of the bay between the mainland and Kap Krio
The section is not very wide and is approximately 120 meters. However, strong west winds
Because of this bay is considered a safe harbor without making any arrangements.
It is not possible to use. Protecting the bay from both west winds and waves
and control the entrance to the harbor by creating a defense line in front of the harbor basin.
The entrance part extends from the mainland towards Kap Krio in order to take it under
A small harbor was created by narrowing it with a breakwater (Pl. 40.1-2; Pl.
41.1-2).

The beginning of the breakwaters in the Trade Port on the mainland and Kap Krio
While its places can be clearly seen, the Military Harbor breakwater is now connected to the mainland.
Since it becomes a whole, its starting point is not exactly clear. Mainland
Regarding the starting point of the breakwater, there are only archaeological remains and
A suggestion can be made by following the surface shapes. Mainland with breakwater
The most important archaeological data regarding the connection is the city walls in the west of the city.
It is an opening opening directly to the sea (Pl. 40.1; Pl. 42.1). city wall
When this arrangement inside is examined, it turns inward on both edges.
It is profiled and there are slots on the floor of this profiled area.
has been seen. This arrangement means that this opening on the wall can be closed when necessary.

---

[393] **Blackman 1982b, 204.**

It shows that there is an area394. In the north of this area, on the mainland, to the sea
There is a defense tower built on a small cape that continues towards 395. The starting point of
this tower breakwater built on the mainland
This shows that there cannot be a north of this opening. on the wall
Looking at the area where the opening is located, it is seen that the coastline of the Military Port on the mainland is visible.
It appears to be exactly the opposite. Straight line of the port's coastline on the mainland
Considering its progress, the mainland should end north of this opening. Wall
The tower built on the mainland, to the north of the opening above it, is also
It supports the idea. In this case, the coastline and western walls on the mainland
The area where the gate is located can be considered as the starting point of the breakwater.
According to this suggestion, the length of the breakwater, whose width is 44 m, should be 88 m.

The seabed rising westward from the entrance of the Trade Port is at the isthmus
and it has a shallower structure at the entrance of the military port. At the same time, at these points the mainland
The distance between the island and the island is much narrower, and the arrangement on the isthmus
It also facilitated the construction of the military harbor breakwater. topographic structure
The breakwater built at the entrance of the bay is as wide as possible due to its suitability.
It was built large and its surroundings were limited by strong walls. your walls
especially the western part, which is most exposed to wave intensity, and other walls and ports.
Unlike its walls, it was built from large-sized polygonal blocks (Pl. 42.2). This
Since most of the blocks fell towards the west, the wall fell to the seabed.
It has not been determined how it was fitted.

In the southwest corner where the western wall of the breakwater turns towards the east and
There is a tower in the southeast corner where the harbor entrance is located. of these towers
The southern wall of the breakwater built in pseudo-isodomic style between
(Pl. 43.1). This wall is where the breakwaters of the Trade Port sit.
It sits on a sometimes rocky seabed, unlike the sandy ground.

---

[394] **This gap was probably closed during enemy or pirate attacks. need for defense**
It was left open when it was not heard.

[395] **The tower is listed as tower number 14 on McNicoll's plan (McNicoll 1997, Fig. 11)**

Due to its solid infrastructure, it has been preserved close to its original height until today396 .

In the part of the breakwater facing the harbor basin, it is attached to the harbor wall or different No remains were found. Partial sandblasting in this area also affects the arrangement here. makes it difficult to determine.

The breakwater of the Military Port was kept as wide as possible. Thus, the entrance of the harbor was pulled back and the tower at the entrance was located southwest of the breakwater. placed in the corner. With this planning, a corridor will be created at the entrance of the port. has been created. Thanks to this corridor, an enemy ship that could reach this area could be exposed to strong fire thanks to the towers on both sides397. This area is arranged as a land entrance rather than a port entrance and398 entrance control system is provided. **has been taken under. This situation was also very useful in the inspection of ships carrying commercial goods399 .**

Considering the period when the breakwater was built and the surrounding walls, BC, when the city was re-planned. It corresponds to the 3rd quarter of the 4th century. of Knidos The earliest example of a breakwater built with properly cut blocks, such as the Military Harbor breakwater, dates back to B.C. It is dated to the 2nd half of the 6th century and is located on Samos. is taking. Knidos Military Harbor breakwater is also one of the earliest in terms of construction technique. is one of the examples.

There are no towers on the breakwater other than the towers dating back to the period it was built. The structure cannot be seen. In later periods, in the northern part of the breakwater A large church was built from spolia materials. as "E Church"

---

396 Since the western walls of the breakwater have collapsed towards the west, how can this wall reach the sea floor? He could not be seen sitting. However, the harbor walls between the towers sit on the sea floor. It should have a similar structure to the regulation.

397 Apart from Knidos, there is a similar practice in Piraeus' Kantharos and Zea Ports.

398 McNicoll showed one of the city entrances as the entrance of the Military Port (McNicoll 1997, 60).

399 A similar practice is also seen in Herakleion Port. From the Nile to the Port of Herakleion It was determined that the entrance up to 100 meters was strengthened with towers and walls (Blackman 2008, 655).

The so-called building was unearthed during the 2nd period American excavations and dated to the 5th century AD400 .

[400] **Love 1972, 417-418, Fig. 3; Bruns-Özgan 2002, 58-59.**

4.2.2. Harbor Walls

As in the Trade Port, the Military Port basin was surrounded by a harbor wall.
is translating. The Military Port, whose coastline is approximately 400 m long,
In the Kap Krio section, although the upper parts of the walls were largely destroyed
lower rows can be followed. In the mainland part, natural conditions create a line along the coastline.
This makes it difficult to determine whether there is a harbor wall or not. harbor walls
The situation on the isthmus is more complicated. The filling and harbor in this area have been damaged over time.
The coastline formed by sandblasting allows us to determine the arrangement here.
It makes it harder. The harbor walls, which can be partially followed in the Military Port, are both
They are a continuation of the city walls on both the mainland and Kap Krio.

The city walls start from the south of the island in the western part of Kap Krio and
continue until the Military Port[401]. Despite the sloping land structure of this area
It has a strong structure with city walls supported by towers with isodomic knitting technique.
It has a defensive line. Walls from the western slope of Kap Krio towards the north
It continues and turns eastward after “Round Tower 1”.
The walls following the coastline starting from "Round Tower 1" end at tower number 11
located at the entrance of the harbor[402]. After tower number 11 at the port entrance
harbor walls begin. The harbor walls seen in Kap Krio are largely destroyed.
Although it is understood from the parts that have been preserved until today,
It has an isodomic knitting technique and is mainly made of local limestone blocks.
was used (Pl. 43.2).

On the mainland, the city walls came from the Acropolis and formed the "Round Temple".
From the area where the terrace is located to the coast in the topography sloping towards the south.
descends. The fortification walls on the coastline are shown as number 14 in McNicoll's plan.
While it is shaped according to the topography up to the tower, it parallels the sea after the tower.

---

[401] **The southern slope of Kap Krio is in the form of a high and rocky cliff and is a natural site for the city.**
provides protection. For this reason, no city walls or towers were found in this area.

[402] **To ensure the security of the harbor entrance between the Round Tower and the tower at the harbor entrance.**
There are two more towers for this purpose (McNicoll 1997, Fig. 11).

It **continues straight up to "Round Tower 2"403 . parallel to the sea**

These advancing walls are in trapezoidal style and have the lowest wave intensity within the city wall.

It is a very exposed area. Therefore, in order to resist wave intensity,

It was built from large-sized gray blocks that can be seen only at a few points of the city wall404.

This is the wall that turns eastward after "Round Tower 2"

The point ends with tower number 12. From this tower, which is located on the mainland side of the entrance

There are no remains of the harbor wall thereafter. east of the port

The fact that no ruins have been seen even at the foundation level in this area, which constitutes

Partial filling of the line due to sandblasting requires a different arrangement in this area.

suggests that it might be. After this part of the port, towards the west

The harbor basin continues. There are no remains of the harbor wall in this area either.

There is no (Pl. 44.1). However, the surface shapes are different from the structures on the mainland and the sea level.

The code difference between the Commercial Port and the Military Port is Kap Krio.

The part is surrounded by harbor walls, which also functions as a terrace wall.

This suggests that the harbor walls should continue in this area. 2nd semester

In American excavations, it is mentioned that there was a harbor wall on the mainland shores of

the harbor405. However, the mentioned walls are located in the Military Port.

It is far from having walls. Remains of the alleged harbor wall Trade

The construction technique and the harbor walls that can be followed in the Port and the Military Port.

It is quite different as a building material and orthostat blocks are used and a

It is associated with a different building where the entrance is located. around these walls

Doric column drums are also located in different parts of the city rather than the harbor wall of this area.

---

[403] **We also argue that the straight line breakwater after tower number 14 starts from this area.**
It strengthens. The city wall after this point also covers the western wall of the breakwater.
constitutes.

[404] **The beginning of the northern breakwater in the Trade Port in terms of stone type and knitting technique.**
Similarity with tower number 47, which is located at the point and may be exposed to wave intensity.
shows. Additionally, according to McNicoll's plan, between towers 44 and 47 on the mainland
The city walls following the coastline have a similar structure. Seleucia was exposed to the wave violence of Pieria
The remaining harbor walls also contain walls built from similar sized blocks (Chapot 1906,
198-204; McNicoll 1997, 85-86).

[405] **Love 1970, 153. Lev. 39, Fig. 13-14.**

It strengthens our claim that it belongs to a structure. designated as the harbor wall The walls, the entrance and the Doric column drums in this area must be related to the Agora, numbered 5 in the city plan prepared by the same team406 .

The regulation is clear on the isthmus connecting the mainland and Kap Krio. cannot be determined. Problems in the parts of the Isthmus facing the Trade Port It is also valid for the Military Port coastal line.

Both the walls of the Military Port at the entrance of the harbor and the The walls that can be seen in the basin are different in terms of construction technique and materials used. It shows the same features as the harbor walls in the Trade Port. Whatever The western walls of the breakwater were built with larger blocks and a different technique. However, this does not indicate that the walls were built from a different period. Because As mentioned above, the western walls of the breakwater are most exposed to wave intensity. is located in the remaining area. This necessitates creating a more resistant line. made it. As a result, the harbor walls of the Military Port are particularly Hellenistic. Apart from the repairs in the period, the city was re-planned in B.C. 2nd century of the 4th century It was built within the framework of construction activities in half of it.

At the entrance of the Military Port and within the harbor basin, the above-mentioned Due to its characteristics, the Port has the feature of "Closed Port" or "Closable Port", known as "ÿÿµÿÿ ÿÿÿÿÿÿÿÿ" "Limen Kleistos" in Greek407. This feature The reason for taking it was the walls continuing from both the mainland and Kap Krio. The walls continue until the very narrow entrance of the harbor and This is because towers were built opposite each other. As Strabo stated, when necessary This narrow entrance could also be closed with a chain.

"Closed Port" or "Closable Port" means naval warfare in the Mediterranean, It is a type of port that was widely used during the Hellenistic Period, a period when political and economic conflicts were common408. Herodotus (III. 60) states that the foundations of these ports date back to B.C. It is attributed to Polycrates, the tyrant of Samos in the 2nd half of the 6th century. The earliest examples after the Port of Samos are seen in Piraeus. B.C. 5th century

---

[406] Love 1968, Fig. 2.

[407] Lehmann-Hartleben 1923, 65-74, 122-164.

[408] Lehmann-Hartleben 1923, 65-74; Oleson 1988, 148.

During the Persian wars at the beginning of the 19th century, all three ports in Piraeus were strengthened with walls built of large blocks and turned into closed ports409. of the city walls Hellenistic ports surrounded by land, enclosed by harbor walls

It became widespread almost everywhere in the period, and in many cities it became a part of the city walls. They have become complexes surrounding both commercial and military ports. Apart from the Military Port of Knidos, Halicarnassus, Phaselis (Central Port)410 , Mytilene, Alexandria, Rhodos (Mandraki)411, Piraeus (Zea and Mounichia), Aegina (Northern Port)412, Thasos (Small Port)413 and Carthage (Inner Harbor)414 small Ports or inland ports are military ports with the feature of "closed ports".

---

[409] **Raban 2009, 63.**

[410] **Blackman 1973a, 359-361.**

[411] **Blackman et al. 1996, 371-426.**

[412] **Knoblauch 1969, 104-116; Knoblauch 1972, 50-85.**

[413] **Archontidou-Argyri et al. 1989, 51-59.**

[414] **Hurst 1979, 19-49.**

4.2.3. Towers Around the Military Port

Works carried out by different teams in Knidos in different periods
As a result, there was a unity in the number of towers within the city walls surrounding the city. There is no. German researcher A. von Gerkan identified 57 towers in his studies in Knidos415. In the studies conducted by IC Love and his team, the number of towers was stated as 40416. Taking both studies into consideration, AW McNicoll, who made the evaluation, added 4 more towers to A. von Gerkan's findings and stated the number of towers as 61417. Between these towers there is a military The two towers around the port are remarkable both for their location and their round forms. attracts attention.

Round Tower 1418

The first of the towers, which attracts attention with its location and form, is located on Kap Krio. is taking. Starting from the south of Kap Krio and continuing until the entrance of the Military Port at a point close to the harbor entrance as part of the city walls and towers (Pl. 44.2).

The tower, built entirely of white limestone blocks in isodomic style, has a diameter of 14.20 meters419. The tower was built on the area obtained by shaving the natural rock and rises on a two-stage infrastructure (Pl. 45.1). Good protection 10 rows of the tower are preserved in situ. to present day There are no windows or loopholes in the part that is protected up to 100 meters (Pl. 45.1-2). This tower, which differs from the towers in the city with its form, also stands out from other towers with its stone workmanship. It is separated from the tower and city walls. This one has extremely fine workmanship. The connection of the magnificent tower with the subsequent city wall has fine workmanship. They are almost intertwined (Pl. 46.1). Need “Round Tower 1”

---

[415] Gerkan 1924, Fig. 10.

[416] Love 1968, Fig. 2.

[417] McNicoll 1997, 55-58.

[418] It was named tower 8 by McNicoll. McNicoll 1997, 55, Fig. 11th.

[419] Winter stated that the diameter of the tower was approximately 14 m (Winter 1994, 38). McNicoll said, “13 He was content with saying "it is more than a metre" (McNicoll 1997, 59).

It is different from the other towers and the walls following it, both with the type of stone used and the knitting technique. It is clearly separated from the walls. The city walls and defense towers of Knidos generally date back to B.C. It is dated to the 3rd quarter of the 4th century. But "Round Tower With its 1" knitting technique, it is very similar to the structures in the Hellenistic Period rather than the Classical Period420. Due to these features, "Round Tower 1" is It must have been rebuilt during the Hellenistic Period, instead of a useless quadrangular tower previously built in the area421. "Round Tower 1", Military The defense system that provides defense of the entrance of the Port and the bay in front of it is an important part.

Round Tower 2422

The other tower, which attracts attention with its form and location, is on the Mainland, near the breakwater. It is located in the southwest corner (Pl. 46.2). Gray limestone and conglomerate The diameter of the tower, built from blocks in an isodomic style, is 10 meters. Like "Round Tower 1" It rises on a two-tiered infrastructure (Pl. 47.1). Nowadays natural regarding the tower (Pl. 47.2; Pl. 48.1-2), which was largely destroyed as a result of the circumstances IC Love said that it continues in a round form on a square platform423. However, what we do around the tower, both underwater and on land, No regulation regarding the square platform was seen in the studies. Only the tower

---

420 McNicoll stated that the tower was dated by researchers to the middle or end of the Hellenistic Period, and that his opinion was that it dates back to B.C. He stated that it was the 2nd century BC (McNicoll 1994, 59, dn. 78). It is an important structure that is very similar to "Round Tower 1" in terms of masonry technique. One of the structures is "St. Paul Prison" (Winter 1994, 38-39; Karlsson 1994, 144-146, Fig. one). Another similar example is the city walls of Herakleia (Krischen 1922; Winter 1994, 37-38; McNicoll 1997, 75-81; Karlsson 1994, Fig. 5). of Miletus Theater Its walls, dating back to the Hellenistic Period, are very similar to "Round Tower 1". (Karlsson 1994, 147, Fig. 4).

421 "Round Tower 1" is the name given to the city walls extending from the south of Kap Krio to the north, towards the east. It is located at the corner where it makes the right turn. With this feature, it can cover both the west of Kap Krio and the open sea. It also has a strategic location controlling the Military Port. Therefore, there is a quadrangular shape in this area. A round tower would be more useful than a tower.

422 It was named tower 13 by McNicoll (McNicoll 1997, 55, Fig. 11).

423 Love 1968, 134.

The underwater section has a wide and rectangular infrastructure. Apart from this, the parts of the tower visible above the water are completely round in shape[424] .

Some researchers working in Knidos discovered the Military Harbor breakwater. They stated that the tower in the southwest corner was used as a lighthouse. This was first stated by German researchers A. von Gerkan and F. Krischen[425]. 2. IC Love, who carried out the excavations of the period, also stated that this tower may have been used as a lighthouse[426] .

As we mentioned in the relevant topic in the Trade Port, ancient There is no evidence in the sources that there is a lighthouse around the Knidos Ports. There is no explanation. "Round Tower 2" is also located in the southwest corner of the breakwater. It is connected to the breakwater walls, which are also a part of the defense system. Considering this connection, it is like a part of the city's defense system. Although it is seen that it was used only for defensive purposes due to its form and location. It raises question marks. It is known that towers of similar form were used for defensive purposes in the city wall[427]. However, there are examples where round towers were used as lighthouses[428]. The earliest examples of the use of round towers as lighthouses can be seen on the Aegean island of Thasos[429] .

The three lighthouses in Thassos were designed considering both their forms and knitting techniques. When taken, it is very similar to this tower at the entrance of the military port. The most important difference between the Thasos samples and the Knidos sample is the

---

[424] While talking about the square platform, Love probably associates this tower with the lighthouse as Hellenistic. He built it in order to be evaluated in the same category with the large and magnificent lighthouses that emerged during the period. As a matter of fact, B.C. Most of the magnificent lighthouses that emerged in the 3rd century It starts with a quadrangular podium and continues with a round superstructure.

425Gerkan 1924, 110-114.

[426] Love 1968, 134.

[427] There is a round tower connected to the city walls at Loryma (Pimouguet 1994, Fig. 3; Rice 1999, 285, Fig. 113a); There are circular structures connected to the walls around the Great Harbor in Rhodes. there is a tower (Winter 1994, Fig. 3); Around the Port of Phalasarna, there is a very similar example to Knidos. There is a round tower similar to the other (Theodoulou – Memos 2007, 256-257, Fig. 2-3).

[428] Shaw 1972, 91; Blackman 2008, 655.

[429] Kozelj – Wurch-Kozelj 1989, 161-181.

The independent Knidos example of the round towers is connected to the breakwater wall. The way it was done. to a much later period than the Thasos examples. It is thought that a round tower connected to the walls in the Port of Caesarea dated 430 may also be a lighthouse .

Ancient sources, archaeological data and findings uncovered during excavations Examples show that lighthouses are generally located in any building. They are a structure in their own right, independent of the complex. However, there are exceptions is known. Large and flashy lighthouses are usually located at the entrances of the harbour. The lighthouse on the island of Pharos in Alexandria was located at the entrance of the harbor[431]. The lighthouse in Ostia stood on an artificial island at the entrance of the harbor[432]. Another partially excavated lighthouse is located in Leptis Magna[433]. Here too, the lighthouse was built right at the entrance of the harbor[434] .

As seen in these examples, which were the most important lighthouses of the ancient age, lighthouses They were always built at the mouth of the harbor and on breakwaters. Knidos For example, it is wide enough to build a lighthouse on the breakwater. Although the tower was built connected to the breakwater walls on the shoreline. This fact raises some questions. However, the breakwater is wide surface may have been reserved for a different building group during the construction phase. When we think about it, the tower is connected to the breakwater walls due to space saving. may have been made.

As a result, Round Tower 2 combines both ancient lighthouses and It shows significant similarities both in terms of its location and location. Archaeological Although the evidence is insufficient, due to these similarities, Round Tower 2 was used as a lighthouse or at least a beacon We can say that it is.

---

[430] **Vann 1991, 123-139.**

[431] **Bernard–Goldvin 1995, 60-61.**

[432] **Vann 1991, 128.**

[433] **Bartoccini 1958, 59-65.**

[434] **Blackman 1982, Fig. 3; Vann 1991, Fig. 7.**

4.2.4. Towers at the Military Port Entrance

Tower 1435

Tower 1 is located on the Kap Krio side of the harbor entrance. 9.5 x 9.5m

The tower, which has a square shape and dimensions, has been largely destroyed (Pl. 49.1-2; Pl. 50.1-2). White and gray colored limestone from the ruins that have survived to the present day It is understood from the blocks that it was built in isodomic style. The tower is approximately At its midpoint, a wall passes through the tower and narrows the harbor entrance. (Pl. 49.1-2; Pl. 50.1-2). This wall continues through the tower This indicates that the wall was built first and then the tower was built. However, the knitting technique of the wall and the tower and the dimensions of the blocks used are different from each other. It took a long time between the construction of the tower and the construction of the wall to be in harmony. It shows that there is no language.

The sea wall of the wall passing through the tower and continuing towards the harbor entrance The point where it sits on its base was determined and its length could be measured exactly. The length of the wall, 1.20 m wide, from Tower 1 to the harbor entrance It was measured as 12.5 m. Only one row is preserved in situ on the seabed. The incoming wall was formed by bringing 2 blocks side by side (Pl. 51.1). As with the southern walls of the breakwater, this wall has a relatively rocky ground. It is knitted on. There is no horizontal binding element on the blocks. could not be seen. On the vertical side, the blocks are fixed to each other with tenons (Pl. 51.2). Generally, tenons are not used in the vertical connections of wall blocks. Such a use can also be detected when looking at the walls, terraces and harbor walls of Knidos. It has not been done. The wall in question should be built on the seabed and subjected to wave intensity. The fact that it will be exposed necessitates such use. This example is on the sea floor It is very important to show the knitting technique of the constructed walls.

Tower 2436

It is located on the breakwater, on the mainland axis of the tower at Kap Krio. (Lev. 49.1; Lev. 52.1-2). It is the tower with the worst state of preservation. 6.5 x 7

---

[435] It was named tower 11 by McNicoll (McNicoll 1997, 55, Fig. 11).

[436] It was named tower 12 by McNicoll (McNicoll 1997, 55, Fig. 11).

It has a quadrangular form, close to a square, with dimensions of m. Conglomerate and limestone blocks
It is a part of the tower defense system built in isodomic style and is also
It was built to control the entrance to the port. Inside the tower of the tower at Kap Krio
0.85 axis to the exact axis of the wall that passes through and narrows the harbor entrance.
There is a gap of meters (Pl. 49.1; Pl. 53.1-2). Strabo's
As far as we know from their transfers, such ports can be chained when necessary.
It could be closed. To close the port mouth of the gap coming to the wall axis
We think that there is a gap through which the chain used passes. of this emptiness
The area behind is where the mechanism that tensions and loosens the chain is installed.
We can suggest that it is.

With two opposing towers built at the entrance of the military port

The section of the defense system at the entrance of the harbor has been made highly protected and
Both warships and merchant ships can be easily controlled at port entrances.
made it possible.

4.2.5. Problems in the Military Port

4.2.5.1. Ship Shelters

The most important problem in the Military Port was military ports in ancient times. Ship shelters, which are almost indispensable elements of ports is the subject. So far, there is no information about ship shelters in Knidos Military Port. No remains could be identified. In ancient sources and inscriptions unearthed in the city, There is no mention of the existence of ship shelters.

Ship shelters are an important part of military ports that should be located on the coastline. constitutes the building group. Merchant ships at sea during the winter months While they can stop, military ships are not allowed to ship around the port during this period. They retreated to their shelters and were protected, maintained and repaired in these shelters until suitable weather conditions occurred[437] .

Ship shelters must be on the shoreline and continue towards the land with a certain slope[438] (Pl. 54.1-2). Overlooking the harbor towards Kap Krio It is not possible to have such a structure in the section. Because the coastline in Kap Krio It is at a higher level than the sea and this line is limited by the harbor walls. Same

---

[437] **The best quality warships were made of trees that were weak against rain and sun. This Therefore, unlike merchant ships, warships are used when not in use, especially in winter. They were brought ashore on sledges in the months of The main reasons for this are decay and the destruction of wood-eating insects such as "teredo navalis". B.C. Before the 4th century, the hulls of some commercial ships were more durable. In order to be safe, it was protected by a lead coating. Making such an application on warships It is not possible. Because if they were covered with lead, they would be extremely slow and their maneuverability would be impaired. They would lose. That's why it was covered with pitch and sometimes wax. These ships are especially popular during the winter season. provided that they could be unused for a long period of time and could be easily used in an emergency. they needed to be protected out of water as much as possible (Blackman 1982a, 204). Therefore, permanent and** Structures called ***"neosoikoi",*** **usually translated as ship sheds, were built** for their purpose. **(Blackman 2008, 657).**

[438] **Ship shelters are long, roofed structures that are large enough to accommodate a warship. to the sea The facing sections are completely open. A certain amount of water must be required to be pulled from water to shelter or from shelter to water. They have a slope. These sloping areas form a rocky area where topography allows. It can be obtained by shaving, or it can be covered with soil, rubble or sand. But in general these areas were covered with wood (Blackman 2008, 657-660).**

The situation is valid for the part of the port facing the mainland. In this case, if there is
Ship shelters had to be either on the isthmus or on the breakwater. Antique
There were various structures on the wide breakwaters of the modern ports.
is known. One of these structures is ship shelters. breakwater harbor
This is due to the fact that there is no data regarding the harbor wall in the section overlooking the basin.
It suggests that the area was used for a different arrangement (Pl. 55.1-2).
Therefore, ship shelters may have been built on the breakwater of the Military Port.
At this point, Vitruvius's suggestion regarding the direction of the ship shelters was made in the Military Port.
It contradicts the direction the breakwater faces. Vitruvius (Vitr.
It suggests that they should face north to avoid sunlight. But breakwater
A possible ship shelter built on it faces northeast. But ancient
When the ports of the age are examined, Vitruvius' suggestion is not very valid.
can be seen. Zea and Piraeus, where the most important examples of ship shelters are located
It is seen that the shelters in the Mounuchia Ports cover the entire coastline and were
not built with any directional concerns439. The Naxos samples, whose excavations have
been largely completed, face the northeast440 . Because
Breakwater was built taking into account Vitruvius' suggestion regarding the direction of ship shelters.
It would not be correct to say that a ship shelter cannot be built on it.

Another question about a possible ship shelter built on the breakwater

sign means that the width of the breakwater and the lengths of the ship shelters are compatible with each other.
whether it will happen or not. Ship shelters have a certain slope from land to sea and
their length varies between 30 and 45 m441. Military Harbor breakwater
Its width is 44 meters. The width of the breakwater allows ship shelter to be built in this area.
It allows. In this case, on the breakwater for warships in Knidos

---

[439] **Morrison et al. 2000, Fig. 71.**

[440] **Blackman – Lentini 2003, 407, Fig. 23.**

[441] **Leo 2011, 99.**

We can suggest that ship shelters have been built442. However, this suggestion will be no more than an assumption without excavations in this area443 .

4.2.5.2. pier

Regarding the existence and possible location of ship shelters in Knidos Military Port Apart from these problems, another problem is that there is no pier in the port. is its absence. This is how the crews of warships board the ships. It raises a question mark on the subject. Similar problems within the ports of Piraeus valid. The coastlines of Piraeus' two small military ports are largely shipwrecked. It has been suggested that the crew boarded the ships using the piers of Kantharos Port, as it was full of shelters444. The same application may be valid for Knidos. Moreover, the canal between the Military Port and the Trade Port of Knidos Transition between ports is much easier than Piraeus Ports. should be. In this case, the crews of the warships were on the isthmus in the Trade Port. They must have boarded their ships from the pier.

4.2.5.3. The Gate on the Western Wall and the Channel Following It

Another problem area around the port is the western wall of the Military Port which we suggest is the starting point of the breakwater. It is the opening and the channel following it (Pl. 56.1-2). It is directly connected to the sea The opening continues towards the land as a channel for 16.5 m. This

---

442 Ship shelters were also detected in Rhodos Mandraki Port and Thasos Military Port. Although it cannot be determined, various areas along the coastline may be reserved for ship shelters. has been suggested (Blackman 2008, 656). For Rhodos Mandraki Port, see. Blackman et al. 1996, 371-426.

443 There are many coastal cities in Anatolia with double harbours, such as Knidos. Smaller size than these ports The ones or the inner ports were used as military ports. But there is no such thing yet in these ports. The ship shelter could not be identified. Kekova is one of the few examples found on the Anatolian coast. It is in Simena, which has a small port area in the region (Aslan 2011, 96). Apart from Simena, in Loryma It has been suggested that some data obtained as a result of geophysical measurements may belong to ship shelters. (Held 2006, 193-194, Fig. 8; Blackman 2010, 389-391). Pedersen in Halicarnassus The ruins of a wall seen underwater in the south of the Zephyrion peninsula belong to a ship shelter. He stated that it could be possible (Pedersen 2010, 303-304, Fig. 42).

444 Blackman 2008, 656.

Since the fill at this point is filled with soil layer, how far does it continue towards the land? It has been determined that . This opening and the channel following it could not be interpreted by the teams working in Knidos. Only Bruns-Özgan mentioned that there was a door in this area445 .

One of the most important problems of ports in the Ancient Period was sandblasting. is the problem446. This problem occurs in closed or closed ports such as Knidos Military Port. It is a much more important problem for In order to prevent this problem, port engineers have built spray channels around the port447. This The channels raise the threshold slightly above the sea level to meet the waves. They are located and equipped with sedimentation tanks, carved into the rock or artificially constructed448. Examples of spray channels were found in the Port of the Doric city on the Levant coast and date back to B.C. It is dated to the 2nd century. It's the same except for t There are also spray channels in Sidon in the geography. Cosa and Seleucia In examples, wastewater in coastal lagoons, fish ponds or rivers its direction was changed to flow towards the landlocked harbor for spraying. has been detected. The Mediterranean is largely tidal or has closed harbours. There is no tidal amplitude to create a current strong enough to spray. This In this case, it has become necessary to take precautions to prevent sandblasting. Thanks to the known canal between the Military Port and the Trade Port in Knidos A certain circulation is ensured. However, the Military Port has the feature of a closed port. Therefore, different precautions need to be taken. Therefore the west The opening on the wall may be related to the spray channel. But the ship As we stated in the shelters, unless excavations are carried out in this area, this thought will not be valid. It will go no further than conjecture.

---

[445] Bruns-Özgan 2002, 59.

[446] Ephesus and Miletus in Anatolia, the two ports of Corinth in Greece, the two most important ports of North Africa. Port of Leptis Magna, one of the ports of Rome, and the great Portus in Ostia, one of the ports of Rome. The port and many other ports have become unusable due to sandblasting problems.

[447] Spray channels are located on every exposed coastline and everywhere in the Levant. It was almost an essential element in closed harbors on depression-containing coasts.

[448] Raban 2009, 66.

4.3. Channel Between Trade Port and Military Port

Knidos was built on a sloping land facing south and descending towards the sea, and on the small island called Kap Krio right in front of it449. of Knidos
After its abandonment, the Mainland and Cape Krio merged due to the mud and sand brought by the centuries and took the appearance of a peninsula450. Nowadays with the mainland
Even though the island was united, according to Strabo's (Strab.
As far as we know, the island was formed by a breakwater built from the mainland towards Kap Krio. was merged with the mainland. As a result, the city is located in the east and west of the breakwater. It has two ports: Locations of the mainland and Kap Krio and
Due to its suitable topographic features, a canal was built between the two ports and the ports were opened. are linked to each other (Pl. 3.1-2; Pl. 4.1; Pl. 7.1). this channel
Thanks to this, the ports have become much more functional and at the same time
Sandblasting, one of the most important problems, has also been prevented.

The canal, which is completely closed today (Pl. 6.1-2; Pl. 57.1), was built in the 19th century. constituting the city plan of Knidos, which has been visited and researched since the beginning. The plan was developed by researchers based on existing ruins and surface shapes. placed on it. C. Th., who carried out the first comprehensive studies in Knidos. In Newton's plan, the width of the channel is given as 14 m and the length as 7 m451. second IC Love, who carried out the Knidos excavations of the period, stated the width of the canal as 20 m and the length as 7 m in the city plan452. In the third period excavations, the city The borders were determined by following the existing coastline, which did not specify a channel in the plan, and the city plan was created453 .

In the field studies we carried out in Knidos, we drew a schematic plan of the port. While removing the existing wall remains and surface shapes in the area where the channel is located,

---

[449] Bruns-Özgan 2002, 4-5.

[450] This formation, which the Greeks called 'Euripos' (Pausan. VIII. 30, 2), is called geographically today. The term is called "tombolo". (Erel et al. 2005, 542). Sinope, Sesamos, Perinthos, Halicarnassus, Korykos, Kyzikos, Neopolis, Cilicia Aphrodisias have similar formations in Anatolia. are ancient cities (Ceylan 2010, 353-355).

[451] Newton 1863, Pl. L.

[452] Love 1968, Fig. 2.

[453] Bruns-Özgan 2002, Fig. 134.

In the plan we created by following, the width of the channel is 20 m and the length is 7 m. has been determined. These measurements are consistent with Love's findings.

The channel between the Trade Port and the Military Port is a channel that uses both ports. The ships were of great importance both for the city. IC Love, north in Knidos when the winds start blowing, in July and August or during the war It provided great maneuverability to military ships in times and It allows them to easily move from the Military Port to the Trade Port. stated. Also, when the south and east winds start blowing in the winter months He also mentioned that the ships in the Trade Port continued their journey by passing through the canal to the Military Port without being affected by the winds[454] . These passages are made through the channel without crossing the rocky coastline of Kap Krio island. While it means a safer journey for sailors, time is also important. They achieved significant savings. Thanks to the canal, they pass through the ports and make their way The ongoing ships must have created an extra source of income for Knidos.

This channel, located between the Trade Port and Military Port of Knidos, It also raises the question of how the communication between Krio and the mainland is. Love suggested that this communication may have been made by small boats or a mobile bridge operating between the two sections[455]. The existing ruins in this area are It was built of rectogonal stones, especially in the part of Kap Krio. The platform has been interpreted as a bridge pillar (Pl. 57.2). In this case, Kap Krio Communication between Turkey and the mainland is via a mobile bridge rather than small boats. It is more likely to have been done through

In addition to the ease of passage between ports, another important aspect of the canal is Its feature provides important protection against the sandblasting threat of port basins.

---

[454] Love 1968, 134-135. In the Military Port or the Trade Port, with the wind at their back, such Although maneuvering is an important advantage for ships using the port, they are especially important for trade. The entry of ships into ports and their movements within the port basin are subject to certain rules. was happening. The most important of these rules is that ships must lower their sails when entering the port and It is intended for movement within the port by tugboats. In this case, especially for a narrow entrance Instead of passing through the Military Port and the canal between the two ports with the help of sails, They are more likely to pass with the help of tugboats.

455Love 1968, 134.

is to provide. Although there is a river around Knidos that would threaten the ports
There is no problem of being covered with silt and therefore there is no problem of being covered with silt.
However, port engineers are taking precautions against the sand accumulation brought by the waves.
Various measures need to be taken. In this case, this channel between two ports
It had the function of preventing the harbor from being covered with sand by providing a certain
water circulation456 .

---

456 Similar topographical structures with the same functions as the canal connecting the two harbors of Knidos.
A few examples of these features are known. The ports of Halicarnassus and Mytilene connect to each other through a channel.
It is connected with (Blackman 1982b, 193). One of the channels connecting the ports of Kyzicus
The section can still be seen today (ÿahin – Gündüz 2010, 179-182, Fig. 1-3).

5. THE PLACE OF PORTS IN URBAN PLANNING AND THEIR RELATIONSHIP WITH THE CITY

5.1. B.C. Settlement in Knidos Before the 4th Century

Archaeological findings unearthed in Knidos and the Mediterranean basin date back to at least B.C. It shows that it dates back to the 13th century. Despite that GE Bean and JM Cook, who conducted research in the region in the middle of the last century, located in Tekir at the tip of the peninsula, B.C. They put forward the claim that there was no settlement before the 4th century and that Knidos was in Burgas before this date[457]. this thesis It is also accepted by N. Tuna and D. Berges, who continue archaeological excavations in the Burgas settlement[458]. In addition, those who carried out the 2nd and 3rd period excavations of Knidos The teams did not accept this claim, stating that such a move did not occur. R. Özgan, who carried out the 3rd period excavations in particular, stated that this claim cannot be true, based entirely on archaeological evidence and ancient writers[459] .

The name of the city was first mentioned in BC. It is mentioned in tablets found in Pylosele, a port city in the Peloponnese, dating back to the 13th century. These written documents date back to B.C. There was a settlement in the 13th century and BC. It shows its connection with Continental Greece towards the end of the 2nd millennium BC[460]. Especially around the Military Port Camerian style vases and Mycenaean ceramic pieces found during the excavations confirm the written documents[461] .

Archaeological remains show that the city was inhabited uninterruptedly until the end of the Classical Period. B.C. Starting from the 2nd half of the 4th century, a period that can be considered as a golden age began for Knidos. B.C. 3rd of the 4th century quarter, new and more modern settlements were built on the Archaic and Classical settlement of Knidos. With a planning, an arrangement consisting of the majority of today's ruins was made[462]. "Grid plan" on the residential areas of the old city

---

[457] Bean–Cook 1952, 173-178.

[458] Berges – Tuna 1990, 19-35.

[459] Özgan 2009, 93-112.

[460] Stelle 1965, 34-35, n. 83; Cahn 1970, 13.

[461] Love 1978, 1111; Bruns-Özgan 2002, 7-8.

[462] Gerkan 1924, 90-93.

A suitable (hippodamic) system has been created[463] (Pl. 58.1). From Thucydides' statements B.C. Knidos, which was understood to have no city walls in the 5th century B.C. In the 3rd quarter of the 4th century[464], a strong city wall supported by towers was built, covering two-thirds of Kap Krio and the entire mainland part[465]. on the terraces
In the excavations carried out under the foundations of the buildings in the Kap Krio section of the rising city, it was found in the terrace filling soil and dates back to B.C. Ceramics and other small finds from the 4th century support the dating of this structure[466] .

5.2. The Emergence and Development of Regularly Planned Cities

In the Ancient Period, cities were established within the framework of a regular plan or Several factors played a role in the reorganization. Most of these
The important ones are wars and natural disasters. Apart from these, with the increase in population The need to establish another city and get rid of the dense population is another important factor in re-planning cities or establishing a new city[467] .

---

[463] Gerkan 1924, 117-118, Fig. 10.

[464] As far as we know from the quotes of Thucydides (Thuc. III. 33. 2), it was in Knidos, B.C. There were no city walls in the 5th century. In this case, the city walls date back to B.C. at the earliest. It must have been built in the 4th century. This This period is also the period when defense systems developed in the entire Mediterranean geography. Late Defensive walls and towers showed great development in the Classical-Early Hellenistic Period. (Pedersen 2010, 269). In this change, in which several factors play a role, the most important factor is the new Changing political boundaries due to the establishment of empires and the resulting new borders situation. The wars and defense strategies that broke out during these political developments led to new developments in siege techniques (McNicoll 1986, 305-313). B.C. Syracuse in 399
The emergence of the catapult, which is thought to have been invented by Dionysios, was a significant factor in attack and defense. It enabled the systems to develop rapidly (Marsden 1969, 48-64). This is a stronger wall It allowed the development of towers connected to walls and city walls. All these factors It caused the rebuilding of the defense systems of many cities, including Knidos. has happened.

[465] Özgan 1992, 173, 177, Fig. 1-4, Plan 1-2; Bean 2000, 152.

[466] Ninety-six 2006, 29.

[467] Knidos BC. There are various opinions about its reconstruction in a grid plan in the 4th century. G.E. Bean and JM Cook discovered in Knidos B.C. during their research in the region. Since there is no archaeological data before the 4th century, Knidos is believed to have been dated back to B.C. In the 4th century, they called it Old Knidos, stating that it was in Burgaz, around Datça. B.C. They claim that it was moved to its current location in the 4th century.

B.C. Regularly planned cities started in the 8th century within a certain system. It started to be made in the Archaic Period. Foundations Archaic

This system, which was introduced in the period, was shaped in the Classical Period and continued in the Hellenistic Period. has completed its development. B.C. Some of the requirements for the city in the 5th century brought with it the methods. The grid plan format is basically a very large Although it is not accepted as an invention, the way it is applied and the cities where it is applied It has become important with its contributions. With this system, newly established and old ruins How to divide the land in the easiest and most appropriate way in cities that are rebuilt on and easy solutions to important problems such as how to meet the needs of the public. can be found.

Before the city plan was created, the places where the city walls would pass were determined. should be. Diodorus ***(Diod .***

The line along which the walls would pass was determined and the walls were built. Later in the city "It was planned . ***"*** **Some committees were meeting to determine the places where the walls would pass and to plan the city and supervise these works469. Walls city plan It was built to follow the hill lines and topography of the land without adhering to any system. More space than was needed was allocated within the walls built in this way when the city plan was being made. need The surplus land also allowed for the city's subsequent expansion. The main gates on the walls generally opened to the most important street of the city471 .**

(Bean – Cook 1952, 171-212.). R. Özgan, who carried out the Knidos excavations for many years, both in the 2nd period He rejects this idea based on the archaeological findings unearthed in both the American excavations and the 3rd period Turkish excavations (Özgan 2009, 93-112).

[468] Gerkan 1924, 30; Stillwell 1976, 870; Wicherley 1993, 15; Hoepfner – Schwander 1994, 50; Owens 2000, 58.

[469] An inscription unearthed in Kolophon states that the citizens lived in B.C. He will rebuild his cities at the end of the 4th century and It shows that they decided to appoint a board of ten people to expand the scope of the project. The duty of this board is to planning the line to be followed, after reserving the most suitable places for the agora and public buildings, the architects It was to supervise street planning and the determination of where buildings would be built (Wicherley 1993, 28).

[470] Croix 1972, 22; Ward-Perkins 1974, 14.

[471] Wicherley 1993, 30.

The grid plan has been applied to all types of terrain. Both straight and curved
It is a system that can also be applied to topography. On the other hand, it is more suitable for
flat topography and easier to apply472. This plan is flat like Miletus 473 **and Piraeus 474.**
Although it is easier to implement in cities with high topography, it is clear and
While it shows a stationary plan, it can be used on sloping terrain, which is more difficult to implement.
movement wins. One of the best examples of the grid plan applied on sloping land is Knidos.
Apart from Knidos, Halicarnassus475, Priene476, Herakleia of Latmos477 and Rhodos478 are
some of the settlements where this practice is seen.

Applying the grid plan on sloping land requires terracing.
has become. In cities built on terraces, the buildings have a view dominating the landscape.
They rose without hindering each other. The city with its terraces
Its appearance was also becoming more monumental. Streets in such a topography
and while some of the streets run straight on the terraces, these streets and avenues run vertically.

---

[472] Ward-Perkins 1974, 15.

[473] Gerkan 1924, 29-31, 38-41, 45, Fig. 6; Gerkan 1935; Hoepfner – Schwander 1994, 17-22;
Wicherley 1993, 16-17.

[474] Gerkan 1924, 29-30; Judeich 1931, 144-147.; Wicherley 1976, 684-686.; Garland 1987; Hoepfner
– Schwander 1994, 22-49; Reden 1995, 24-37; Owens 2000, 57-58.

[475] Gerkan 1924, 7,14, Hoepfner – Schwander 1994, 226-234.

[476] Wiegand – Schrader 1904, 35-57, Pl. 3; Gerkan 1924, 85-91, Fig. 9; Wicherley 1945, 12-16;
Schede 1964, 11-24; Martin 1974, 207-208; Hoepfner – Schwander 1994, 188-225.

[477] Gerkan 1924, 14-15, Fig. 4; Krischen 1922, Pl. 1, Plan 2.

[478] Diodorus (Diod. XX 83. 2) B.C. For Rhodos, founded in 408, "a consciously great
"It is likened to theatre," he says. According to Vitruvius (Vitruvius II. 8. 11, 5)
The same is true for Halicarnassus. Theater for Knidos in Strabo (Strab. XIV 15. 5)
He used the analogy. The metaphor of theater for these three cities in the Doric Hexapolis is
It was previously misinterpreted that the streets were like passages radiating from the orchestra to the surroundings in the theatre.
It was thought that it was planned. However, as a result of the studies carried out, in all three cities there are vertical lines that intersect each other.
With the determination of the grid plan system depending on the islands between the streets, this
It has been understood that the analogy is only related to topography (Owens 2000, 59; Wicherley 1993, 22).
For Rhodos, see Kondis 1954, 1-31; Bradford 1956, 57-69; Bradford 1957, 277-286; Kondis 1958,
148-151; Wicherley 1964, 135-139; Castagnoli 1971, 14-15; McCredie 1971, 99-100; Ward-Perkins
1974, 14-15; Martin 1974, 148-149; Hoepfner – Schwander 1994, 51-67, Rice 1995, 383-404.

Other streets and avenues that intersect are inclined and facilitate exit in many parts.
Stairs were added for this purpose.

In the Classical Period, while cities were built on a grid plan, they were built within certain targets.
was being done. These;

— Distributing building groups to certain areas according to their functions;

— With a centralized approach, public buildings such as agora, temple and bouleuterion were built in the city.
planning in the center and reducing the distance to residential areas;

— By creating building islands with avenues and streets that intersect each other perpendicularly,
placing structures;

— To bring monumentality to the city, to save the city from monotony and to use the land for visual purposes.
to ensure its use.

— In port cities, the city center is located near the port or ports.
to ensure the connection of the port area and other urban spaces.

5.3. Knidos BC. Replanning in the 4th Century

It is both a coastal city and located on sloping land.
In creating the parcels on which the buildings will be built in Knidos, both the port city and the
Since it has a port area and it is a slope, attention should be paid to terracing.
planning has been made. Concern about adapting to the terrain due to sitting on a slope and this
In the city located with the problem of placing the city center on the land, public
Establishing the relationship of the areas with both the port area and the residential area
It is an important problem.

Like many cities with a grid plan, Knidos was the first in urban planning.
The place where the walls will pass must be determined. The walls that have survived to the present day
Looking at the ruins, it can be seen that it followed a wide line including the ports.
can be seen. The walls are not connected to any system within the city plan.
Built entirely to follow hill lines and land topography
have been made.

Knidos has the visual advantages of this topography, as the land is sloping.
Gradually, on the plains created by the terracing method using
has been placed. Although it is difficult to place the city on a grid plan with terracing, this
This situation added a monumental atmosphere to the city. Land is divided according to the functions of urban structures.

divided into three479. According to this distinction; a zone for public buildings, a zone for residential buildings Two different regions and one region for ports have been created. These three separate areas are separated from each other by streets that cross each other perpendicularly480. Streets and avenues parallel to the slope While progressing straight, it progresses perpendicular to the slope and the connection between the terraces The streets providing roads are arranged in the form of slopes and some sections have been added to them. Egress is made easier by stairs. It is a square of streets with stairs that cut perpendicularly to the main street, which was planned parallel to the port in the east-west direction. A grid plan was created with the islands it brought, and the buildings were placed on these islands482 .

During the 1st period excavations in Knidos, C. Th. Newtonian grid plan He did not make an evaluation about the streets, avenues and islands formed between them in the city built using the method. A. von Gerkan and C. Th. Newton's As a result of the plan he prepared and the studies he carried out in the city, he determined that the islands were 55 x 30 m in size484. While **the width of the main streets between the islands is 10'485 m, the width of the streets outside the main street is approximately 5.50'486 m each. are equal to each other. Located on one of the upper terraces of the city, the east-west The main street in the direction, from the north of the Trade Port, to the Port Theater and**

---

[479] Coastal cities, unlike cities located in the inner regions, have public and residential areas. In addition, they also have a port area. However, it is also possible to combine port structures with other areas. connections will need to be established. For this reason, the city in coastal settlements is divided into three parts. This The regions are port area, public buildings area and residential area. Public buildings to residences Since they cover a larger area, the widest and flattest parts of the city are reserved for these structures. Same At the same time, the area allocated for public buildings and their distance to residential areas and the port area are also Care should be taken to ensure that this distance is short and easily accessible.

[480] In Piraeus, in addition to streets and avenues, a clearer distinction was made between public spaces and residential areas. Boundary stones were used to separate the areas. (Hill 1932, 254-259; McCredie 1971, 96-98; Shaw 1972, 91; Garland 1987, 140-141, 225-226).

[481] Love 1972, 69-70.

[482] Özgan 1997, 273-274.

[483] Newton 1863, 345-526.

[484] Gerkan 1924, 92-93.

[485] Love 1968, 133.

[486] Gerkan 1924, 82; Love 1968, 133.

Continuing from the west of the Stoa of Dionysus, it is connected to the other main streets of the city.
was intersecting. These main streets include the buildings on the upper terraces, the harbor street (Pl. 59.1) and
It connected **it to the region where the ports were located with streets such as Theater Street (Pl.**
59.2) 487 .

In Knidos B.C. The city was built in the 3rd quarter of the 4th century.
The radical changes in the structuring of the city and the reorganization of the city according to
a grid plan488 were not limited to the mainland only, but were also included in this comprehensive
planning in Kap Krio. Especially after the 3rd period excavations, like on the mainland
It has been determined that the northern slope of Kap Krio was terraced, creating suitable areas
for buildings489. Kap Krio is generally located in residential areas
Since it is a region, an east-west main street connecting different areas as on the mainland could
not be identified490. East-west and north-south
Islands and islands intersecting each other perpendicular to a grid plan through streets in the direction of
parcels were created. Between the islands determined by the terraces
side streets in the east-west direction and perpendicularly cutting them
Typical Hippodomic plan with wide staircased streets in north-south direction
It was also created here. Thus, the structures were placed on these islands and
Suitable residential areas have been created. All these areas have stairs
It is connected to the port area by streets.

B.C. Within the framework of this planning carried out in the 3rd quarter of the 4th century
It is understood that the part in the north of the mainland is reserved for "public space".
It is seen that both the early temples from the period when the city was founded and the temples
built in later periods are in this region491. Also Bouleuterion

---

[487] In cities that are not port cities and have a connection with a single area outside the city center, the main
While the streets run along a single line, in port cities the avenues and alleys divide public spaces, residential areas and
in a way that cuts each other vertically in order to connect the buildings and the port area.
They are planned.

[488] Gerkan 1924, 117-118, Fig. 10.

[489] Ninety-six 2006, 29.

[490] Ninety-six 2006, 38.

[491] Apart from this arrangement, the Sanctuary of Demeter is located under the Acropolis, away from the city center.
It is located on a rocky terrace. Such cult centers are usually located outside the city center.

just south of the area where the temples are located, which is also reserved for public space. It was built in the section. Public buildings, starting from the area where the ports are located It progresses in a certain order towards the upper terraces. All these public buildings, to the port area with the theater street and the port street running perpendicular to the terraces. While connecting the terraces, the streets running parallel to the public area and residential areas connects them to each other. In addition, the east-west oriented main street and the eastern part of the city There is a direct connection to the public area from the door.

Residential areas are arranged in two different regions. Both on the mainland and public The parcels starting from the south of the area up to the city walls and the Cape Most of Krio is reserved for residential areas. Strabo (XIV. 656) Knidos The majority of residents' residences are located in the island part of the city. It conveys. As a result of the 3rd period excavations, data to support Strabo's discourses were obtained[492] .

As a result of the 3rd period excavations carried out in Kap Krio, at least In the eastern part of the slope, the terraces are 10 m wide on average every 35 meters. It is cut vertically by streets with stairs and every two overlapping terraces, A system in which the terraces are separated from each other by an intermediate street approximately 5 m wide has been determined[493]. natural conditions and agricultural activities that continued until rec Although the majority of it was destroyed due to activities, it was Looking at Krio, the same system continues not only on the eastern but also on the western slopes. It is understood from the terrace walls that have survived to this day. According to excavations and research, B.C. It was created in the 3rd quarter of the 4th century and was built during the Hellenistic Period. The terraces in Kap Krio and the structures on them, Social and economic life continued to develop. From religious or public buildings

---

(Bruns-Özgan 2002, 95-98). Similar situation in Priene Sanctuary of Demeter valid. Demeter in Priene, one of the cities where the grid plan was best implemented in every aspect. The Sanctuary is located on a terrace at the foot of the Acropolis, away from the city center (Schede 1964, 90-95; Rumscheid 2000, 151-160, Fig. 30).

[492] Ninety-six 2006, 36.

[493] Ninety-six 2006, 29.

houses for public use and shops connected to the Trade Port and
Workshops took their place in Kap Krio within a very intense social life.

Except for public areas and residential areas on the mainland and Kap Krio
Another region that had a place in urban planning was the port region. of the mainland
The rocky coast continues with a long island after a narrow and low isthmus. a narrow
The canal connects the island and the mainland. Formed by island and mainland
There are two ports in the area, one in the north and one in the south. This
Depending on the topographic characteristics, the city has a port-centered location.
brought. Due to the ports in the center, there are connections between the mainland and the island.
All traffic roads opened to the port. This is a situation whose economy is based on trade.
It was inevitable for the city. The port region is not limited to ports as a mere basin.
The harbor structures around the ports were also a part of this region.

The phenomena seen in regular cities in the Classical Period also manifested themselves in Knidos.
shows. However, Knidos has an urban structure spreading from a center.
It is different from other cities. This difference is due to the topographic structure of the city.
It is due to. Its foundations were laid in the Archaic Period and its foundations were laid in the Classical Period.
The grid plan that is shaped is generally considered as a city whether it is a port city or not.
in a flat area in the center, reserved for public spaces and residential buildings.
The city plan was created according to the agora, taking the agoras, which were arranged
close to the areas, as the center494. Agora was a center that united all elements of the city
and the center of life495 .

Implementation of Agora Centered System

It is not a port city in Anatolia and where the grid plan is best applied.
Priene comes first among the cities. In the city, which has a sloping topography, the agora is the center of the city.
It was located exactly in the center. Most of the public buildings are located around the agora.
has been placed. The main street connecting the east and west of the city passed through
the agora496. The agora is a central building in the city of Olynth in continental Greece.

---

[494] In port cities, although the activity center is the port or the regions where the ports are located,
Cities have agora-centered planning.

[495] Wicherley 1993, 45-78.

[496] Gerkan 1924, Fig. 9; Hoepfner – Schwander 1994, Fig. 179, 183.

It was located in the location497. As in Priene, the main street connecting the east and west of the city in Olynth passed through the agora498. Again Continent
In Kassope, an important center in Greece built on a grid plan,
The same planning applies. Agora is located in the city center, on the edge of the main street connecting the east and west of the city499. Located in a different geography
Although it was taken into consideration, the situation was not different in the city of Dura Europos. Agora was located in the center of the city and on the main street of the city500 .

In cities not located on the coastline, regardless of topographic conditions, agora
It is taken as the center and public areas and residential areas are surrounded by the agora. was placed. Agora was located in a flat area in the center of the city. main city
The streets pass around the agora and connect public areas and residential areas. would provide the connection.

Application of Agora Centered System in Port Cities

The implementation of the system is different in port cities. of Western Anatolia
It is one of the important port cities and one of the earliest applications of the grid plan.
In Miletus, the agora is located between its two ports, on the widest and flattest part of the city. has been placed. Agora is connected to the ports by main streets passing on both sides.
The agora in the center is in an important position in terms of easy access to residential areas as well as port areas501. Herakleia on the Black Sea coast
In the city of Pontike, the agora was built in an area close to the port. The agora, which is directly connected to the port, is also located on the main street of the city502 .
The situation was slightly different in Latmos Herakleia. The city is located on sloping land While the port was planned around a central agora as if there was no port, the port was excluded from this planning503. This situation affects both the suitability of the coastline for the port.

---

[497] Hoepfner – Schwander 1994, 68-113, Fig. 55.
[498] Hoepfner – Schwander 1994, Fig. 55.
[499] Hoepfner – Schwander 1994, 261-265, Fig, 244-246.
[500] Hoepfner – Schwander 1994, Fig. 244.
[501] Gerkan 1924, Fig. 6; Hoepfner – Schwander 1994, Fig. 13.
[502] Hoepfner – Schwander 1994, 12, Fig. 7.
[503] Gerkan 1924, Fig. 4; Krischen 1922, Pl. one.

It may also be related to the adaptation of the city, which is built on a very rocky area, to the topography504. In Piraeus, known as the port city of Athens in continental Greece505 There was a similar situation. In the city with three ports, the agora is right next to these three ports. It is located right in the centre. This area is also located in the center of the peninsula on which the city was founded506. By terracing method on a sloping topography Founded in Rhodos, the city at the northern tip of the island had six ports, one in the north, one in the south and four in the east507. Agorada in the east of the city deployed close to port areas where they are seen collectively and It is connected to all ports with a grid plan system. Anatolia, Continent A similar situation exists in the geography outside Greece and the Islands. In Alexandria508, founded by Alexander the Great in the north of Egypt, the port It was located in the north of the city. The Agora was located in a central location in the middle of the public buildings, residential buildings and the port area, just south of the port509 .

In cities that do not have a port, the agora is placed in the center of the city and the city is called agora. While it was planned around the city, the system was different in port cities. In port cities The agora was still important and the city was again planned around the agora. But the agora Its place in the city plan was completely determined by the location of the ports. Miletus, Piraeus and In many ancient settlements with more than one port, such as in Rhodos, agora was built in the center of the ports. Agora primarily serves a commercial function.

---

[504] Although the city was planned around a central agora and the port remained outside this system, the port There may be places for commercial activities and even a port agora around it. should not be forgotten.

[505] It is one of the cities mentioned with Hippodamos, along with Piraeus, Thouroi and Rhodos. Aristotle (Aristotle, Pol. II. 1267b, 22, 1330b, 21) Hippodamus invented the division of cities and Piraeus states that he plans to The fortification of Piraeus as a port took place during the time of Themistocles. Themistocles, before Xerxes' invasion of Greece, used Piraeus instead of Phaleron for the Athenian navy. He determined it as the place to anchor (Thucydides I, 93). Fortification of Piraeus as a port and city plan See also for Boersma 1970, 46-50; Burns 1976, 421-428.

[506] Hoepfner – Schwander 1994, Fig. 14.

[507] Hoepfner – Schwander 1994, Fig. 41.

[508] Gerkan 1924, 67-71; Martin 1974, 116-117.

[509] Hoepfner – Schwander 1994, Fig. 225.

The one that had it had to be close to the port. In addition, it is also connected to other ports and main streets.
connection had to be provided. The area around the agora, which was shaped according to the location of the ports, was also
Public spaces and residential areas of the city, connected to the port and agora by main streets
was placed.

mouth, as in the examples of Herakleia Pontika, Halicarnassus and Alexandria.
around a bay used as a port with the arrangements made on its parts.
Planning was easier for established cities. Agora, near the port
It was built to be directly connected. Public spaces and residential areas
According to this planning, they would take their places around the agora.

In cities located on the coastline and with a regular planning, port
Regardless of the number, for the agora and other elements of the city in connection with the agora.
Ports are the determining factor.

Application of the System in Knidos

According to the results of the excavations carried out in Knidos, the reconstruction of the city
It was planned in B.C. A central agora structure from the 4th century could not be identified. With this
together with “E” and “D” in the north of the Military Port in the 2nd period excavations of Knidos.
The building between the churches is designated as agora in the city plan[510]. This
heart-shaped column used as spolia in the area and surrounding churches
drums and heart-shaped Doric capitals are also at least "L" shaped, surrounding the agora.
It points to a Doric stoa and suggests that there may be an agora in this area.
It supports. However, the details on the profiles of the Doric architectural blocks show that the
Agora will not date back to the Early Imperial Period. Because
In the urban planning made at the end of the Classical Period, the agora in question was
It doesn't have any function. However, the place of agora in urban planning
Even if we assume that there is only this agora in Knidos due to its location,
It is not possible to talk about an agora-centered city planning.

In the grid plan system, with its proximity to the port area, housing with public spaces
Considering the relationship between the areas, Knidos is the most suitable area in this sense.

---

[510] **Love 1968, Fig. 2.**

**It is seen as the Terrace of Dionysus (Pl. 60.1). Because this terrace is from the Military Port.
A direct connection was possible with a propylon, which also had a monumental fountain structure
next to it511 (Pl. 60.2). Its connection with the Trade Port is excavated in this area.
Although it is not clear because it has not been studied, it can be assumed that there is a similar transition.
The rows of shops to the east of the terrace also provide direct access to this terrace from the Trade Port.
shows that it is. However, in the middle of the terrace is Dionysus, who gave his name to the terrace.
The Temple and Altar reflect the idea of using this area as a central agora.
eliminates it. However, the rows of shops to the east of the terrace
It is a section indicating commercial activities on this terrace, which has direct access from the ports.**

**In the city, which does not have a central agora and consists of the mainland and Kap Krio,
ports as the center and in direct connection with both ports and
Dionysus Terrace, which contains spaces for commercial activities, is accepted.
should have been done. In terms of its topographic features, Dionysos terrace is the center
Taking over the city and ports is the most appropriate approach considering the city traffic.
Thus, convenient transportation was provided from both the mainland and the Kap Krio settlement.
It is the most active city of the city, whose economy depends on trade and therefore on the ports.
The region has also become a center in terms of urban planning. Otherwise,
will be planned around a center located on the mainland, especially on the upper terraces.
The general operation in the mainland section of the system is as smooth as in other port cities.
While operating, Kap Krio will remain outside this system and will contradict the principle of full
integration of all parts of the city in the Grid Plan system512 .**

**In the city consisting of three parts, the "Port", including the Dionysos Terrace, is located.
Public areas and residential areas taken as the center of the ports
It is located around. Thus, the port structures in Kap-Krio
and residential areas as well as public spaces and residential areas located on the mainland**

---

511 Özgan 2004, 208-209.

**512 Although Aristotle (Aristotle, Pol. II. 1267b, 22) said that Hippodamos invented the grid plan, studies
showed that the grid plan, especially in Western Anatolia, was invented in B.C. It was determined that it dates back to the 8th century.
has been made. Hippodamos brought a different design to this plan. General principle of Hippodamus' system
to ensure the full integration of different parts of the city. Especially built during the Classical Period
This innovation that Hippodamos brought to the system is seen in all of the cities examined (Owens 2000,
61-62).**

planned not too far from each other and using the grid plan system.

Thus, the general principle was complied with. The biggest reason for this unusual application is

While Knidos has its own topographic structure, urban planners also

They made the best use of topography.

6. EVALUATION AND CONCLUSION

Located at the tip of a long peninsula in the southwest of Anatolia.
Knidos was built on the mainland and the island opposite it called Kap Krio.
The mainland and Kap Krio are connected by an isthmus. Between this isthmus and the mainland and
Two bays were formed between Kap Krio and the entrances of the bays were built.
With the regulations, these bays were turned into ports. Located east of the ports
The area in the west was used as a Commercial Port and the area in the west was used as a Military Port.
Trade Port

Trading Port, west of the isthmus between the mainland and Kap Krio
There are. The port basin is shaped entirely according to topographic elements.
The port is naturally bordered by the mainland to the north and Kap Krio to the south, while the
Its border is the isthmus connecting the mainland and Kap Krio. The harbor mouth in the east is
It is completely shaped according to Kap Krio. Forming the entrance to the port
Among the breakwaters, the southern breakwater starts from the eastern end of Kap Krio.
Thus, it has the widest possible harbor basin according to topography.
has been made.

One of the most important structures of the Trade Port is the breakwaters. North and
These breakwaters, which we call the southern breakwater, date back to at least B.C. in
port engineering, with their underwater and above-water dimensions. What level was it in the 4th century?
It is very important to show. From 26-27 m depth on the sea floor
The breakwaters built by starting from
In order to increase the submerged structure, it is inclined upwards from the sea floor.
They were built using the masonry breakwater technique.

The first example of submerged masonry breakwaters dates back to B.C. It is found
in Tabbat el-Hamman in the 9th century513. B.C. The breakwater on the island of Delos, dated
to the 8th century, was made with the same technique514. The Eretrai breakwater dates back
to B.C. It is dated to the 7th century515. Apart from these examples, B.C. This type until the 2nd half of the 1st ce

---

[513] Braidwood 1940, 183-226.

[514] Blackman 2008, 642.

[515] Blackman 1982b, 196.

The construction of breakwaters continued516. Transfers from ancient sources, knitting
The breakwaters of the Trade Port of Knidos, which cannot be dated with the technique and
archaeological findings, date back to B.C. when the city was resettled. to the 3rd quarter of the 4th century
can be dated. However, this history does not go beyond terminus post quem.

The most important factor in naming the port as a Trade Port is Cape Town.
These are the dock areas located on the shores of Krio. Located in the southwest of the port and
The mooring rings placed inside the harbor wall are used for ships in this area.
noted as the place where they anchored and unloaded or loaded their cargo.
is suffering. It is located on the same line and was created by shaving the natural rock.
Dock areas are also very important in terms of showing the commercial activities of the city.

Any structure created by shaving natural rock
It is very difficult to date it. For this reason, just like the breakwaters, the dock areas date back
to B.C., the period when the city was resettled. to the 3rd quarter of the 4th century
can be dated. However, this date is still a terminus post quem. mooring mooring
The area where the rings are located is dated back to B.C., considering the knitting technique of the harbor walls. 4.
It is dated to the 3rd quarter of the century.

The most important building group regarding the organization of dock areas is the Cap
These are port structures located in Krio and built on terraces. Located in this area
Two of the three terraces are covered by rows of shops and one is covered by workshops. this structure
It starts on the 2nd terrace after the dock line of the complex and connects the dock and the building.
It is seen that a terrace was left empty between the complex. This terrace is on the dock
where docking ships unload and load their goods, as well as heavy goods such as timber and marble.
It must have been used as a platform on which the crane system used to lift loads was
installed517 .

---

[516] B.C. Developments in port engineering and the construction that developed as a result after the 2nd half of the 1st century
techniques, ports, just like theaters and stadiums, are free from adhering to the topographic structure.
saved (Raban 2009, 63).

[517] Most of the buildings in Knidos were built from local limestone and conglomerate blocks.
However, especially in the areas where public buildings are located, they are built entirely of marble.
are located in the buildings. Although the Caria Region is very rich in terms of marble quarries, this
The quarries are generally located in the north of the region. There is no marble around Knidos.
The quarry could not be identified. For this reason, there are places for buildings built of marble in the city.

As a result of the work carried out in the shops within the complex
Finds related to the commercial functions of the shops were unearthed. Besides the same
It was unearthed in sections reserved for storage in the area. In shops
The predominance of amphorae shows that Knidos was an important trade area for the export
of its famous wine and olive oil. In the workshops, Caria
The findings are mainly related to the wine production that we are used to seeing in the region.
However, wine production in the workshops does not have a commercial capacity.
It is not. Apart from wine production, the finds also show that fishing-related operations were
carried out. The small size of the workshops and the ability to produce commercial production
These areas are unlikely to be used for domestic consumption or for sailors using the port.
This indicates that there are production areas for

The dock areas along the coastline to Kap Krio and the area of Knidos
Considering its commercial volume, there are many more shops and
It is obvious that there is a need for areas such as storage areas, workshops, restaurants or taverns.
Excavation of only one insula in Kap Krio, the city built according to the hippodamic plan
completed. In this case, the dock towards the east from the excavated area
There should be similar building complexes parallel to their areas.

The port was used for the shipment of passengers as well as commercial activities.
should be. Considering its geographical location, Knidos can be reached by land even today.
Considering that it was quite troublesome to reach the city in ancient times,
It is very wrong to think that the departures are made entirely by sea.
It won't happen. In this case, it is clear that a pier will also be needed. Cape with Mainland
Located partly under sand on the eastern face of the isthmus connecting the Krio
A platform partially buried under the landfill must have been used for this purpose.

Covering an area of approximately 130,950 m², the port is an ancient city with its dimensions.
It can be considered a large-scale port among the ports of the era. However, the Kantharos
Port of Piraeus and the Port of Ephesus were built in 518 or during the Roman Period.

Marbles must be imported. Considering the location of Knidos, marble
It is thought that imports are made by sea.

[518] Groh 2006, 99, 105.

It is smaller than other large-scale ports519. But the ports are Mediterranean
It would not be a very accurate assessment to evaluate their place in trade by the size of their
port basins or the length of their dock areas. As a matter of fact, Side520 ,
Although **Phaselis or Alexandria Troas521 ports are small-scale ports,**
They have an important place in Mediterranean trade.

The harbor basin and harbor structures are constructed entirely according to topographic conditions.
has taken shape. Boundaries of the mainland and Kap Krio when determining the harbor basin
While the determining factor is the dock areas in general, the rocky coast of Kap Krio
It was created by shaving. In these respects, it is similar to the magnificent ports of the Roman Period.
It is not possible to compare. Ports of Leptis Magna, Carthage and Ostia are large
independent of topography, dock areas, warehouses, shelters, lighthouses,
They are magnificent ports that were planned and built with city walls and even temples.
Knidos Trade Port dates back to at least B.C. Late with its history dating back to the 4th century
It has an important place among the Classical Early Hellenistic Period Ports.

Military Port

The Military Port is a smaller port in the west of the isthmus. Trade
In order to make maximum use of the land in the Port according to the topographic conditions
The eastern end of Kap Krio forms the border of the harbor basin, while the Military Port
With the same idea, the western end of the mainland was evaluated to its last point and
The breakwater was built at this point and the border of the port was determined.

Military ports have a more closed structure than commercial ports.
As a necessity for this, the opening in the west of the harbor basin in Knidos is both
to strengthen the defense system and to control the port against the western winds.
It was closed with a wide breakwater to ensure intake.

The harbor entrance, which was narrowed down by a breakwater, was closed by building two towers facing each other.
has been brought under control. The entrance is located in the southwest corner of the breakwater and is located in this area.
Enemy ships that could reach this area thanks to the corridor formed were Kap Krio and
It was subjected to a powerful attack with catapults from the towers on the mainland.

---

[519] **For Ostia and Leptis Magna, see Shaw 1978, 14.**

[520] **Knoblauch 1977, 41-47, Fig. 5.**

[521] **Feuser 2010, 16.**

could be left. In the southwest corner of the breakwater adjacent to the west wall
A round tower (Round Tower 2) was built. This is a tower defense system
It must have been used as a lighthouse or signal tower rather than as a building. It
is placed on or around the breakwater, examples of which are seen in many ancient cities.
Using the built towers as signal towers or lighthouses
It is also seen in Knidos.

The fact that there are not enough excavations around the Knidos Military Port has caused some problems.
It also brought with it question marks. At this point, the biggest question mark is the military
Ships, which are almost an indispensable element of ports
They are shelters. No ship shelter has been identified in Knidos yet. But the port
allowing ships to shelter on the wide breakwater that covers its mouth.
The land structure has led us to suggest that there may be ship shelters in this area.
Another problem in the Military Port is the lack of a pier and the need to keep the ship crew from fighting.
The problem is determining where to board their ship. Military Port
The fact that the coasts were occupied with ship shelters resulted in military
The lack of piers and docks in ports causes similar problems in different ports.
developed in . The ports in this situation are Zea, especially in the ports of Piraeus.
and since there is no pier in Munuchia, the soldiers boarded the ships in Kantharos Port.
It has been suggested that he boarded from the piers. In this case the Trade Port in Knidos
It must be carried out from the pier located inside.

The city, which took its current form at the end of the Classical Period, was built in the Hellenistic Period.
It had a small navy throughout the wars and was part of ever-changing political
forces. B.C. In the 2nd and 1st centuries, major military powers
Rather, it must have been used to protect the city against pirate attacks.
Seleucids B.C. With the Peace of Apamea in 188, they largely lost their naval
power522 (Polyb., XXI 40-45; Diod., XXIX 10; Liv., XXXVIII 37-38 1-18; App.
Syr., 39; App. Mithr., 62), B.C. In 167, Rome's control in Caria and Lykia
By putting an end to the dominance of Rhodos and making Delos a free port
Piracy occurred in the vacuum of authority created by the decrease in the influence of Rhodos in the region.

---

[522] Starr 2000, 57; Arslan 2003, 91.

activities have increased considerably523. However, the navy in the Military Port was subjected to pirate attacks. There was not much success against it. Because many port cities and islands, including Knidos, were plundered524. In one of the buildings around the Military Port An inscription used as spolia documents the Piracy activities in this period and the fact that Knidos was greatly affected by it525 .

Military Port of Knidos, Greek “ÿÿµÿÿ ÿÿÿÿÿÿÿÿ” “Limen Kleistos”

It has the feature of a closed or closed port, known as. The first example of this type of port dates back to B.C. It forms the Port of Samos, dating back to the 2nd half of the 6th century. The closed ports of Piraeus date back to B.C. It is dated to the 5th century. These early exam Apart from this, the most intensive use of closed harbors coincides with the Hellenistic Period. Naval wars and political-economic conflicts in the Mediterranean were the most important factors in the ports becoming more protected during the Hellenistic Period526. Knidos The Military Port is an early example in this chronology. Also important Among the examples, today the phenomenon of "Closed" or "Closable Port" is the most It is an important and solid example.

---

[523] With the declaration of Delos as a free port, Rhodos' revenues increased from 1 million drachmas to 150 thousand drachmas. fell (Polybios XXX. 31. 10-12); (Starr 2000, 57, Arslan 2003, 91). This situation also affected Knidos. is of close interest. The trade of Rhodos, Knidos' biggest rival in the wine trade, The disruption of Delos after it was declared a free port increased the wine trade of Knidos and It enabled it to have a say in half of the Mediterranean market (ÿenol 2003, 35).

[524] Apart from Knidos, the cities of Kolophon, Klazomenai, Iasos and the islands of Samos, Delos and Samothrake are located in the same area. It was plundered during raids (Arslan 2003, 107-108, n. 129).

[525] The inscription contains a decree. In the decree, the Romans declared the pirates enemies of Rome and the friends and allies of the Romans. B.C. With this law in 101-99, the Romans all citizens, friends and allies to sail comfortably and safely in the Mediterranean. They promised to clear the seas of pirates. Therefore, the Romans Cyprus, The kings of Alexandria, Egypt, Cyrene and Seleucus and the Romans were friends and allies. They sent letters through the Rhodians to deliver them to the coastal cities. Here to them They should not allow pirates to use their kingdoms as bases and keep garrisons in their ports. It is recommended that they try to remove pirates from their own lands as much as possible. (Hassal et al. 1974, 195-220).

[526] Lehmann-Hartleben 1923, 65-74.

The trade that people started in ancient times through the exchange of goods gradually increased. By developing and diversifying, it has created a trade network that reaches from close distances to intercontinental distances. Maritime trade, which was known to exist before, especially in B.C. It showed rapid development on the Mediterranean coast as a result of Phoenician and Greek colonization, which began to be seen from the 8th century527. of trade In parallel with the development, ports began to be built on trade routes. has started. Knidos, with its important location on the Eastern Mediterranean trade route, The topographical advantages provided by the mainland and the island just in front of it It has become an important trade port with its use. city, trade port The dock areas on the shores of Kap Krio have a commercial function behind the docks. It is an important city with its harbor structures, famous wine, embossed ceramics and amphorae. It has become a trade centre. Knidos sealed amphora handles and embossed Distribution areas of ceramics and their finding rates in important centers It clearly shows the intensity of use of the Knidos trade port.

Considered within the "closed" or "closable" harbor phenomenon of Knidos military port, like other ports with similar characteristics in the Mediterranean basin It emerged as a result of intense political and economic competition in the Mediterranean, especially during the Late Classical Early Hellenistic Period528. Knidos during ancient times Although it is not an important political and military power, from Stabon's transfers As far as we know, it had a small navy. This makes the city an enemy In addition to the desire to protect against attacks, heavy commercial traffic, especially pirate It shows that it is trying to be protected against attacks.

Knidos, whose foundations were laid in the Archaic Period, developed throughout the Classical Period. An important part of the grid-planned city phenomenon, which completed its development in the Hellenistic Period. is an example. The city's ports and the Dionysos Terrace, which is directly connected to the ports, are the city's It is centrally located. Agoras in urban planning in regularly planned cities It was taken as the center and public areas and residential areas were surrounded by the agora. was being placed. In determining the locations of agoras in port cities, Ports are the determining factor. The same situation applies to Knidos. in Knidos

---

[527] Collins 1984, 14-18; Halloway 1981, 21.

[528] Lehmann-Hertleben 1923, 65-74.

Both the Dionysos Terrace in the city center, public areas and residential buildings

The locations of the areas are completely shaped according to the ports.

Located at the tip of a long peninsula in the southwest of Anatolia.

The most important factors in choosing the location of Knidos were that it was easy to defend and that it was located near the acropolis.

a peninsula suitable for its location, an island close to the mainland and between the island and the mainland

It has bays that allow port construction. City, Anatolia

Although it is located on the mainland, due to its location,

The islands surrounding Caria Region rather than its mainland cities

is like a member of the group. This situation means that the city is completely dependent on the sea.

Therefore, it has become dependent on ports. The ports of Knidos, at least B.C. From the

2nd half of the 4th century to the 6th-7th AD. its importance for centuries

They were used without loss. The city lost its former importance after this period.

Although it continued to exist until the 12th century AD according to episcopal lists

It has lost its former importance due to the loss of importance of the ports.

Abbreviations and Bibliography

The abbreviations used in this section refer to American Journal of Archeology Vol. 111, No. 1, 2007, 3-34 and cited in Archäologischer Anzeiger 1997, 611-628 was used in the format .

Altunel et al. 2003	**E. Altunel-IS Stewart, A. Barka, L. Pÿccardi, "Earthquake Faulting at Ancient Cnidus, SW Turkey", *Turkish Journal of Earth Sciences,* Vol. 12, 2003, 137-151.**
Alzinger 1976	**W. Alzinger, "Anaskafai Aigeiras", *Arkhailogika Analekta Athenon 7,* 1976, 157-162.**
Appianus	**Appianus, Rhomaika, Appian's Roman History I-IV, (Trans. H. White), 1912-1913.**
Archontidou-Argyri 1987	**A. Archontidou, "Fouilles de Thasos" *BCH* 111, 1987, 622-626.**
Archontidou-Argyri et al. 1989	**A. Archontidou-Argyri-A. Simossi-J. empereur, "The Underwater Excavation at the Ancient Port of Thasos, Greece", *IJNA* 18.1, 1989, 51-59.**
Aristotle	**Aristotle, Politics, The State of the Athenians, (Trans. F. Akderin), Istanbul 2005.**
Arslan 2003	**M. Arslan, "BC. From 188 BC. Until 67 Lykia, Pamphylia and Cilicia Trakheia Piracy Activities on Their Coasts: Causes and Results ". *Adalya* VI, 2003, 91-118.**
Arslan 2005	**M. Arslan, *Ariannus's Black Sea Travel,* Istanbul 2005.**
Artzy 1990	**M. Artzy, "Tel Nami, Land and Sea Project", *Israeli Exploration Journal* 40, 1990, 73-76.**
Artzy 2004	**M. Artzy, "The Underwater Project at Limantepe, Summer 2003", *Newsletter of the Recanati***

Institute for Maritime Studies, **University of Haifa, 2004, 17-21.**

Leo 2011 **TO. Aslan, *Kekova Region Ports* (Unpublished Doctoral Thesis), Konya 2011.**

Aupert–Masson 1979 **P. Aupert-O. Masson, “1'Ecole a Amathonte”, *BCH* 103 1979, 721-761.**

Aydas 2010 **M. Aydaÿ, *M.Ö. Relations Between Caria and Rhodes from the 7th to the 1st Century,* Istanbul 2010.**

Bailey 1975 **D. M. Bailey, *A Catalog of the Lamps in the British Museum I. Greek, Hellenistic and the early Roman pottery Lamps,* London, 1975.**

Bailey 1988 **D. M. Bailey, *A Catalog of the Lamps in the British Museum III. Roman and Provincial Lamps,* London, 1988.**

Baldoni et al. 2004 **D. Baldoni, C. Franco, P. Belli, F. Berti, *ÿasos, A Port City in Caria,* (Trans. G. Ergin), Istanbul, 2004.**

Bartoccini 1958 **R. Bartoccini, “Il Porto Romano de Leptis Manga”, *BCSSA Supplement* 13, Rome 1958.**

Basile et al. 1988 **B. Basile, G. Di Stefano, G. Lena, “Landings, Ports, Coastal Settlements and Coastlines in Southeastern Sicily, from Prehistory to Late Antiquity”, *Archeology of Coastal Changes* (Ed. A. Raban), 1988, 15-34.**

bass 1972 **GF Bass, “The Earliest Seafarers in the Mediterranean and the Near East”, *A History of Seafaring Based on Underwater Archeology* (Ed: GF Bass), London 1972, 1-35.**

bass 1975 **GF Bass, “Underwater Survey- 1973”, *TAD* 22.2, 1975, 33-38.**

bass 1986	**GF Bass, "A Bronze Age Shipwreck at Ulu Nose (Nov): 1984 Campaign", *AJA* 90, 1986, 269-296.**
Bass 1991	**GF Bass, "Evidence of Trade from Bronze Age Shipwrecks", *Bronze Age Trade in the Mediterranean. Studies in Mediterranean Archeology,* Vol. XC (Ed. N. Gale), 1991, 69-82.**
Bean–Cook 1952	**GE Bean-JM Cook, "The Cnidia", *BSA* 47, 1952, 171- 212.**
Bean–Cook 1957	**GE Bean-JM Cook, "The Carrien Coast III", *BSA* 52, 1957, 58- 146**
bean 2000	**GE Bean, *Beyond the Menderes in Ancient Times* (Trans. P. Kurtoÿlu), Istanbul, 2000.**
Beaufort 2002	**F. Beaufort, *Karamanya* (Trans. A. Neyzi-D. Türker), Antalya, 2002.**
Beaver 1973	**P. Beaver, *A History of Lighthouses.* Secaucus, N.J. 1973.**
Benndorf–Niemann 1884	**O. Benndorf-G. Niemann, *Reisen im Südwestlichen Kleinasien, I: Reisen in Lykien und Karien,* Wien 1884.**
Bent 1888	**J.Th. Bent, "Discoveries in Asia Minor", *JHS* 9, 1888, 80-92.**
Berges – Danube 1990	**D. Berges-N. Tuna, "Ein Heiligtum bei Alt-Knidos", *AA* 1990, 19-35.**
Bernard–Goldvin 1995	**A. Bernard-J.C. Goldvin, *Alexandrie: luminiere du monde antiquite,* Dijon, 1995.**
Bingöl 1997	**O. Bingöl, *Malerai und Mosaik der Antike in der Türkei,* Maizn, 1997.**
Bittel 1942	**K.Bittel, Kleinasiatische Studien, Istanbuler Mitteilungen, *Heft 5,* Istanbul, 1942.**
Blackman 1966	**DJ Blackman, "The Harbors of Perachora",**

Bulletin of the Society of Antiquaries 61, 1966, 192-194.

Blackman 1973a DJ Blackman, "The Harbors of Phaselis", *IJNA* 2.2, 1973, 355-364

Blackman 1973b DJ Blackman, "Evidence of Sea Level Change in Ancient Harbors and Coastal Installations." *Marine Archeology* (Ed. DJ Blackman), Bristol, Colston Papers 23. 115-139.

Blackman 1973c DJ Blackman, "The Neosoikos at Matala", *Proceedings of the third Cretological Congress, 1971,* Vol. I, Athens, 1973, 14-21.

Blackman 1976 DJ Blackman, "Bristol University Expedition to Camarina: Preliminary Report", 1976, 607-615.

Blackman 1978 DJ Blackman, "Researches at Phaselis", *The Proceeding of the Xth International Congress of Classical Archeology,* II, Ankara-ÿzmir, 23-30/IX/1973, 1978, 829-839.

Blackman 1982a DJ Blackman, "Ancient Harbors in the "Mediterranean". Part 1, *IJNA* 11.2, 1982, 79-104.

Blackman 1982b DJ Blackman, "Ancient Harbors in the "Mediterranean". Part 2, *IJNA* 11.3, 1982, 185-221.

Blackman 1989 DJ Blackman, "Some Problems Of Ships Operation In Harbour", *Tropis III, IIIrd International Symposium on Ship Construction in Antiquity,* Athens 24th-27th August 1989 (Ed. H. Tzalas). Hellenic Institute or the Preservation of Nautical Tradition, 1989, 73-81.

Blackman 1990 DJ Blackman, "Triremes and Shipsheds" *Tropis II, 2nd International Symposium on Ship Construction in Antiquity,* Delphi, August 27-29, 1987 (Ed. H. Tzalas), Athens, 1990, 35-51.

Blackman et al. 1996	**DJ Blackman-P. Knoblauch-A. Yiannikouri, "Die Schiffhauser am Mandrakihafen in Rhodos" *AA* 1996, 371-426.**
Blackman–Lentini 2003	**DJ Blackman-MC Lentini, "The Port of Sicilian Naxos and the Ancient Urban Landspace", *Proceedings of the XVIth International Congress of Classical Archeology,* Boston, 23-26 August 2003 (Ed: CC Mattusch, AA Donohue, A. Brauer), Boston: 546-550.**
Blackman 2008	**DJ Blackman, "Sea Transport, Part 2: Harbors" *The Oxford Handbook Engineering and Technology in The Calassical World* (Ed: JP Oleson), Oxford 2008, 638-670.**
Blackman 2010	**DJ Blackman, "The Rhodian Fleet and the Karian Coast", *Hellenistic Caria* (Ed. R. Van Bremen-JM Carbon), Bourdeaux 2010, 379-392.**
1997	**LK Blue, Cyprus and Cilicia: The Typology and Paleogeography of Second Millennium Harbors (Ed. S. Swiny-RL Hohlfelder-HW Swiny), *ASOR Archaeological Reports* No. 4, CAARI Monography Series 1, Atlanta, 1997, 31-44.**
Blümel 1999	**W. Blümel, 'Epigraphische Forschungen in Knidos", VII. *AST,* Ankara, 1999, 233-237.**
Boersma 1970	**JS Boersma, *Athenian Building Principles, from 561/0 to 405/4 BC,* Gröningen, 1970.**
Boyce 1958	**AA Boyce, "The Harbor of Pompeiopolis: A Study On Roman Imperial Ports and Dated Coins" *AJA* 62, 1958, 67-78.**
Bradford 1956	**J. Bradford, "Aerial discoveries in Attica and Rhodes", *AntJ* 36, 1956, 333-355.**
Bradford 1957	**J. Bradford, *Ancient Landscapes:* Studies Field**

	Archeology, London, 1957.
Braidwood 1940	**RJ Braidwood, Report on two soundings on tlic coast of Syria south of Tartous. *Syria* 21,183-226.**
Brandon et al. 2010	**C. Brandon-RL Hohlfelder-JP Oleson-NK Rauh-R. Yaÿcÿ, "The Roman History of Soli/Pompeiopolis Period Port: ROMACONS 2009 Land Studies, *Anmed Anatolian Mediterranean Archeology News* 2010-8, 195-198.**
Breccia 1909	**E. Breccia "Di Alcuni frammenti di vasi, Société Arc. BS(R) *AA.* 11, Alexandria, 1909, 298-320.**
Bruns-Ozgan 2002	**C. Bruns-Özgan, *Knidos. Ancient City Guide,* Konya, 2002.**
Bruns-Ozgan 2006	**C. Bruns-Özgan, "Knidos", Stadtgrabungen und Stadtforschung im westlichen Kleinasien, (Ed. W. Radt), *Byzas* 3, Istanbul 2006, 167-177.**
Bruno 1973	**VJ Bruno, "An ancient Roman port in the Archipelago Toscano", *IJNA* 2.2, 1973, 365-369.**
Burns 1976	**A. Burns, "Hippodamus and the Planned City", *History* 25, 414-428.**
Cahn 1970	**HA Cahn, *Knidos. Die münzen des 6. und 5.Jhs. v.Chr.,* Berlin, 1970.**
Cankardeÿ-ÿenol 2006	**G. Cankardeÿ-ÿenol, *Sealed Amphora Producing Centers and Sealing Systems in the Classical and Hellenistic Period,* Istanbul, 2006.**
Carter 1978	**RS Carter, "The Submerged Seaport of Aperlae, Turkey" *IJNA* 7, 1978, 177-185.**
Casson 1971	**L. Casson, *Ships and Seamanship in the Ancient World,* Princeton 1971.**
Casson 1995	**L. Casson, "A Trireme for Hire", *The Classical Quarterly, New Series,* Vol. 45, No. 1, 1995, 241-245.**

Casson 2002 — **L. Casson, *Maritime and Ships in Ancient Times,* (Trans. G. Ergin), Istanbul 2002.**

Castagnoli 1971 — **F. Castagnoli, *Orthogonal Town Planning in Antiquity,* Massachusetts 1971.**

Ceylan 2010 — **MA Ceylan, "On the Coasts of Türkiye A General Review of Tombolos with Urban Settlements Gaze", *Marmara Geography Magazine* 23, 352-372.**

Chapot 1906 — **V. Chapot, "Seleucie de Piérie" *Bulletin de la Société Nationale des Antiquaries de France,* 1906, 149-226.**

Collins 1984 — **J. Collins, *The European Iron Age,* London 1984.**

Cook–Richardson 1905 — **B. Cook – W. Richardson, "Triremes", *The Classical Review,* Vol. 19, No. 7, 1905, 371-377.**

Cook 1961 — **RM Cook, "Cnidian Peraea and Spartan Coins", *JHS* 81, 1961, 56-98.**

Cousin 1898 — **G. Cousin, "Voyage en Carie", *BCH* 22, 1898, 361-382.**

Croix 1972 — **H. de la Croix, *Military Considerations in City Planning: Fortifications,* New York, 1972.**

Çevik et al. 2011 — **N. Çevik – S. Bulut – HO Tÿbÿkoÿlu – B. Özdilek – Ç. A. Aygün, "Myra and Andriake Excavations 2009: The First Year, 32nd *KST* Volume 1, Ankara 2011, 403-420.**

Daszewski 1981 — **W.A. Daszewski, "Port glowni I przystanie pomocnincze Nea Paphos swietle obserwacji podwodnych", *Meander* 6, 1981, 327-336.**

Davaras 1967 — **K. Davaras, Eis neosoikos para ten Seteian, *Arhaiologike Ephemeris,* Athens, 1967, 84-90.**

Davidson–Yorke 1969 — **D P Davidson – R .A. Yorke, "Roman Harbors of Alegria", *Underwater Association Report,* 1969, 8-21.**

De la Blanchere 1881 R. De la Blanchere, Le Port de Terracine. histoire et Archkologie. *MPlanges d'ArchPologie et d'Histoire,* I, 1881, 322-348.

Diler 1995 A. Diler, "Ancient Age Olive and Grape Presses in the Mediterranean Region 1993", XII. *AST,* 1994, Ankara 1995, 443-455.

Dinsmoor 1950 WB Dinsmoor, *The Architecture of Ancient Grece,* London 1950.

Diodorus Diodorus Siculus, Bibliotheke Historike, Diodorus of Sicily (trans. RM Geer), 1947.

Doger 1991 E. Doÿer, *Amphoras in Ancient Times,* Istanbul 1991.

Ninety-six 2006 E. Doksanaltÿ, *Kap Krio Excavation Site* (Unpublished Doctoral Thesis), Konya, 2006.

Doksanaltÿ et al. 2011 E. Doksanaltÿ, E. Aslan, ÿ. M. Mimiroÿlu, Giresun Province and Giresun Island Archaeological Surface Research: 2009, 28. *AST,* Volume 2, Ankara, 2011, 143-162.

Dunbabin 2003 KMD Dunbabin, *Mosaics of The Greek and RomanWorld,* Cambridge 2003.

Élaigne 1998 S. Élaigne, Alexandrie. Étude préliminaire d'un contexte céremique du Haut- Empire, *Alexandria* I, 1998.

Élaigne 2002 S. Élaigne, "L'Introduction des céramiques fines hellenistiques du bassin de la Méditerranée à Alexandria. Importations et imitations locales, ceramiques hellenistiques at romaines", *Production et diffusion en Méditerranée orientale* (Ed. F Blondé, P Ballet, J.- F. Salles), Paris 2002, 159-173.

Empereur – Verlinden 1987 JY Empereur – C. Verlinden, "The underwater

	excavation at the Ancient port of Amathus in Cyprus", *IJNA* 16. 1, 1987, 7-18.
Empereur – Simossi 1990	**JY Empereur – A. Simossi, "Thasos, le port", *BCH* 114, 1990, 881-887.**
Erel et al. 2005	**L. Erel, A. Aytaç, N. Çaÿatay, "Türkiye Establishment and Development of Ancient Ports on the Coasts "The Effect of Surface Shapes on Their Development", *National Geography Congress 2005,* 29-30 September 2005, Istanbul, 542-545.**
Erol – Pirazzoli 1992	**O. Erol – PA Pirazzoli, "Seleucia Pieria: An Ancient Harbor Submitted to Two Successives Uplifts", *IJNA* 21/4, 1992, 317-327.**
Erol 2008	**AF Erol, "The Port Illustration on the flor mosaic of the Yakto Villa" (Ed. JP Darmon), *JMR* Vol.1-2, 2008, 39-44.**
Euzennat 1976	**M. Euzennat, "Les fouilles de la Bourse a Marseille", *Comptes Rendus-Academie des Inscriptions and Belles-Lettres,* Paris 1976, 529-552.**
Euzennat 1980	**M. Euzennat, "Ancient Marseille in the Light of Recent Excavations", *AJA* 84, 1980, 133-140.**
Faber 1980	**A. Faber, "Osor-Apsorus izaspecto antickog pomerstva" *Diadora* 9, 1980, 289-317.**
Faber 1981	**A. Faber, "Luka antickog fulfina na otoka Krku", *Pomorski Zbornik 19,* 1981, 293-314.**
Favro 2006	**D. Favro, "The iconiCITY of ancient Rome" *Urban History* 33, 1 Cambridge, 2006, 20-38.**
Felici 1998	**E. Felici, "La ricerca sui porti romani in cementicio: methodi e obiettivi", *Archeologia Subacquea, come opera l'archeologo sott'acqua storie dale acque* (Ed. G. Volpe), 1998, 275-340.**

Feuser 2009	**S. Feuser, *Der Hafen von Alexanria Troas,* Bonn, 2009.**
Feuser 2010	**S. Feuser, "The Roman Harbor of Alexandria Troas, Turkey", *IJNA* 40.1, 2010, 1-18.**
Flemming 1972	**NC Flemming, *Cities in the Sea,* London 1972.**
Flemming 1980	**NC Flemming, "Structures Underwater", *Archeology Underwater* (Ed. K. Muckelroy), London, 1980, 164-175.**
Friedman – Zoroÿlu 2006	**Z. Friedman – L. Zoroÿlu, "Kelenderis Ship-Square or Late Sail", *IJNA* 35.1, 2006, 108-116.**
Frost 1966	**H. Frost, "The Arward Plans 1964, A Photogrammetric Survey of Marine Installations", *Annales Archeologique de Syrie 16,* 1966, 13-22.**
Frost 1972	**H. Frost, Ancient Harbors and Anchorages in the EasternMediterranean. *Underwater Archeology, a Nascent Discipline,* Paris-London 1972, 95–114.**
Frost 1973	**H. Frost, "The Offshore Island Harbor at Sidon and other Phoenician Sites in the Light of New Dating Evidence", *IJNA* 2.1, 1973,75-94.**
Frost–Hadjidaki 1990	**F J. Frost – E. Hadjidaki, "Excavation at the Harbor of Phalasarna in Crete: The 1988 Season", *Hesperia* 59.3, 1990, 513-527.**
Frost 1995	**H. Frost, "Harbours and Proto-Harbours; early Levantine Engineering", *Proceedings of the International Symposium. Cyprus and the Sea,* (Ed: V. Karageorghis-D. Michaelides), Nicosia 1995, 1-22.**
Garland 1987	**R. Garland, *The Pireus,* London, 1987.**
Georgiades 1907	**AS Georgiades, "Les Ports de la Grece dans l Antiquite qui Subsistent Encore Aujourd" Hui, Athenes, 1907.**

Gerkan 1915 **A.von Gerkan, Der Poseidon Altar Bei Kap Monodendri, *Miletus I, IV,* (Ed. T. Wiegand), Berlin 1915.**

Gerkan 1924 **A.von Gerkan, *Griechische Städteanlagen,* Leipzig, 1924.**

Gerkan 1935 **A.von Gerkan, Die Stadtmauern, *Miletus, II. 3,* (Ed. T. Wiegand), Berlin, 1935.**

Gerkan 1959 **A.von Gerkan, *Von Antike Architektur und Topographie: Gesammelte Aufsätze,* (Ed. E. Boehringer), Stuttgart, 1959.**

Grace 1961 **V. Grace, *Amphoras and Ancient Wine Trade,* Agora PicBk., Princeton, 1961.**

Grace – Petropoulakou 1970 **V. Grace – MS Petropoulakou, "Les timbres amphoriques Grecs", *Exploration Archeologue de Delos XXVII,* L'llot de la Maison des Comediens, Paris, 1970.**

Groh 2006 **S. Groh 2006, Neue Forschungen zur Stadtplanung in Ephesos, *Jahreshefte des Österreichischen Archäologischen Institutes in Wien* 75, 2006, 47-116.**

Günther 1903 **RT Günther, "The submerged Greek and Roman foreshore near Naples", *Archaeologia 58.2,* 1903, 499-560.**

Hadjidaki 1988 **E. Hadjidaki, "Preliminary Report of Excavations at the Harbor of Phasarna in West Crete", *AJA* 92, 1988, 463-479.**

Hadjidaki – Stefanakis 2004 **E. Hadjidaki – M. Stefanakis, "Secrets of Phalasarna. Critiko Panorama", *Minoa Editions,* Athens, Greece, 2004, 101-135.**

Halloway 1981 **RR Halloway, *Italy and the Aegean, 3000-700 BC, Louvain,* 1981.**

Hamilton 1842 W.J. Hamilton, ***Researches in Asia Minor II,*** **1842.**

Hassal et al. 1974 M. Hassal – M. Crawford – J. Reynolds, "Rome and the Eastern Provinces at the End of the Second Century B.C. The So-Called 'Piracy Law' and a New Inscription from Cnidos", ***JRS*** **64, 1974, 195-220.**

Hayes 1997 JW Hayes, ***Handbook of Mediterranean Fiction Pottery,*** **London, 1997.**

head 1897 BV Head, ***Catalog of the Greek Coin of Caria,*** **Cosi Rhodes in British Museum, London, 1897.**

Held 2006 W. Held, "Loryma", Stadtgrabungen und Stadtforschung im westlichen Kleinasien, (Ed. W. Radt), ***Byzas*** **3, Istanbul 2006, 187-197.**

Herodotus Herodotus, Historia, Herodotus History, (Trans. A. Erhat), Istanbul, 1973.

Hill 1932 DK Hill, "Boundary Stones from the Pireus", ***AJA*** **36, 254-259.**

Hoepfner – Schwander 1994 W. Hoepfner – EL Schwandner, ***Haus und Stadt im Klassischen Griechenland,*** **Munich 1994.**

Hohlfelder 1985 RL Hohlfelder, "The Building of the Novel Harbor at Kencherai: Old Technology in a New Era", Harbor Archaelogy (Ed. A. Raban), ***BAR International Series 257,*** **Oxford 1985, 81-86.**

Hohlfelder 1988 RL Hohlfelder, "Procopius, De Aedificis", 1.11.18-20: Caesarea Maritima and the Buildings of Harbors in Late Antiquity, ***Mediterranean Cities,*** **1988, 54-62.**

Hohlfelder–Vann 1998a RL Hohlfelder – RL Vann, "Uncovering the Secrets of Ancient Aperlae: A Coastal Settiement of Ancient Lycia", ***Near Eastern Archeology 61.1,*** **1998, 26-37.**

Hohlfelder–Vann 1998b RL Hohlfelder – RL Vann, “Survey of Classical Harbors in Turkey” *AJA* 102.2, 1998, 367-368.

Hohlfelder–Vann 2007 RL Hohlfelder – RL Vann, “Constructing the Harbor of Caesarea Palaestina, Israel: New Evidence From the Romacons Field Campaign of October 2005”, *IJNA* 36 .2: 2007, 409–415.

Hue–Pelon 1991 M. Hue – O. Pelon, “Malia et la mer, Thalassa, l'egree prehistorique et la mer” (Ed. R. Laffineur-L. Basch), *Aegeum* 7, 1991, 117-128.

Hurst 1979 H. Hurst, “Excavations at Carthage: Fourth Interim Reports”, *Antiquaries Journal* 59/1, 1979, 19-49.

Isserlin 1971 BSJ Isserlin, “New Light on the “Cothon” at Motya”, *Antiquity* 145, 1971, 178-186.

Isserlin 1974 BSJ Isserlin, “Cothon at Motya: Phoenician harbor Works”, *Archeology* 27.3, 1974, 188-194.

Light 2006 F. Iÿÿk, “Patara 2005 Excavation and Restoration Studies”, 28. *KST,* Volume 1, 2006, 15-28.

Jondet 1912 G. Jondet, “Les ports antiques de Pharos” *BSRAA* 14, 1912, 252-266.

Jones 1985 K. Jones, *Pharos. The Lighthouses Yesterday, Today and Tomorrow,* London, 1985.

Judeich 1931 W. Judeich, *Topography von Athen,* Munich, 1931.

Karlsson 1994 L. Karlsson, “Thoughts About Fortifications in “Caria From Maussollos to Demetrios Poliorketes”, *Fortifications et Défense du Territoire en Asie Mineure Occidentale et Méridionale,* (Ed. P. Debord-R. Descat), Bordeaux, 1994, 141-154.

Kingsley–Raveh 1994 SA Kingsley – K. Raveh, "A Reassessment of the Northern Harbor of Dor, Israel" *IJNA* 23.4, 1994, 289-295.

knoblauch1969 P. Knoblauch , "Neuere Untersuchungen an den Häfen von Ägina", *BJb* 169, 1969, 104-116.

Knoblauch 1972 P. Knoblauch , "Die Hafenanlagen der Stadt Ägina", *Adelt* 27A, 1972, 50-85.

Knoblauch 1974 P. Knoblauch, "Eine neue topographische aufnahme des Stadtgebietes von Kyme in der Aeolis", *AA* 1974.2, Berlin, 1974, 285-291.

Knoblauch 1977 P. Knoblauch, Die Hafenanlagen und die anschliessenden Seemauern von Side, Untersuchungen in der gegend von Antalya, Ankara 1977.

Kondis 1954 ID Kondis, *Symbole eis ten metelen tes rhythmotomias tes Rhodou,* Athens, 1954.

Kondis 1958 ID Kondis, "Zum antiken Stadtbauplan von Rhodos", *MDAI* (A) 73, 146-158.

Kozelj – Wurch-Kozelj 1989 T. Kozelj – M. Wurch-Kozelj, "Phares de Thasos" *BCH* CXIII, 1989, 161-181

Kraft 1972 K. Kraft, *System der kaiserzeitlichen Münzprägung in Kleinasien,* Berlin, 1972.

Krischen 1913 F. Krischen, "Festunsstudien in Karien und Ionian", *AA.* 28, 1913. 476-490.

Krischen 1922 F. Kirschen, Die Befestigungen von Herakleia am Latmos, *Miletus III. 2,* (Ed. T. Wiegand), Berlin 1922.

Lanciani 1897 R. Lanciani, *Ruins and Excavations of Ancient Rome,* London-New York, 1897.

Launey 1933 M. Launey. "Inscriptions de Thasos", *BCH* 57, 1933, 394-410.

Leake et al. 1840	**WM Leake-W. Gell-F. Bedford, *Antiquities of Ionia,* London, 1840.**
Lehmann-Hartleben 1923	**K. Lehmann-Hartleben, Die antiken Hafenanlagen Des Mittelmeeres: Beiträge Zur Geschichte des Städtebaus im Altertum, *Klio* Beiheft 14, Leipzig 1923.**
Leshnik 1968	**LS Leshnik,"The Harappan "Port" at Lothal: Another View" *American Anthropologist,* New Series 70.5, 1968, 911-922**
Linder 1967	**E. Linder, "La ville phénicienne d'Athlit at-elle eu l'un des plus anciens ports artificiels du Méditerranee", *Archaéologia* 17, Paris 1967, 25-29.**
Linder 1987	**E. Linder, The Maritime Installation of Tharros (Sardinia), A Recent Discovery, *Revista di Stidi Fenici* XV/1, 1987, 47-55.**
Little 1977	**J. H. Little, "Harbors and Settlements in Cyrenaica", *Society for Libyan Studies, Annual Report* 9, 1977, 43-45.**
Livy	**Livius, Ab Urbe Condita, Roman History (Trans. S. ÿenbark), 1992.**
Love 1968	**IC Love, Knidos- Excavations in 1967, *TAD* XVI. II, 1968, 133-159.**
Love 1970	**IC Love, "A Preliminary Report of the "Excavations at Knidos 1969", *AJA* 74, no. 2, 1970, 149-155.**
Love 1972a	**IC Love, "A Preliminary Report of the "Excavations at Knidos 1970", *AJA* 76, no. one, 1972, 61-76.**
Love 1972b	**IC Love, "A Preliminary Report of the "Excavations at Knidos 1971", *AJA* 76, no. 4,**

1972, 393-405.

Love 1973 — IC Love, “A Preliminary Report of the Excavations at Knidos, 1972, *AJA* 77, no. 4, 1973, 413-424.

Love 1974 — IC Love, “Excavations at Knidos 1972”, *TAD.* XXI. 2, Ankara 1974, 68-129.

Love 1978 — IC Love, “A Brief Summary of Excavations at Knidos 1967-1973”, *The Proceeding of the Xth International Congress of Classical Archeology,* II, Ankara-ÿzmir, 23-30/IX/1973, 1978, 1111-1133.

Maiuri 1921 — A. Maiuri, Annuario della Scuola d'Atene 4/5, 1921/1922, 1921.

Mandel 1988 — U. Mandel, *Kleinasiatische Reliefkeramik der mittleren Kaisezeit, die 'oinophorengruppe' und Verwandtes, PF* 5, Berlin, New-York, 1988.

Marsden 1969 — EW Marsden, *Greek and Roman Artillery, Historical Development,* Oxford, 1969.

Martin 1974 — R. Martin, *L'Urbanisme dans la Grèce antique,* Paris, 1974.

Mattingly 1985 — DJ Mattingly, “Olive Oil Production in Novel Tripolitania”, Town and Country in Novel Tripolitania, (Ed. DJ Buck-DJ Mattingly), *BAR* International Series 274, 1985, 27-46.

McCann et al. 1987 — AM McCann – J. Bourgeois – EK Gazda – J. P. Oleson – EL Will, *The Roman Port and Fishery of Cosa: a Center of Ancient Trade,* Princeton University Press, 1987.

McCredie 1971 — JR McCredie, “Hippodamos of Miletos”, *Studies Presented to GMA Hanfmann,* Mainz, 1971, 95-one hundred.

McNamara–Wilkes 1967 — **E. McNamara – W .St. J. Wilkes, "Underwater Exploration of the Ancient Port of Nora", *Papers of the British School at Rome 35,* 1967, 4-12.**

McNicoll 1986 — **A. W. McNicoll, "Developments in Techniques of Siegecraft and Fortification in the Greek World 400-100 BC" *Leriche and Treziny,* Paris, 1986.**

McNicoll 1997 — **AW McNicoll, *Hellenistic Fortifications From the Aegean to the Euphrates,* Clarendon Press, Oxford, 1997.**

Meiggs 1960 — **R. Meigs, *Roman Ostia,* Oxford 1960.**

Meiggs 1973 — **R. Meigs, *Roman Ostia,* Oxford 1973.**

Mengarelli 1900 — **R. Mengarelli, "Terracina. Pietro di ormeggio, scolpita, rinvenuta presso il molo dell'antico port". *Notizie degli Scavi di Antichita:* 1900, 635-638.**

Mert 2002 — **ÿ. H. Mert, "Der korinthische Tempel von Knidos", *AA* 2002/2, 9-22.**

Mert 2005 — **ÿ. H. Mert, "Knidos Corinthian Temple", *A Gift to Ramazan Özgan,* (Ed. M. ÿahin-ÿ. H. Mert), Istanbul 2005, 229-248.**

Morrison et al. 2000 — **JS Morrison – JF Coates – NB Rankov, *The Athenian Trireme: The History and construction of an ancient Greek warship.* CambridgeUniversity Press, 2000.**

Murray 1985 — **WM Murray, "The Ancient Harbor of Palairos", Harbor Archeology (Ed. A. Raban), *BAR International* Series 257, Oxford, 1985, 67-80.**

Müller 1997 — **D. Müler, *Topographischer Bildkommentar zu den Historien Herodotus, Kleinasien.* Tübingen, 1997.**

Negris 1904	**P. Negris, "Vestiges antiques submerges", *AM* 29, Berlin, 1904, 340-363.**
Newton 1863	**C. T. Newton, *A History of Discoveries at Halicarnassus, Cnidus, and Branchidae II,* 1862/63.**
Newton 1865	**C. T. Newton, *Travels and Discoveries in the Levant II,* London, 1865.**
Nicolaou 1966	**K. Nicolaou, "The Topography of Nea Paphos", *Melanges Offerts a K. Michalowski* (Ed. ML Bernhard), Warsaw, 1966, 561-602.**
Nicolaou 1976	**K. Nicolaou, "The Historical Topography of Kition", *Studies in Mediterranean Archeology* 43. 1976, 75-99.**
Nieto–Raurich 1997	**P. Nieto – X. Raurich, Le commerce de cabotage et de redistribution, Navigation dans l'Antiquite (Ed. P. Pomey), *Aix en Provenece,* 1997, 146-158.**
Oleson 1977	**JP Oleson, Underwater Survey and Excavation in the Port of Pyrgi (Santa Severa) 1973, *Journal of Field Archeology* 4/3, 1977, 297-308.**
Oleson et al. 1984	**JP Oleson – RL Hohlfelder – A. Raban – RL Vann, "The Caesarea Ancient Harbor Excavation Project (CAHEP): Preliminary Report on the 1980-1983 Seasons" *Journal of Field Archeology,* Vol. 11, No. 3, 1984, 281-305.**
Oleson 1988	**J. P. Oleson, "The Technology of Novel harbours" *IJNA,* 17.2, 147-57.**
Oleson et al. 2004	**JP Oleson – C. Brandon – S.M. Cramer – R. Cucitore – E. Gotti – RL Hohlfelder, "The ROMACONS Project: a Contribution to the Historical and engineering analysis of Hydraulic "Concrete in Roman Maritime Structures" *IJNA***

33.2, 2004, 199-229.

Owens 2000 — EJ Ovens, *The City in the Greek and Roman World,* (Trans. Cana Bilsel), Istanbul 2000.

Preview 2012 — H. Öniz, *Ancient Ports on the Coasts of Antalya Province According to Their Locations and Uses Anchorages,* (Unpublished Ph.D. Thesis), Konya 2012.

Özdaÿ 1995 — H. Özdaÿ, "The Port Phenomenon in Ancient Times", *Studies on Ancient Near Eastern Cultures,* (ÿ. M. Akyurt-B. Continuation Memoir Book) (Ed: A. Erkanal), ÿstanbul 2005, 259-266.

Ozgan 1990 — R. Özgan, "1988 Knidos Excavation Preliminary Report", XI. *KST.* II, Ankara, 1990, 167-175.

Ozgan 1991 — R. Özgan, "1989 Knidos Excavation", XII. *KST.* II, Ankara, 1991, 57-68.

Ozgan 1992 — R. Özgan, 1990 Knidos Excavation, XIII. *KST.* II, Ankara, 1992, 171-188.

Ozgan 1995a — R. Özgan, "1991 Knidos Excavation", XV *KST.* II. Ankara 1995,161-168.

Ozgan 1995b — R. Özgan, "Knidos 1992 Study Report", XV. *KST.* II. Ankara 1995,169-188.

Ozgan 1996 — R. Özgan, "Knidos 1993", XVI. *KST.* II. Ankara 1995, 297-314.

Ozgan 1997 — R. Özgan, "1995 Knidos Excavations Report", XVIII. *KST.* II., Ankara 1997, 273-296.

Ozgan 1998 — R. Özgan, "1996 Knidos Excavations, XIX. *KST.* II, Ankara 1998, 133-150.

Ozgan 1999 — R. Özgan, "1997 Knidos Excavation", XX. *KST.* II, Ankara 1999, 205-214.

Ozgan et al. 2000 — R. Özgan-C. Özgan-M. ÿahin-C. Berns, "Knidos 1998", 21. *KST* 2, Ankara 2000, 115-132.

Ozgan et al. 2001	**R. Özgan – C. Özgan – C. Berns – H. Mert, "Knidos 1999", 22. *KST* 2, Ankara 2001, 95-112.**
Ozgan et al. 2002	**R. Özgan – C. Özgan – I. Jenkins – H. Mert, "2000 Knidos Excavations", 23. *KST* 2, Ankara 2002, 351-364.**
Ozgan 2003	**R. Özgan, "2001 Knidos Excavations", 24. *KST* 2, Ankara 2003, 359-372.**
Ozgan 2004	**R. Özgan, "2002 Knidos Excavations", 25. *KST* 2, Ankara 2004, 205-216.**
Ozgan 2005	**R. Özgan, "2003 Knidos Excavations", 26. *KST* 1, Ankara 2005, 235-248.**
Ozgan 2007	**R. Özgan, "2005 Knidos Excavations", 28. *KST* 2, Ankara 2007, 649-668.**
Ozgan 2008	**R. Özgan, "2005 Knidos Excavations", 29. *KST* 1, Ankara 2008, 107-126.**
Ozgan 2009	**R. Özgan, "Old-New Knidos Problem", *Archeology and Art Magazine,* Issue 132, 2009, 93-112.**
Özgümüÿ 2000	**Ü. Özgümüÿ, *Anatolian Glasswork,* Istanbul, 2000.**
pausanias	**Pausanias, Periegesis tes Hellados, Pausanian Description of Greece IV (Trans. WH Jones), 1918-1935.**
Pagenstecher 1913	**R. Pagenstecher, "Calena", *JDI* XXVII, 1912, 146-173.**
Papageorgiou et al. 1993	**S. Papageorgiou – M. Arnold – SC Stiros, "Seismic Uplift of the Ancient Harbor of Aigeria, Central Greece", *IJNA* 22/3, 1993, 275-281.**
Parker 1868	**JH Parker, *Historical photographs of Rome and ZtaZy, Egypt,* Greece etc. 95 Poltfolios. Reading Room, Ashmolean Museum, Oxford.**
Parker 1878	**JH Parker, *The primitive fortifications of the city***

of Rome, 2nd ed. Oxford-London 1878.

Pastutmaz 2009 D. Pastutmaz, *Knidos Embossed Ceramics* (Unpublished Doctoral Thesis), Konya 2009.

Pastutmaz 2011 D. Pastutmaz, "Die Ikonographie des Dionysos auf Knidischen Oinophoroi", Studien zum antiken Kleinasien VII (Ed. E. Schwertheim), *AMS* 66 (Bonn 2011), 97-105.

Peacock–Williams 1991 DPS Peacock – DE Williams, *Amphrae and the Roman Economy,* London 1986.

Pedersen 1994 P. Pedersen, "The Fortifications of Halicarnassus", *Fortifications et Défense du Territoire en Asie Mineure Occidentale et Méridionale,* (Ed. P. Debord-R. Descat), Bordeaux, 1994, 215-236.

Pedersen 2010 P. Pedersen, "The City Wall of Halicarnassos", *Hellenistic Caria* (Ed. R. Van Bremen-JM Carbon), Bourdeaux 2010, 269-316.

Penfield 1957 W. Penfield, Proceedings of the American Philosophical Society 101, 1957, 393-416.

Peschlow 1994 A. Peschlow, "Die Befestigungen Von Latmos", *Fortifications et Défense du Territoire en Asie Mineure Occidentale et Méridionale,* (Ed. P. Debord-R. Descat), Bordeaux, 1994, 155-172.

Philipson 1915 A. Philippson, Reisen und Forschungen im westlichen Kleinasien V. Karien sudlich des Mäander und das westliche Lykien, *Petern. Mitt. Erg. Heft* 183, Gotha, 1915.

Pimouquet 1994 I. Pimouguet, "Les Fortifications De La Pérée Rhodienne", *Fortifications et Defense du Territoire en Asie Mineure Occidentale et Méridionale,* (Ed. P. Debord-R. Descat), Bordeaux, 1994, 243-272.

Pirazzoli 1987 P. A. Pirazzolli, "Submerged Remains of Ancient Megisti in Castellorizo Island (Greece): a Preliminary Survey", *IJNA* 16.1, 1987, 57-66.

Pirazzoli et al. 1992 PA Pirazzoli – J. Ausseil-Badie – P. Giresse – E. Hadjidaki – M. Arnold, "Historical Environment Changes at Phalasarna Harbour, Western Crete", *Geoarchaeology* 7/4, 1992, 371-392.

Pliny Plinius Caecilius Secundus, Naturalis Historia, Natural History IX, (Trans. HR Rackham-WH S. Jones-DE Eichholz), 1971.

Poidebard 1939 PA Poidebard, *Cayeux, Lucien, Un rand port disparu, Tyre; Recherches aériennes et sous-marines 1934-1936,* Paris 1939.

Poidebard–Lauffray 1951 PA Poidebard – J. Lauffray, *Sidon Amenagements antiques du port de Saida. Etudes aeriennes, au sol, et sous-marines, 1946-1950,* Beirut, 1951

polybius Polibios, Historiai, The Histories, (Trans. WR Paton), 1922.

Pritchett 1943 WK Pritchett, *The five Attic Tribes after Cleisthenes,* Baltimore 1943.

Pritchard 1971 JB Pritchard, "The Roman Port at Sarafand (Sarepta), Preliminary Report on Seasons of 1969 and 1970", *Bulletin de Musee de Beyrouth 24,* 1971, 39-56.

Psarianos 1948 PZ Psarionas, "O arkhaios limen tes Avlidos", *Polemon* 3, 1948, 155-160.

Pulak 1988 C. Pulak, "The Bronze Age Shipwreck at Ulu Nose: 1985 Campaign," *AJA* 92, 1988, 1-37.

Pulak 2006 C. Pulak, "Uluburun Wreck", *Uluburun Ship, World Trade 3000 Years Ago* (Ed. Ü. Yalçÿn-C.

Pulak-R. In the slot), Bochum, 2006, 57-104.

Raban–Linder 1978 **A. Raban – E. Linder, "Akko: harbor and bay. Caesarea: the Herodian harbour. Doric: a Hellenistic shipyard", *IJNA* 7.3, 1978, 238-243.**

Raban 1981 **A. Raban, Some archaeological evidence for ancient maritime activities at Dor, *Sefunim* 6, Haifa, 1981, 15-26.**

Raban–Hohlfelder 1981 **A. Raban – RL Hohlfelder, "The Ancient harbors of Caesarea Maritima", *Archeology* 34.2, Boston, 1981, 56-60.**

Raban 1985a **A. Raban, "The Ancient Harbors of Israel in Biblical Times (From the Neolithic period to the End of the Iron Age)", Harbor Archeology: Proceedings of the First International Workshop on Ancient Mediterranean Harbors Caesera Maritima, *BAR* International Series 257: (Ed. A. Raban), 1985, 11-44.**

Raban 1985b **A. Raban, "Caesarea Maritima 1983-1984" *IJNA* 12.4, 1985, 155-177.**

Raban 2009 **A. Raban, The Harbor of Sebastos(Caesarea Maritima) in its Roman Mediterranean Context (Ed. M. Artzy-B. Goodman-Z. Gal), *BAR* International Series 1930, Oxford, 2009.**

Rao 1962 **SR Rao, "Further excavations at Lothal", *Lalit Kala:* 11-12, New Delhi 1962,14-30.**

Reden 1995 **SV Reden, "The Piraeus-A World Apart" *Greece & Rome,* 2nd Ser., Vol. 42, No. 1. 1995, 24-37.**

Rice 1995 **EE Rice, Grottoes on the Acropolis Hellenistic Rhodes, *BSA* Vol. 90, 383-404.**

Rice 1999 **EE Rice, "Settlement and Fortifications in the Rhodian Peraia in the Hellenistic Age", *POÿÿÿ***

2.400 XPONIA, **Athens, 1999.**

Rickman 1985 **GE Rickman, "Towards a Study of the Novel Ports", Harbor Archeology (Ed. A. Raban), *BAR* International Series 257, Oxford, 1985, 105-114.**

Rollo 1934 **W. Rollo, "Ostia," *Greece & Rome,* Vol. 4, No. 10, 1934, 40-53.**

Ross 1843 **L. Ross, *Reisen auf den griechischen Inseln des ägäischen Meers 2,* 1843**

Rostovtzeff 1953 **Rostovtzeff, *The Social and History of the Hellenistic World,* Oxford, Vol. I-III., Oxford, 1953.**

Rumscheid 2000 **F. Rumscheid, *Guide to Priene, Pompeii of Asia Minor,* Istanbul, 2000.**

Salies 1980 **GH Salies, "Neue Römische Mosaiken in Deutschland Beitrage zur Chronogie des 3. Jahrhunderts" *III. Colloquio Internazionale sul Mosaico Antico,* 1980, 335-356.**

Salles 1993 **JF Salles, "Les Niveaux Hellenistique", *Kition Bamboula* IV, Paris 1993.**

Sanders 1978 **NK Sandars, *The Sea Peoples. Warrios of the Ancient Mediterranean 1250-1150,* London 1978.**

Savile 1941 **LH Savile, "Ancient Harbours", *Antiquity* 15, 1941, 209-232.**

Schäfer 1962 **J. Schäfer-H. Schläger, "Zur Seeseite von Kyme in der Aeolis", *AA* 1962.4, Berlin, 1962, 40-57.**

Schäfer 1967 **J. Schäfer, "Beobachtungen zu den seeseitingen Mauern von Larymna in der Lokris", *AA* 1967.4, Berlin, 1967, 527-545.**

Schäfer 1974 **J. Schäfer, "Zur Erforschung antiker Hafenanlagen", *Mélanges Mansel* 1974, 663-678.**

Schede 1964 **M. Schede, *Die Ruinen von Priene,* Berlin, 1964.**

Schläger et al. 1968 — **H. Schläger – DJ Blackman – J. Schäfer, "Der Hafen von Anthedon", *AA* 1968.1, Berlin 1968, 21-98.**

Schläger 1971 — **H. Schläger, "Die Texte Vitruvs im Lichte der Untersuchungen am Hafen von Side", *BJb* 171, 1971, 150-161.**

Schläger et al. 1981 — **H. Schläger – DJ Blackman – H. Bremer – J. Christen – P. Knoblauch – J. Schäfer, Phaselis: Beiträge zur Topographie und Geschichte der Stadt und Ihrer Häfen", *IstMitt* Beiheft 24, Tübingen 1981.**

Scoufolopos–McKernan 1975 — **NC Scoufolopos – JA McKernan, "Underwater Survey of Ancient Gythion", *IJNA* 4/1, 1975, 103-116.**

Shaw 1969 — **W. J. Shaw, "A Foundation in the Inner Harbor at Lechaeum", *AJA* Vol.73, No:3, (1969), 370-372.**

Shaw 1972 — **WJ Shaw, "Greek and Roman Harbors Works", *A History of Seafaring Based on Underwater Archeology* (Ed. GF Bass), London 1972, 87-102.**

Shaw 1978 — **JW Shaw, "The Harbour", *Kenchreai-Eastern Port of Corinth,* Vol. 1, (Ed. R. Scranton – L. ÿbrahim – R. Hohfelder – B. Adamscheck – H. Williams – WO Stern), 1978.**

Shaw 1984 — **J. W. Shaw, "Excavations at Kommos (Crete) "during 1982-1983", *Hesperia* 53, 1984, 251-287.**

Shaw 1986 — **J. W. Shaw, "Excavations at Kommos (Crete) "during 1984-1985", *Hesperia* 55, 1986, 219-269.**

Shear 1920 — **TL Shear, *Art and Arcaeology* 9, 1920, 197**

Simossi 1991 — **A. Simossi, "Underwater Excavations Research in the Ancient Harbor of Samos: September-**

October 1988", *IJNA* 28/4, 1991, 281-298.

Smith–Morrison 1974 DC Smith – IA Morrison, "The Buried Lagoon and Lost Port of Sipontum", *IJNA* 3/2, 1974, 275-281.

Salomonson 1969 J. W. Salomonson, "Spätrömische rote Tonware mit Reliefverzierung aus nortafrikanischen Werkstätten", *BABesch* 44, 1969, 4-109.

Spratt 1886 TAB Spratt, "Remarks on the Dorian Peninsula and Gulf", *Archaeologia* 49, 1886, 347-365.

Stager 1976 LE Stager, "Excavations at Cartage 1975, First Interim Report: The Punic Project", *Annual of the American School of Oriental Research* 43, 1976, 151-170.

Stelle 1965 LA Stelle, *La civiltà micenae nei documenti contemporanei,* 1965.

Stillwell 1976 R. Stillwell, The Princeton Encyclopedia of Classical Sites, 1976.

Stiros et al. 1996 S. Stiros – P. Pirazzoli – R. Rothaus – S. Papageorgiou – J. Laborel – M. Arnold, "On the Date of Construction of Lechaion, western Harbor of Ancient Corinth, Greece", *Geoarchaeology: An International Journal,* Vol. 11, No. 3, 1996, 251-263.

Starr 2000 CG Starr, *Sea Power in Antiquity,* (Trans. G. Ergin), Istanbul 2000.

Strabo Strabon, Geographika: Ancient Anatolian Geography, (Trans. A. Pekman), Istanbul 2000.

Sudhoff 1927 K. Sudhoff, *Kos und Knidos,* Munich, 1927.

Sahin et al. 2008 M. ÿahin – S. Gündüz – E. Aslan, "Myndos Underwater Researches", 25. *AST,* Volume 1, 2008, 1-10.

ÿahin – Gündüz 2010 M. ÿahin – S. Gündüz, Kyzikos Underwater

Research, 2008, 27. *AST* Volume 3, Ankara, 2010, 179-183.

Senol 2003 **K. ÿenol, *Marmaris Museum Commercial Amphoras,* Ankara 2003.**

Takmer 2006 **B. Takmer, *Lex Portori Provinciae Lyciae: Lycia State Customs Law,* (Unpublished Ph.D. Thesis) Antalya, 2006.**

Takmer 2008 **B. Takmer, "Lex Portori Provinciae Lyciae Ein Vorbericht über die Zollinschrift aus Andriake aus neronischer Zeit " *GEPHYRA,* Band 4, 2007, 165-188.**

Taylor 1965 **J. P. Taylor, *Marine Archeology,* London 1965.**

Testaguzza 1964 **O. Testaguzza, "The Port of Rome" *Archeology* 17.3, 1964, 173-179.**

Testaguzza 1970 **O. Testaguzza, *Portus,* 1970.**

Texier 1849 **C. Texier, *Geography, History and History of Asia Minor Archeology,* (Trans. A. Suat), Ankara 2002.**

Theodoulou – Memos 2007 T. Theodoulou – C. Memos, "A voyage to Ancient Greek Harbors on board Limenoscope", *Water Science & Technology: Water Supply* Vol 7, No 1, Q IWA Publishing, 2007, 253-260.

Scythe 1988 **AA Tÿrpan, "Myndos and Theangele", V. *AST* I, 1988, 167-190.**

Scythe 1990 **AA Tÿrpan, "Knidos Acropolis Walls", VIII. *AST,* 1990, 429-456.**

Tigrel 1975 **G. Tigrel, "An Ancient Port in Alanya Region", *Belleten* 39, 1975, 613-632.**

Traill 1975 **JS Traill, The Political Organization of Attica, *Hesperia Supplement* XIV, Princeton 1975.**

Troxell 1982 **HA Troxell, *The Coinage of the Lycian League,* New York 1982.**

Tüner Önen 2007	**N. Tüner-Önen, New Localizations in the Settlement Geography of Lycia, Istanbul 2007.**
Wachsmann 1998	**S. Wachsmann, *Seagoing Ships & Seamanships in the Bronze Age Levant,* London 1998.**
Vann 1991	**R.L. Vann, "The Drusion: a candidate Herod's lighthouse at Caesarea Maritima", *IJNA* 20.2, 1991, 123-139.**
Vann–Hohlfelder 1998	**RL Vann – RL Hohlfelder, "Survey Of Classical Harbors In Turkey The 1996 Season At Aperlae In Lycia" XV. *AST,* Volume 2, Ankara 1998, 423-435.**
Vann et al.1997	**RL Vann – RL Hohlfelder – S. Sachs – H. Elton – R. Caser, "Survey of Classical Harbors in Turkey" *AJA* 101.2, 1997, 377.**
Vann–Hohlfelder 1999	**RL Vann – RL Hohlfelder, "Survey Of Ancient Harbors In Turkey: 1997 Season At Aperlae In Lycia" XVI. *AST,* Volume 2, 1999, 443-460.**
Vermeule 1962	**C. Vermeule, "The Colossos of PortoRafti in Attica", Hesperia 31, 1962, 62-81.**
vitruvius	**Vitruvius, De Architectura Libri Decem, Ten Books on Architecture, (Trans. S. Güven), Ankara 1990.**
Ward-Perkins 1974	**J.B. Ward-Perkins, *Cities of Ancient Greece and Italy: Planning in Antiquity,* London, 1974.**
Ward-Perkins 1993	**J.B. Ward-Perkins, The Severan Buildings of Leptis Magna, *Society of Lybian Studies* Monograph No. 2, London, 1993.**
Wells–Lohmann 1992	**B. Wells – H. Lohmann, *Agriculture in Ancient Greece,* London, 1992.**
Wicherley 1945	**RE Wicherley, "Priene and Modern Planning", *Greece and Rome,* Vol. 14, No. 40, 1945, 12-16.**

Wicherley 1964 — **RE Wicherley, Hippodamus and Rhodos, *Historia* 13, 1964, 135-139.**

Wicherley 1976 — **RE Wicherley, The Princeton Encyclopedia of Classical Sites "Pireus", 1976, 684-690.**

Wicherley 1993 — **RE Wicherley, *How Were Cities Founded in Ancient Times?* (Trans. N. Nirven-N. Baÿgelen), Istanbul 1993.**

Wiegand–Schrader 1904 — **T. Wiegand – H. Schrader, *Priene,* Berlin 1904.**

Williams 1976 — **P.F.C. Williams, "Roman Harbours", *IJNA* 5.1, 1976, 73-79.**

Winter 1994 — **FE Winter, "Problems of Tradition and Innovation in Greek Fortifications in Asia Minor, Late Fifth to Third Century BC", *Fortifications et Défense du Territoire en Asie Mineure Occidentale et Méridionale,* (Ed. P. Debord-R. Descat), Bordeaux, 1994, 29-52.**

Yÿldÿrÿm – Gates 2007 — **B. Yÿldÿrÿm – MH Gates, "Archaeology in Turkey, 2004-2005", *AJA* 111, 2007, 275-356.**

Yon 1998 — **M. Yon, "Ougarit et le port de Mahadou/Minet el-Beida", Res Maritimae-Cyprus and the Eastern Maditerranean, from Prehistory to Late Antiquity (Ed. S. Swiny-RL Hohlfelder-HW Swiny), *ASOR Archaeological Reports* 4, CAARI Monograph Series 1, Atlanta, 1998, 357-369.**

Yorke 1967 — **A.Yorke, "Les ports engloutis de Tripolitaine et de Tunuise", *Archeologia* 17, 1967, 18-24.**

Zimmermann 2003 — **M. Zimmermann, "Hafen und Hinterland. Wege der Akkulturation an der lykischen Küste. Vorbericht über die Feldforschungen in den zentrallykischen Orten Tyberissos und Timiussa in den Jahren 1999-2001" *ÿstMitt* 53, Tubingen 2003,**

265-312.

Zoroÿlu 1994 **L. Zoroÿlu, “Kelenderis on a Mosaic Description of *Anatolian Civilizations in 1993 Museum Conferences,* Ankara 1994, 31-45**

Zoroÿlu 1996 **L. Zoroÿlu, “Kelenderis Mosaic”, *Çaÿlar Settlement and Housing in Anatolia Throughout International Symposium,* 5–7 June 1996, *(International Symposium on Settlement and Housing in Anatolia Through the Ages,* 5–7 June 1996), 1996, 513–524.**

Zoroglu 2006 **L. Zoroÿlu, “The Kelenderis Ship: A Late Sail” *IJNA* 35.2, 2006, 326-335.**

List of Sheets

Plate 59:

Figure 1: Liman Street Connecting the Port Area with Public Areas

Figure 2: Theater Street, which connects the Port Area to the Upper Terraces

Plate 60:

Figure 1: Terrace and Stoa of Dionysus

Figure 2: Entrance of Dionysus Terrace on the Military Port Side

sheets

Plate 1

Figure 1: Caria Region

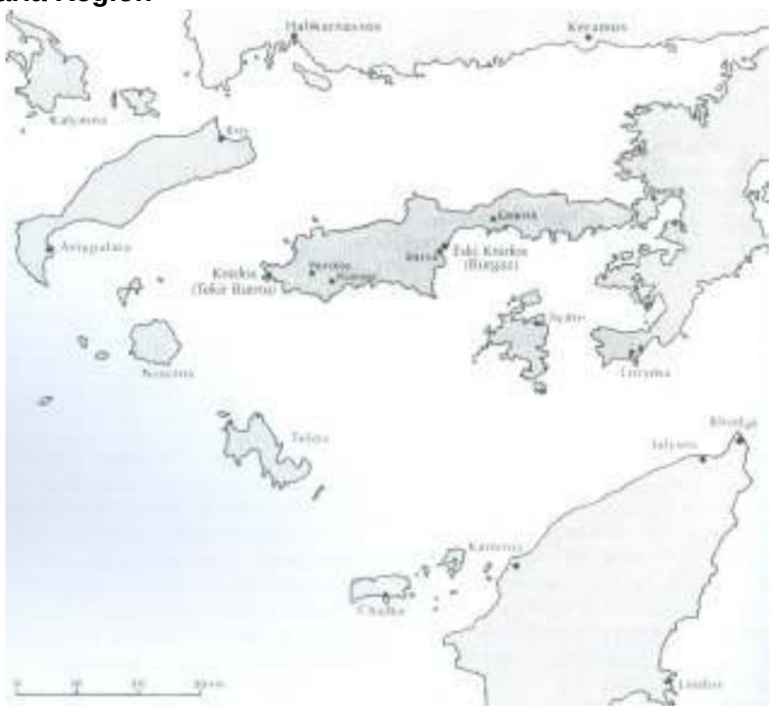

Figure 2: Datça Peninsula and Doric Hexapolis

Plate 2

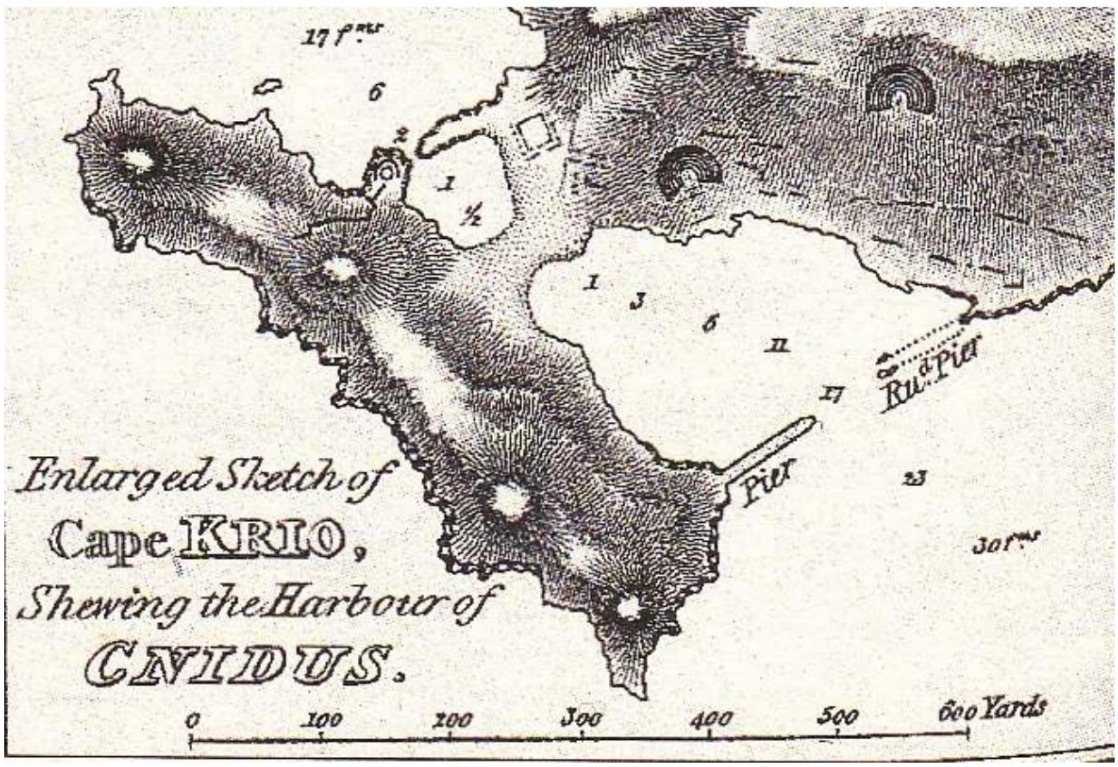

Figure 1: Beaufort's Knidos City Plan

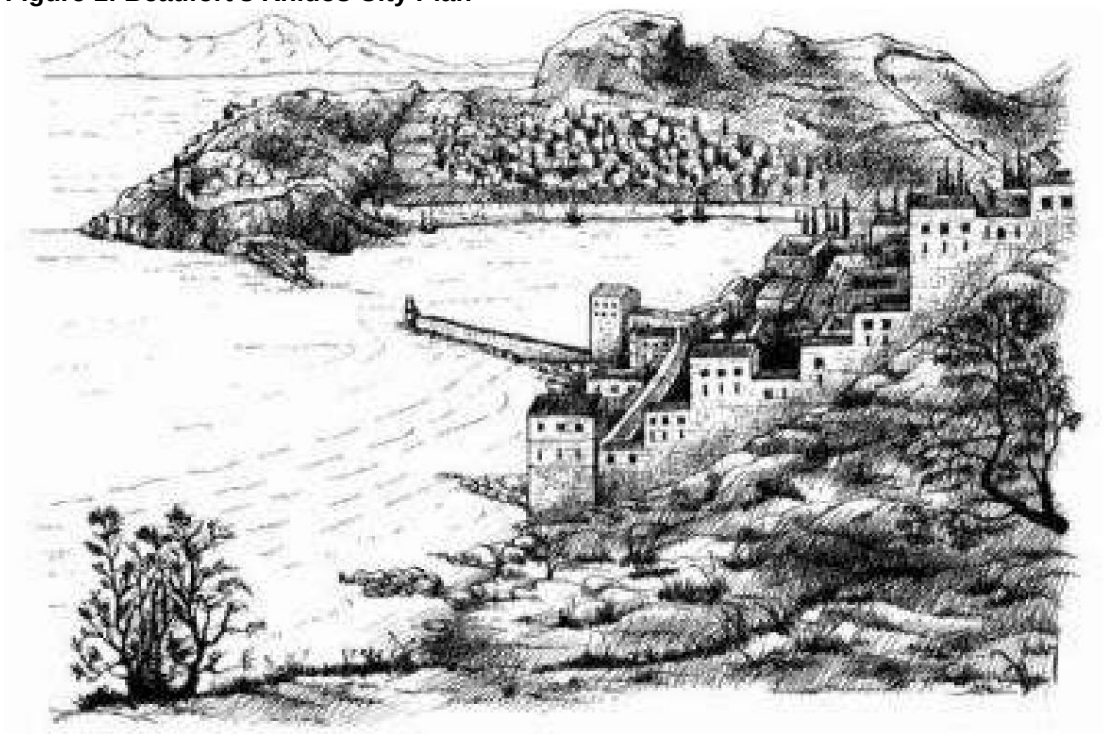

Figure 2: Knidos Drawing by the Dilettanti Community

Plate 3

Figure. 1: Newton's Knidos City Plan

Figure 2: Gerkan's Knidos City Plan

Plate 4

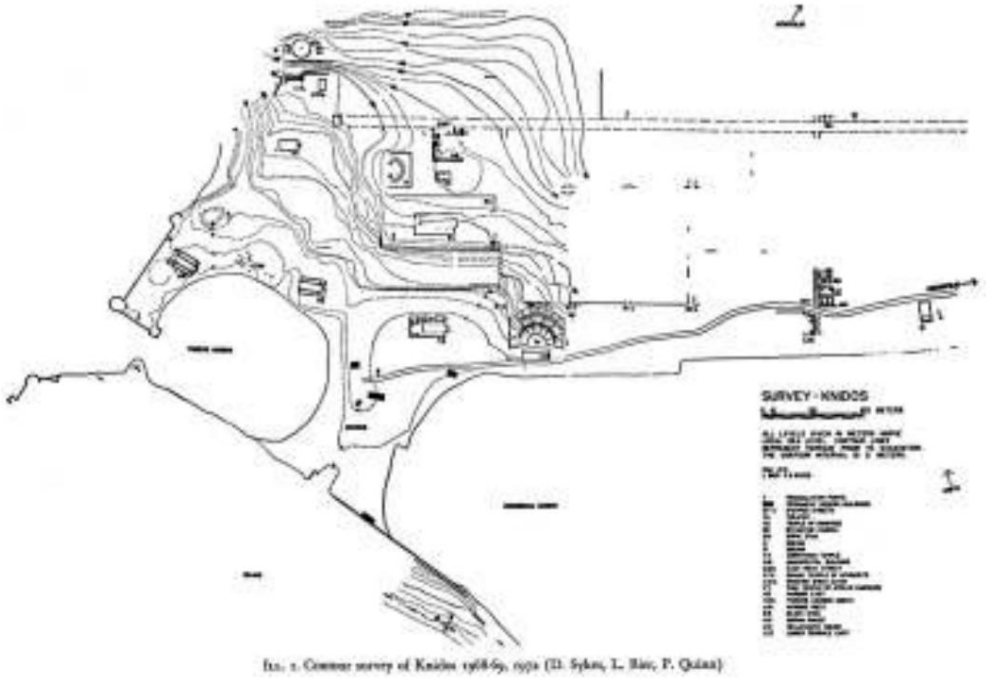

Fig. 1. Contour survey of Knidos 1968-69, 1971 (D. Sykes, L. Bier, P. Quinn)

Figure. 1: Love's Knidos City Plan

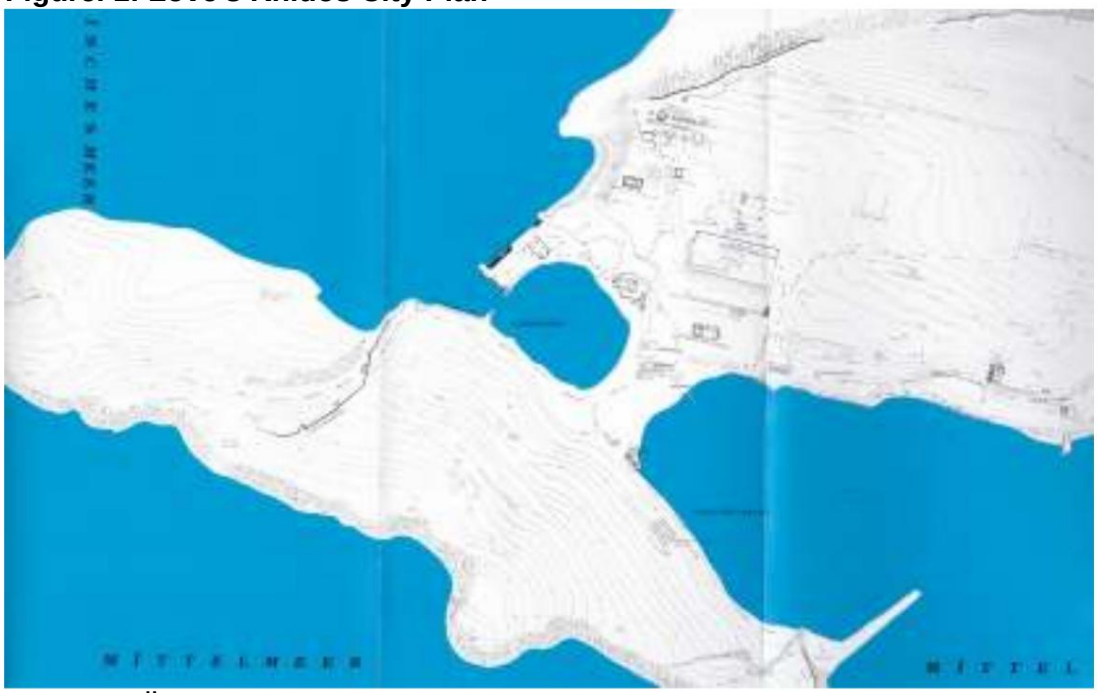

Figure 2: Özgan's Knidos City Plan

Plate 5

Figure 1: Mainland and Kap Krio, where Knidos was founded

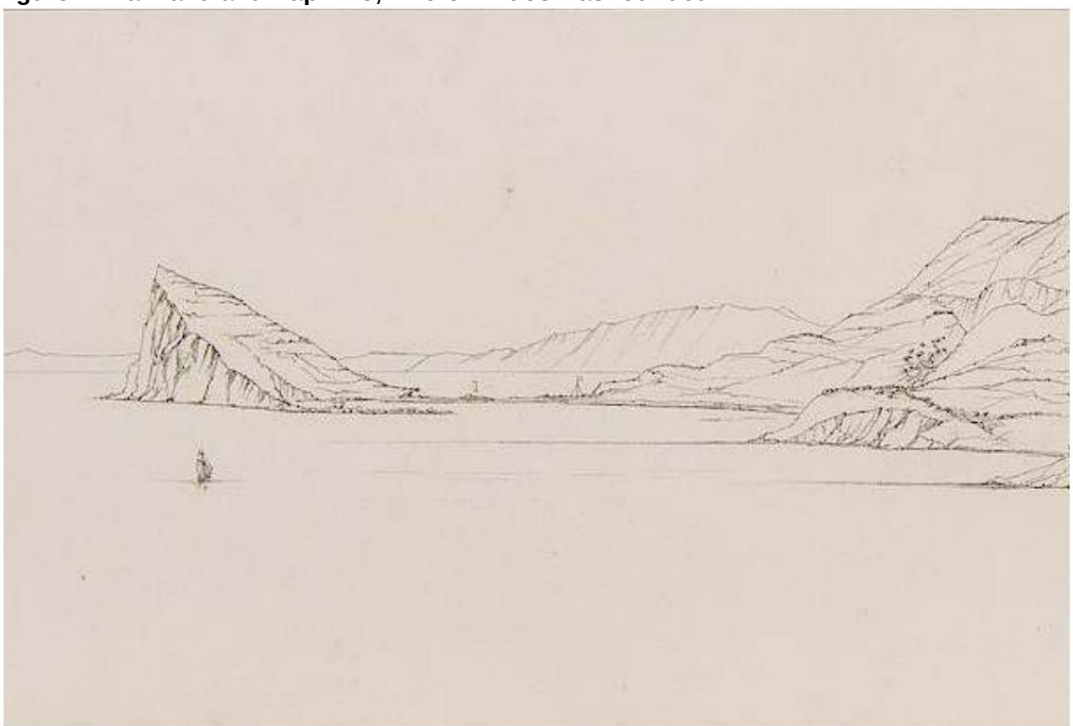

Figure 2: Newton's Engraving of the Mainland and Cap Krio

Plate 6

Figure 1: Mainland, Cape Krio and Ports

Figure 2: Mainland, Cape Krio and Ports

Plate 7

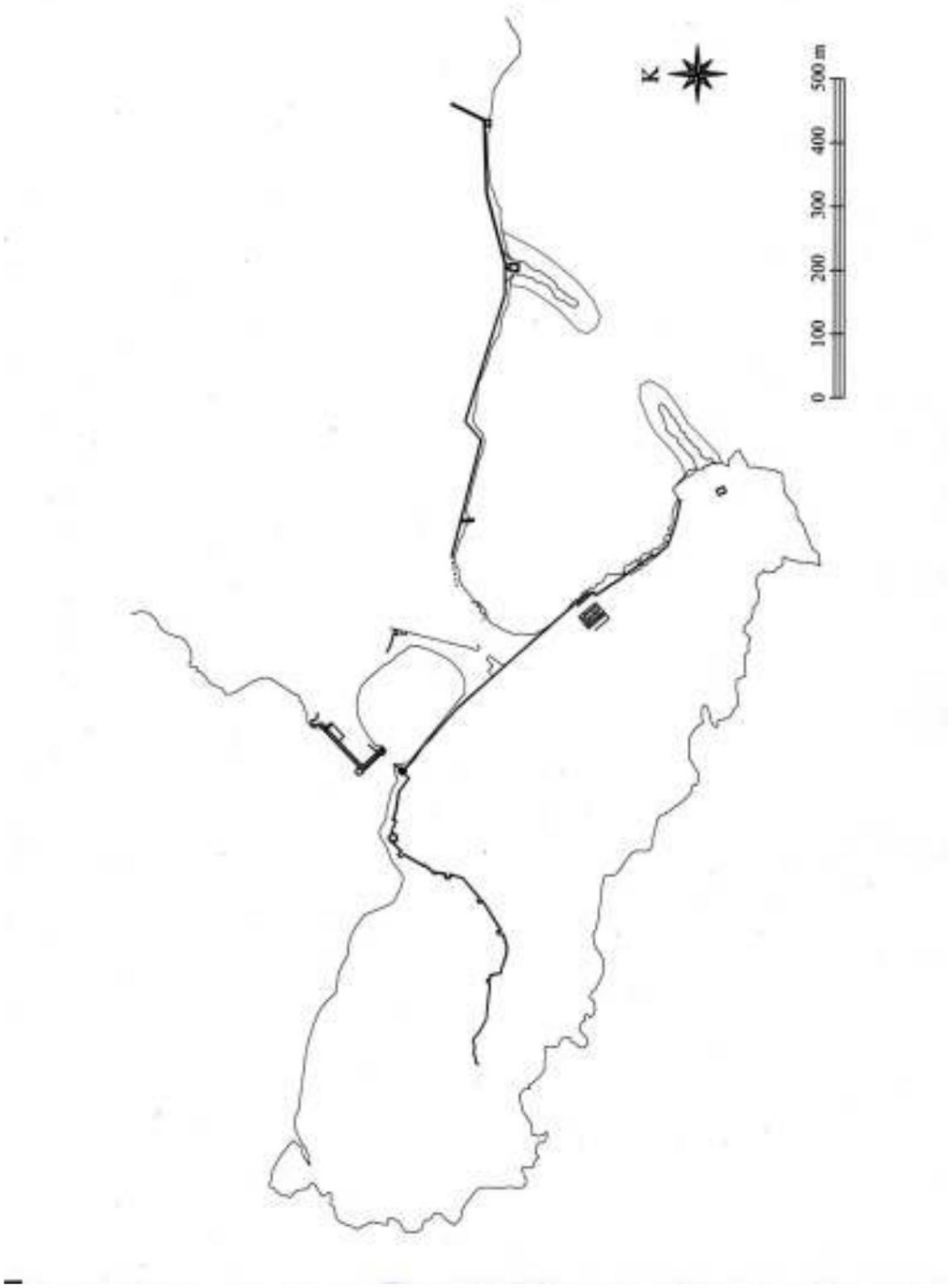

Figure 1: Commercial and Military Ports of Knidos

Plate 8

Figure 1: Knidos Trade Port

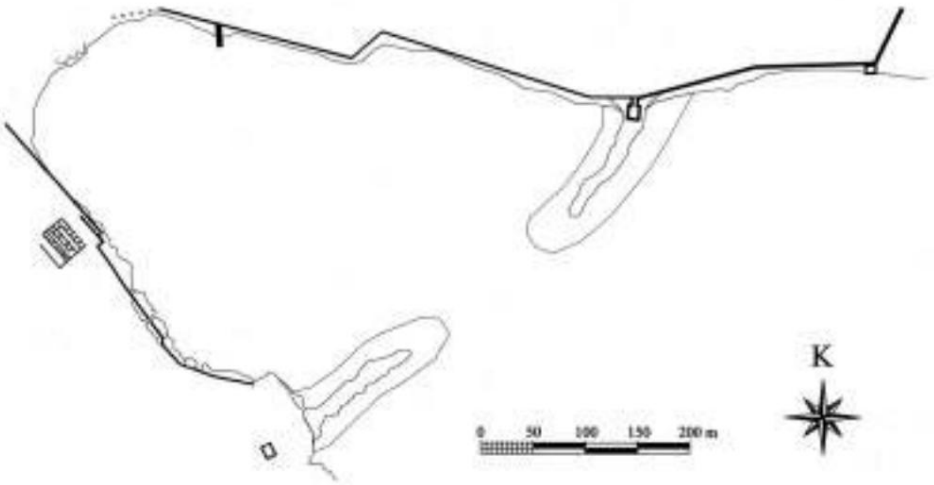

Figure 2: Trade Port and Port Structures

Plate 9

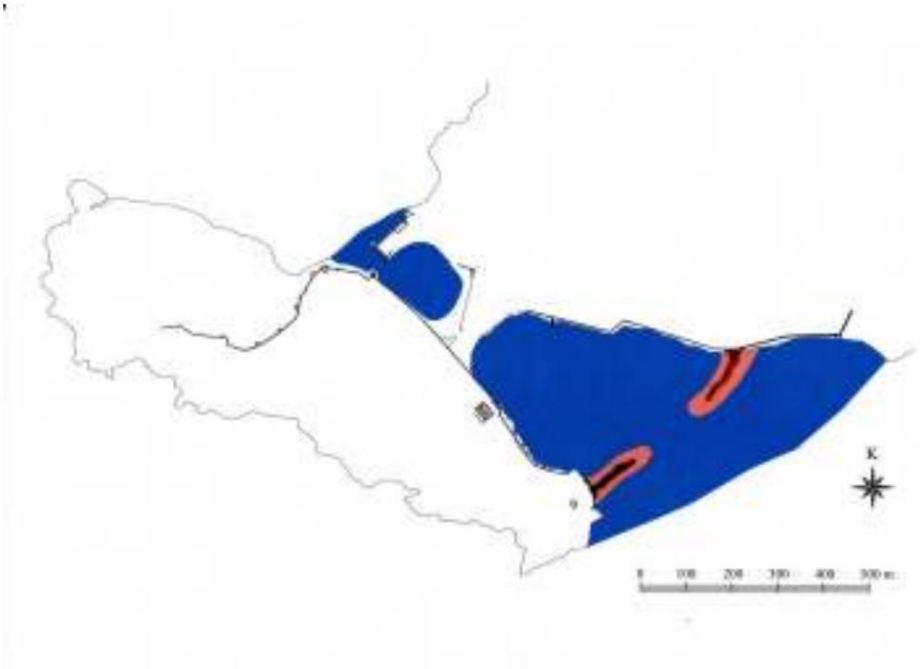

Figure. 1: Knidos Trade and Military Port

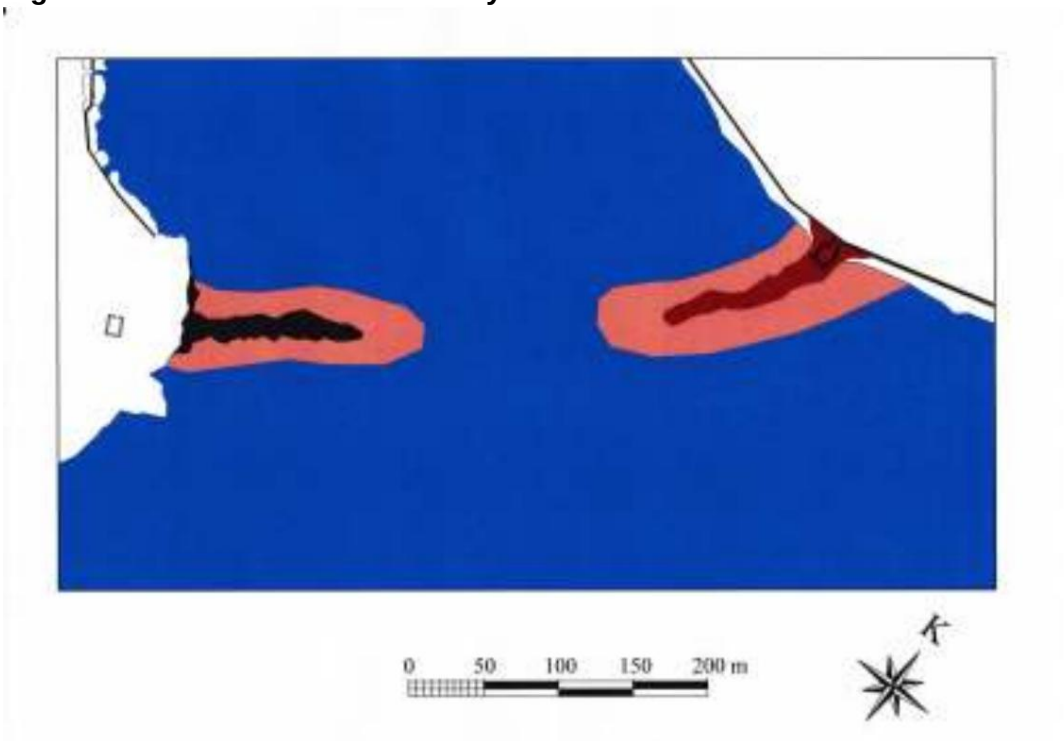

Figure 2: Breakwaters at the Trade Port Entrance

Plate 10

Figure 1: Southern Breakwater of the Trade Port

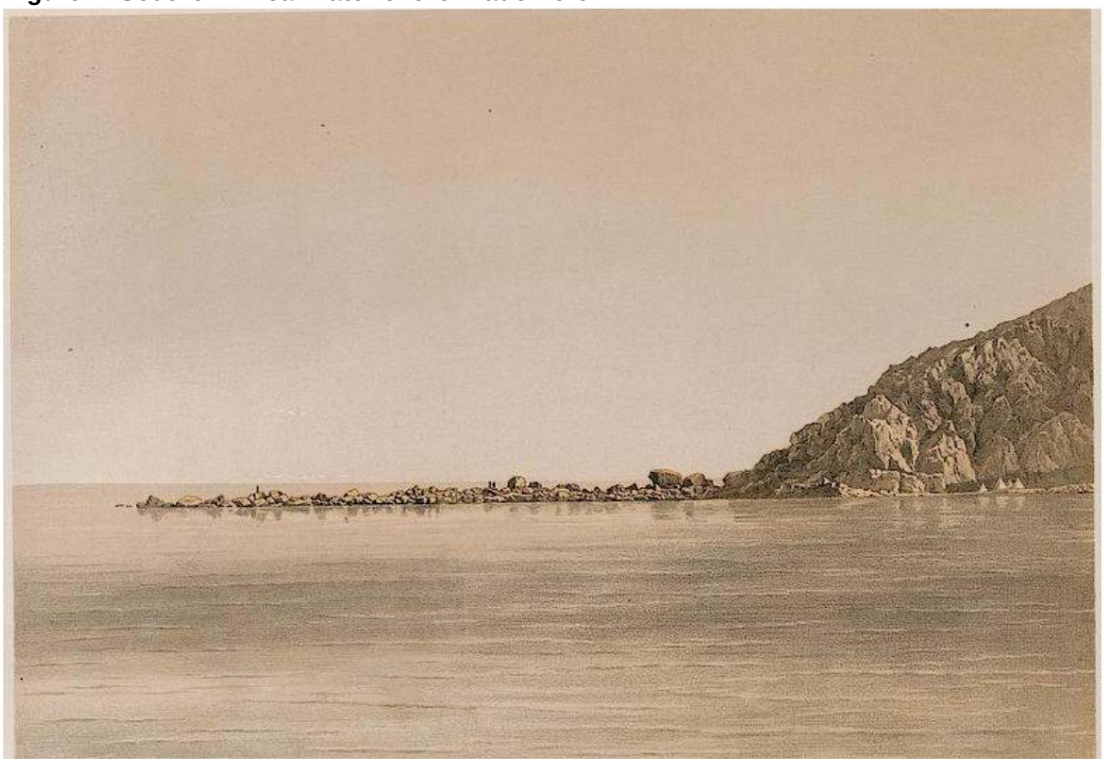

Figure 2: Newton's Engraving of the South Breakwater

Plate 11

Figure 1: South Breakwater as viewed from Kap Krio

Figure 2: Blocks Used in the Construction of the South Breakwater

Plate 12

Figure 1: Rocky Area Used as a Quarry in Breakwater Construction

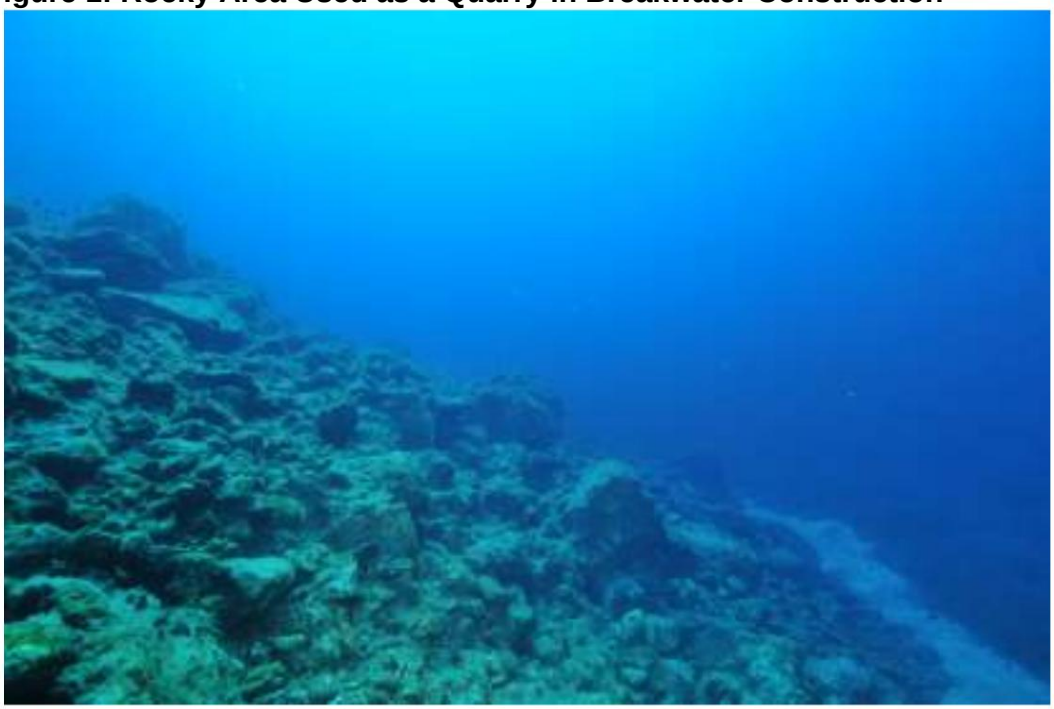

Figure 2: South Breakwater Inclined Exterior

Plate 13

Figure 1: Underwater Northern Breakwater of the Trade Port

Figure 2: Northern Breakwater Inclined Inner Surface

Plate 14

Figure 1: Northern Breakwater Inclined Exterior

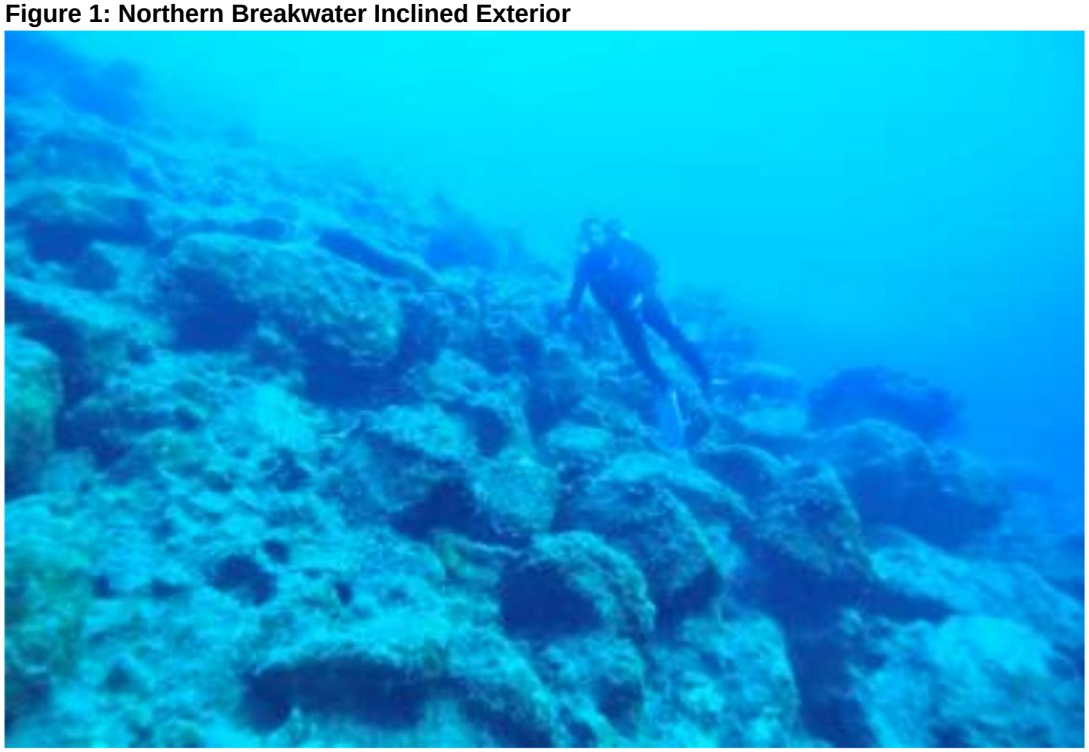

Figure 2: Northern Breakwater Inclined Inner Surface

Plate 15

Figure 1: Northern Breakwater Inclined Inner Surface

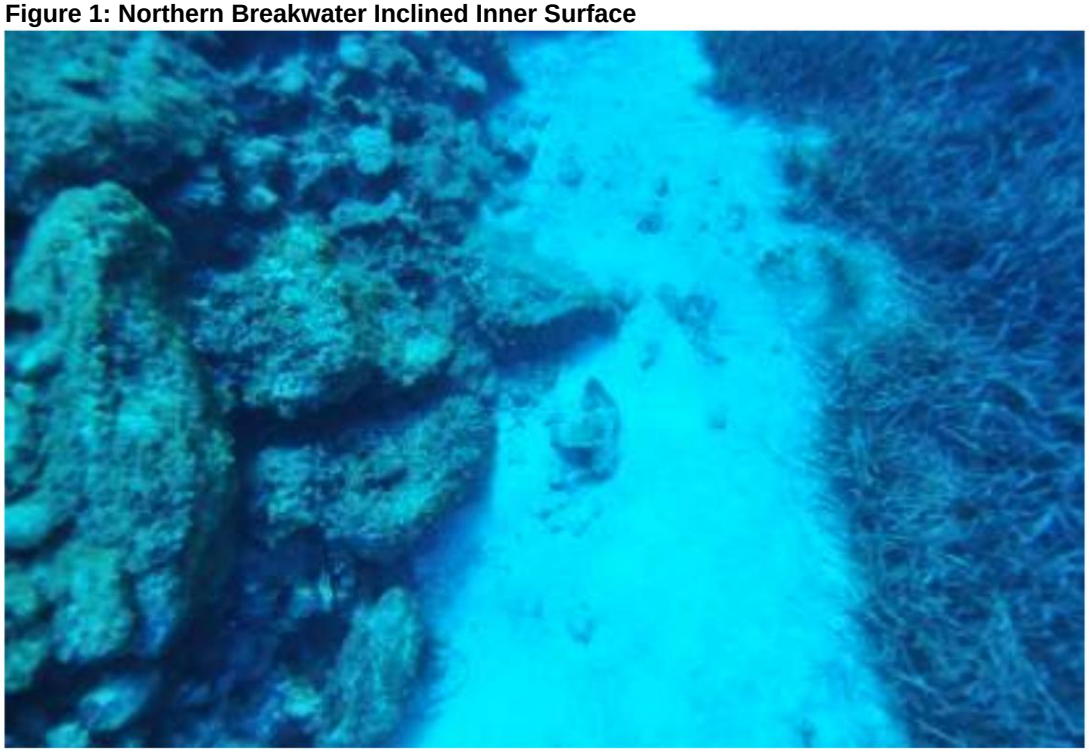

Figure 2: Sandy Seabed Where the Northern Breakwater Sits

Plate 16

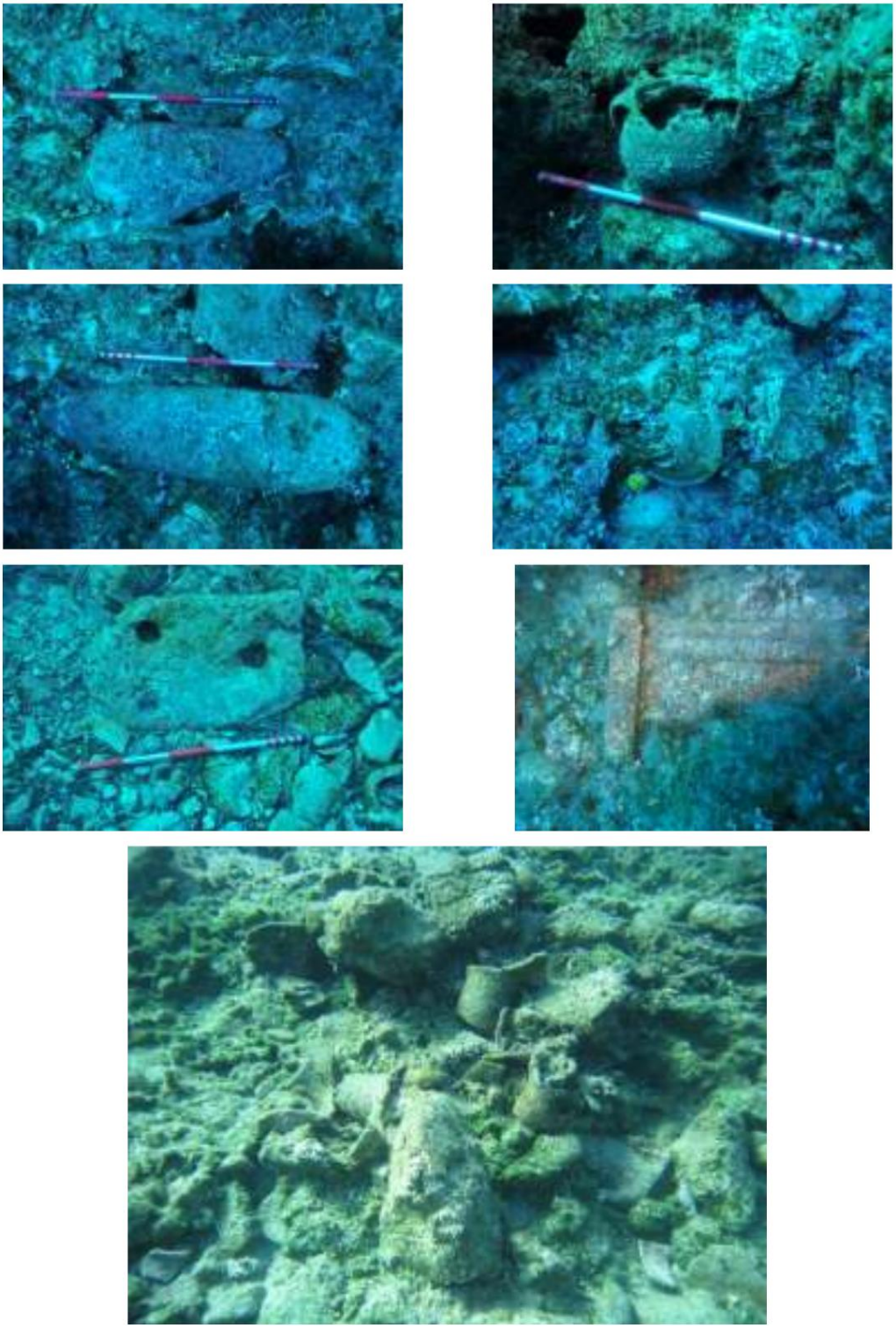

Figure 1: Archaeological Findings Found on the Northern Breakwater of the Trade Port

Plate 17

Figure 1: Eastern Walls Continuing from the Acropolis to the Coastline

Figure 2: Walls Between Tower 44 and the North Breakwater

Plate 18

Figure 1: Tower on the Northern Breakwater

Figure 2: Destroyed Harbor Walls on the Mainland Coast

Plate 19

Figure 1. Harbor Walls and Mooring Rings on the Coast of Kap Krio

Figure 2: Harbor Walls Passing the Upper Border of the Dock Area

Plate 20

Figure 1: Entrance on the Harbor Wall

Figure 2. Steps Created by Trimming the Natural Rock on the Dock

Plate 21

Figure 1: Wall Continuing from the Harbor Wall to the Coastline

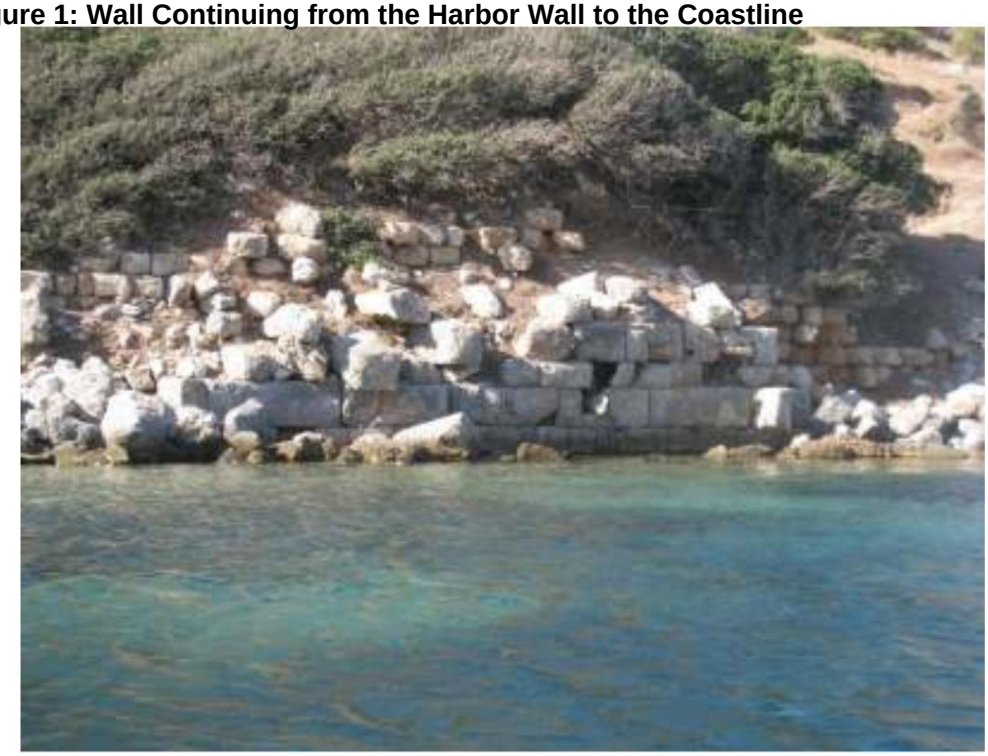

Figure 2: Harbor Walls and Mooring Rings in the Southwest of Kap Krio

Plate 22

Figure 1: Harbor Wall and Mooring Rings

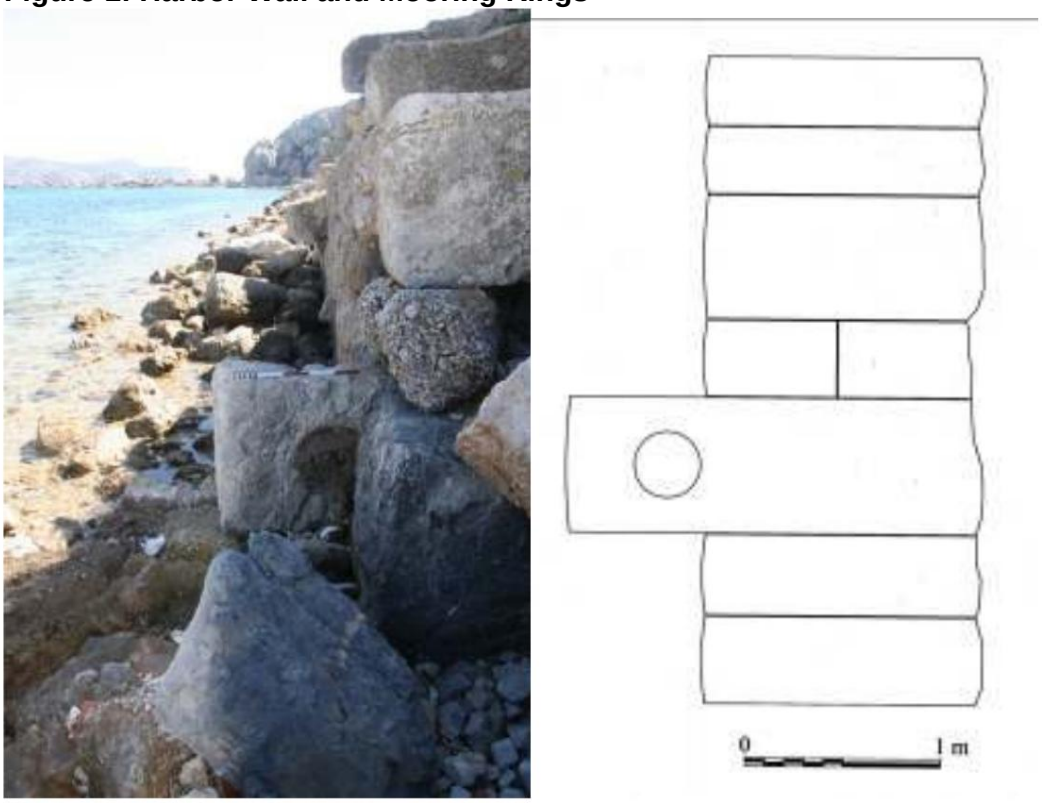

Figure 2: Mooring Eye No. 1

Plate 23

Figure 1: Number 1 Mooring Eye

Figure 2: Number 2 Mooring Ring

Plate 24

Figure 1: Dock Created by Shaving Natural Rock on the Coast of Kap Krio Fields

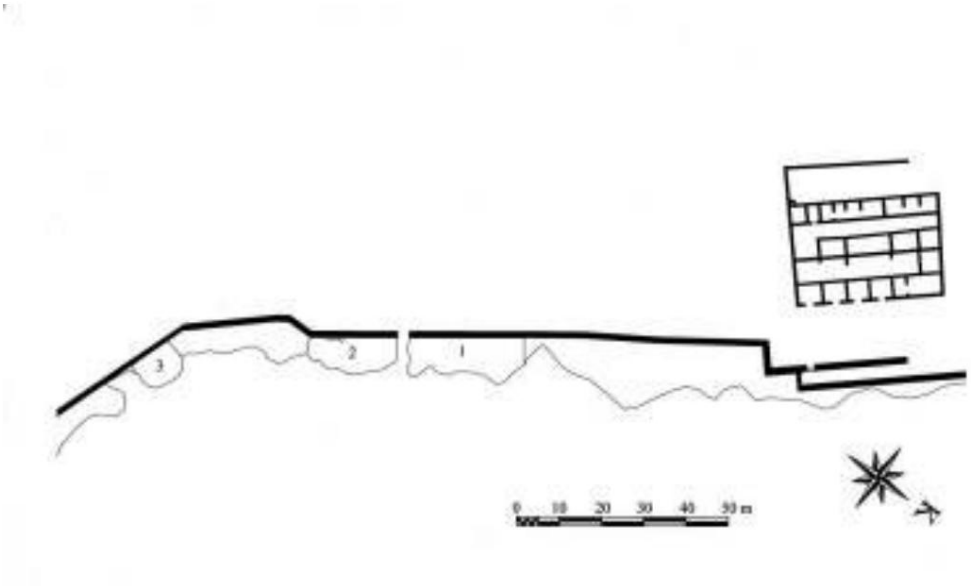

Figure 1: Dock Created by Shaving Natural Rock on the Coast of Kap Krio Plan of Areas

Plate 25

Figure 1: The First Formed by Shaving the Natural Rock on the Coast of Kap Krio Dock Area

Figure 2: The Second Formed by Shaving the Natural Rock on the Coast of Kap Krio Dock Area

Plate 26

Figure 1: Third Dock Area Created by Cutting the Natural Rock on the Coast of Kap Krio

Figure 2: Platform Created on the Dock

Plate 27

Figure 1: Cap Krio Port Structures Behind the Dock

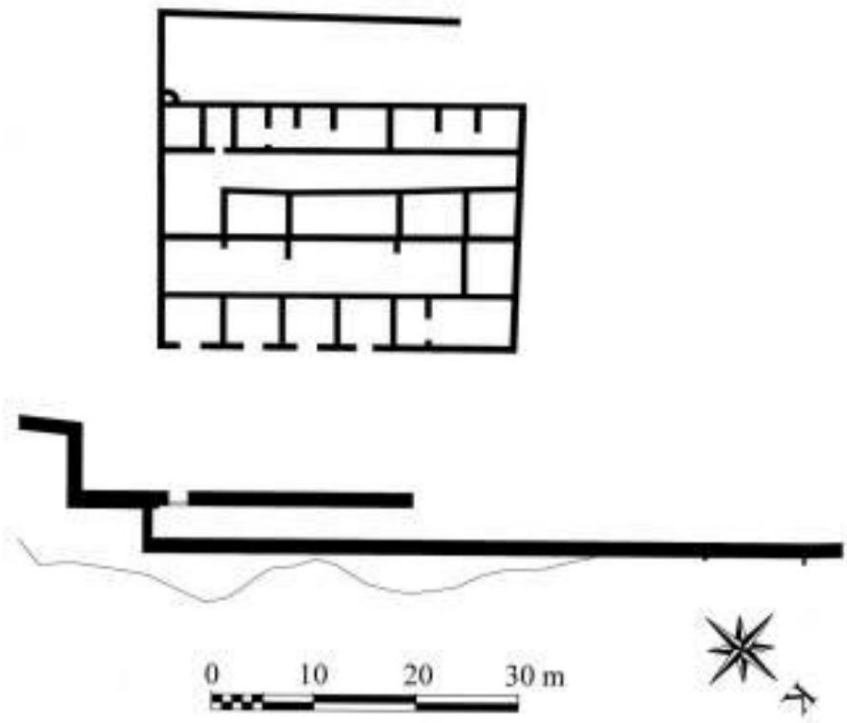

Figure 2: Kap Krio Port Structures and Coastline

Plate 28

Figure 1: East West Intermediate Street Extending in Front of the 2nd Terrace Shop Row 1

Figure 2: East West Intermediate Street 2, Extending in Front of the 4th Terrace Shop Row

Plate 29

Figure 1: 2nd Terrace Shop Row

Figure 2: 2nd Terrace Shop Row

Plate 30

Figure 1: 4th Terrace Shop Row

Figure 2: 4th Terrace Shop Row

Plate 31

Figure 1: Workshops on the 3rd Terrace

Figure 2: Workshops on the 3rd Terrace

Plate 32

Figure 1: Cistern 1

Figure 2: Cistern 2

Figure 3:Cistern 3

Figure 4: Cistern 3

Plate 33

Figure 1: Infrastructure of the Pier Consisting of Conglomerate and Limestone Blocks

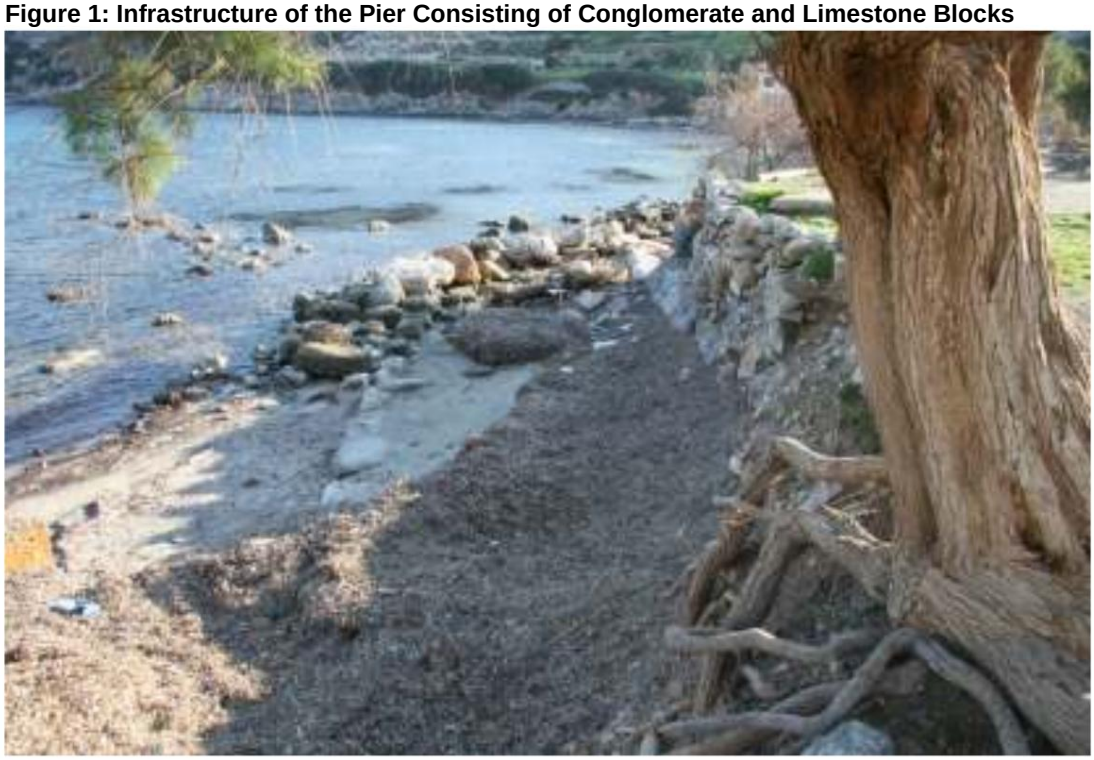

Figure 2: Current Situation of the Pier on the Isthmus

Plate 34

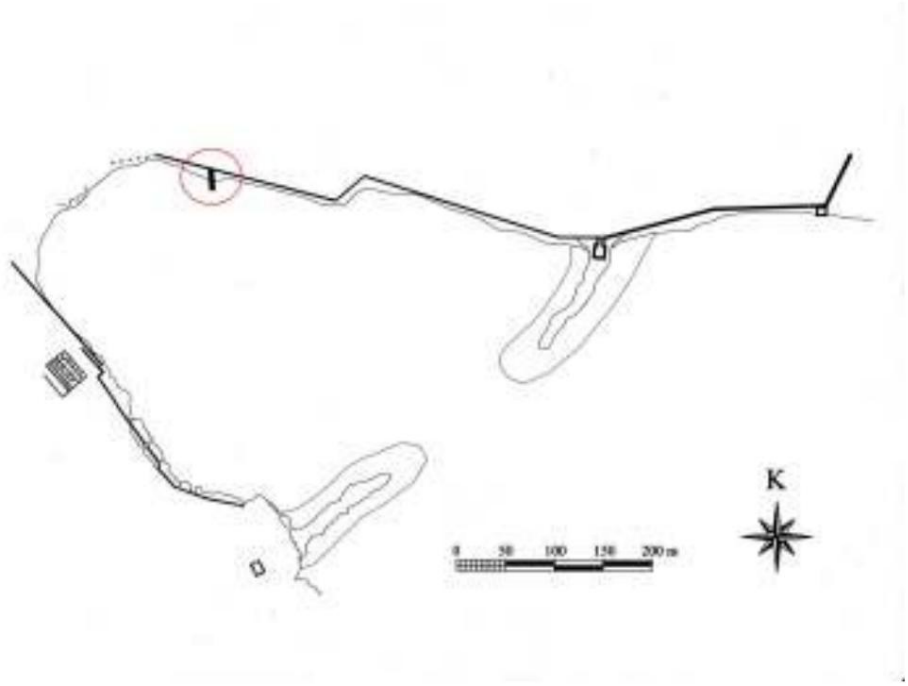

Figure 1: Location of the Pier in Front of the Harbor Theater within the Commercial Port

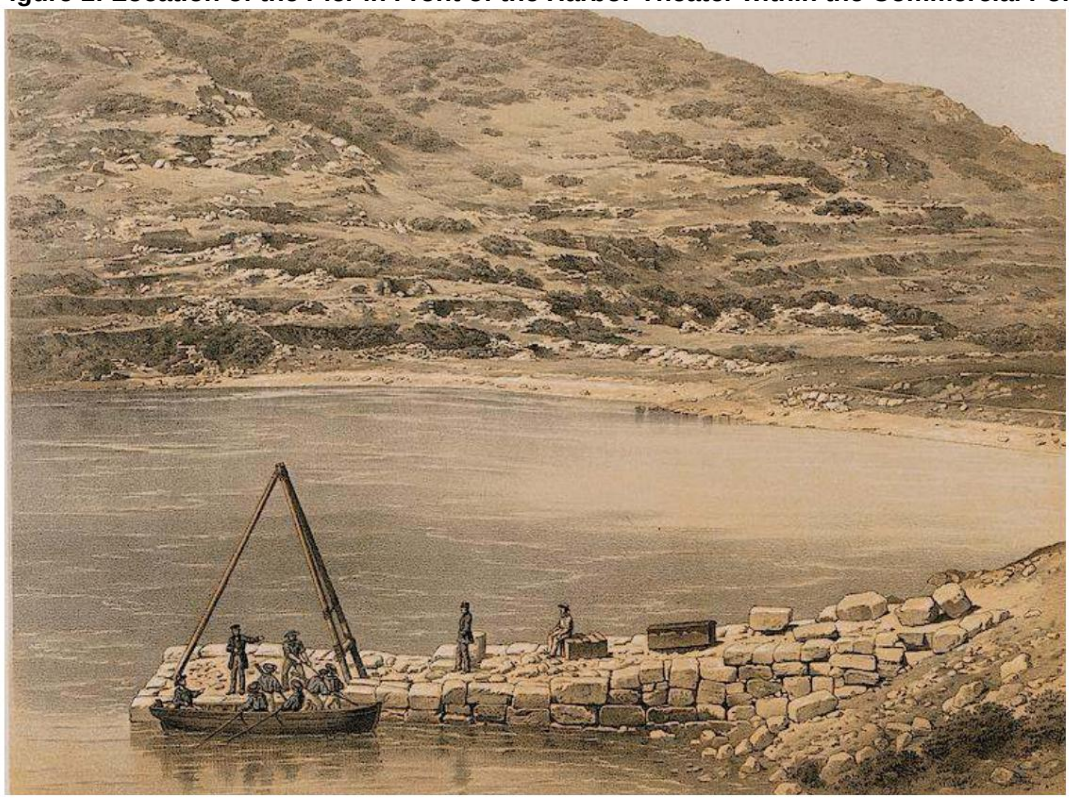

Figure 2: The Situation of the Pier in Front of the Harbor Theater in the Mid-19th Century

Plate 35

Figure 1: Rock Niche Facing the Open Sea

Figure 2: Rock Niche Facing the Open Sea

Plate 36

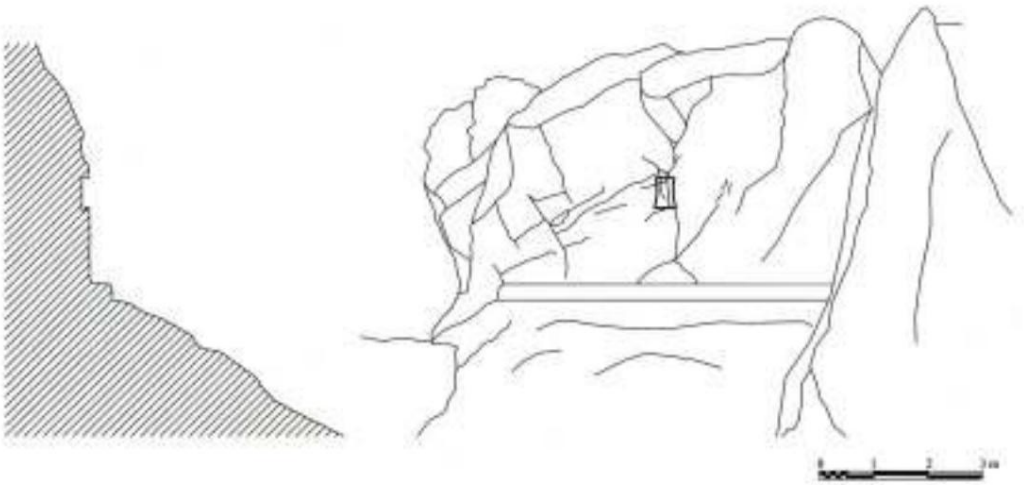

Figure 1: View and Section of the Rock Niche Facing the Open Sea

Figure 2: Detail of Rock Niche

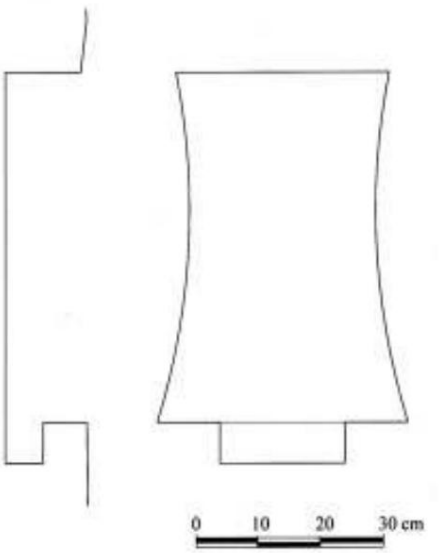

Figure 3: Section and View of the Rock Niche

Figure 4: Stele Nest in a Rock Niche

Plate 37

Figure 1: Rock Niche overlooking the Harbor Basin

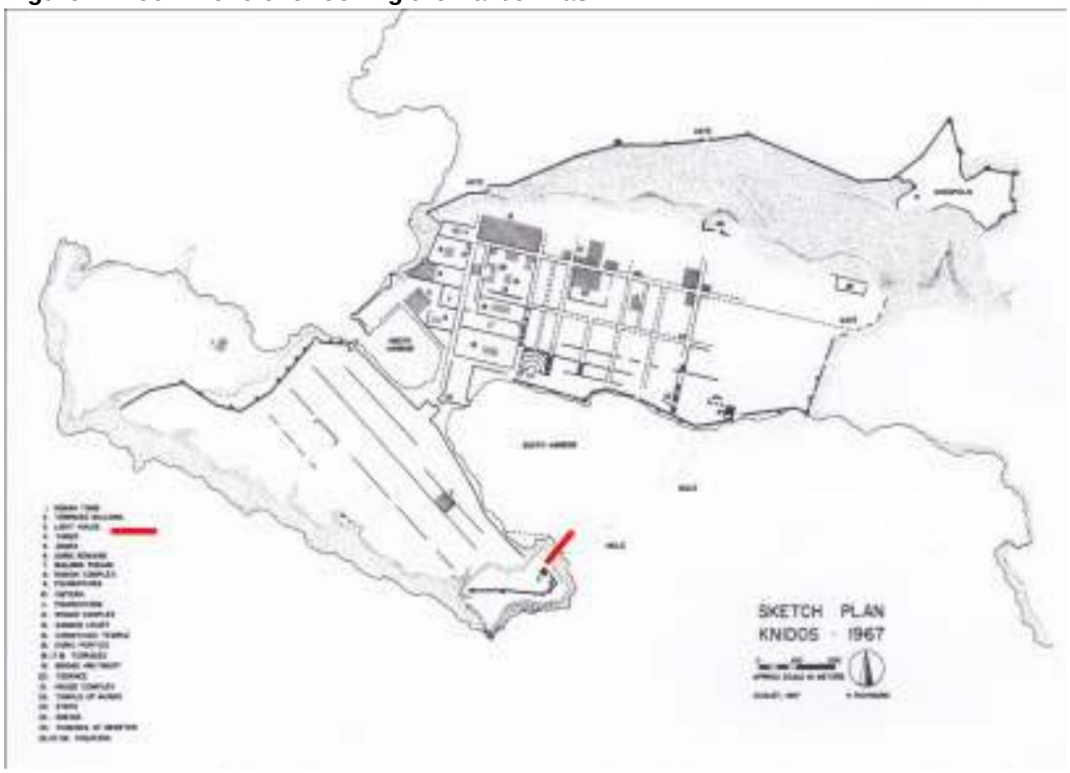

Figure 2: Love's Knidos City Plan and Building No. 3

Plate 38

Figure 1: Tower and Wall on the Eastern End of Kap Krio

Figure 1: Tower on the East End of Kap Krio

Plate 39

Figure 1: Knidos Military Port

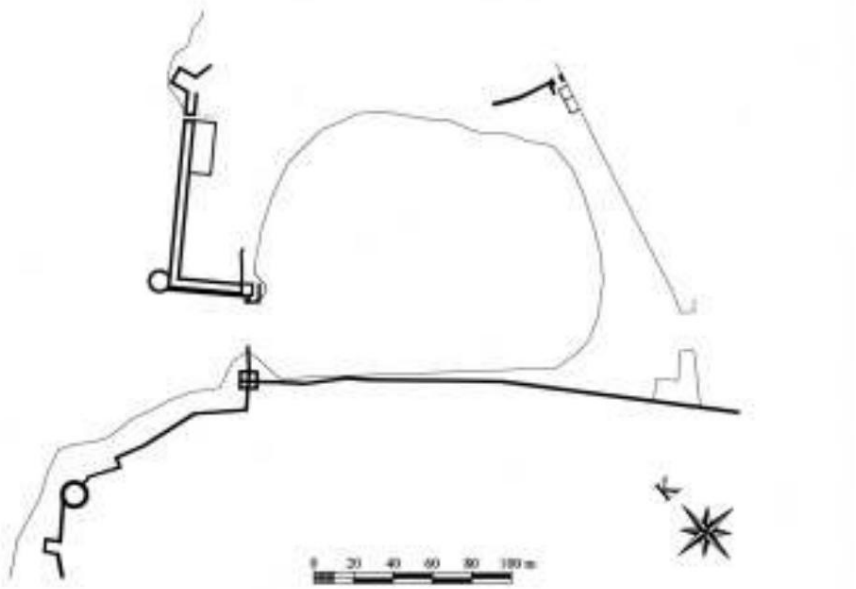

Figure 2: Plan of the Military Port

Plate 40

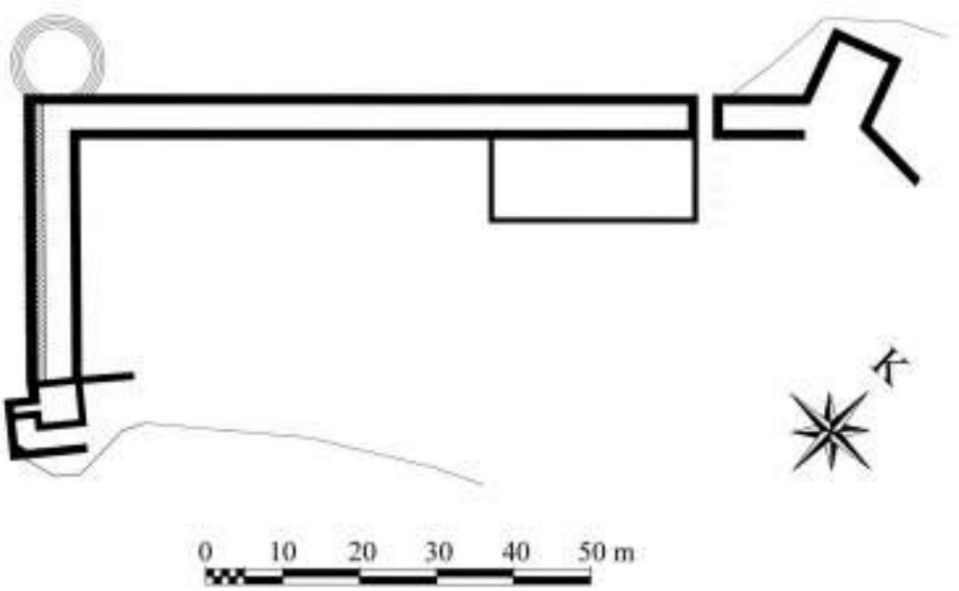

Figure 1: Breakwater of the Military Port

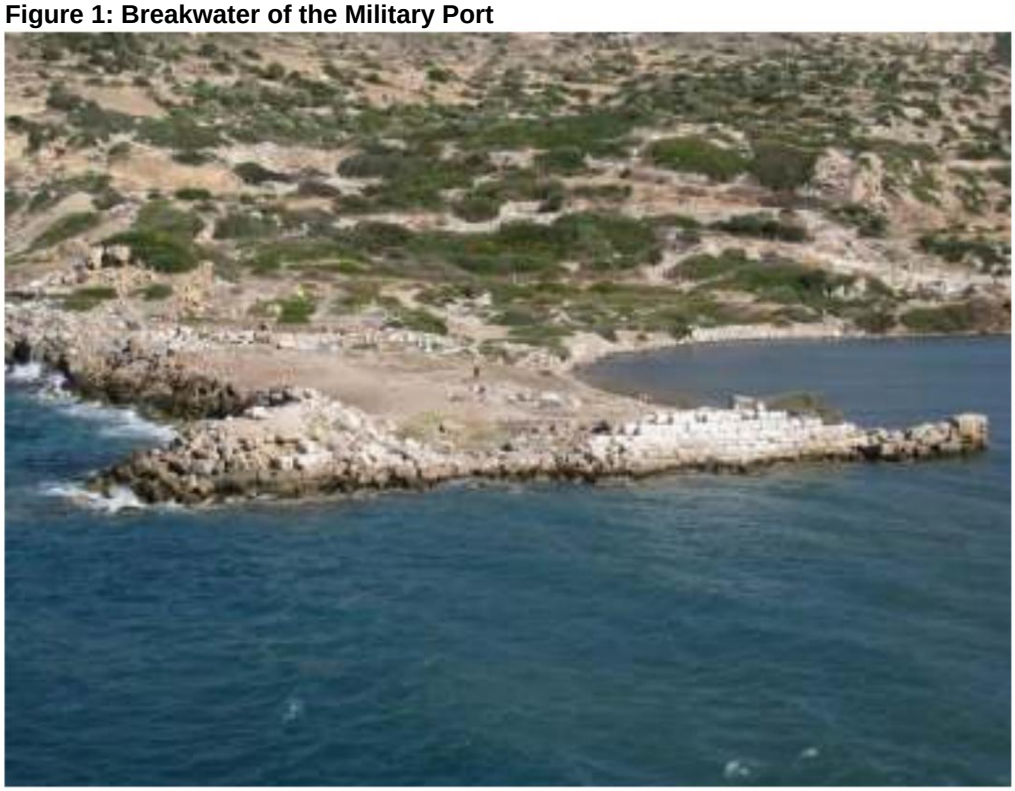

Figure 2: View of the breakwater from Kap Krio

Plate 41

Figure 1: Breakwater of the Military Port

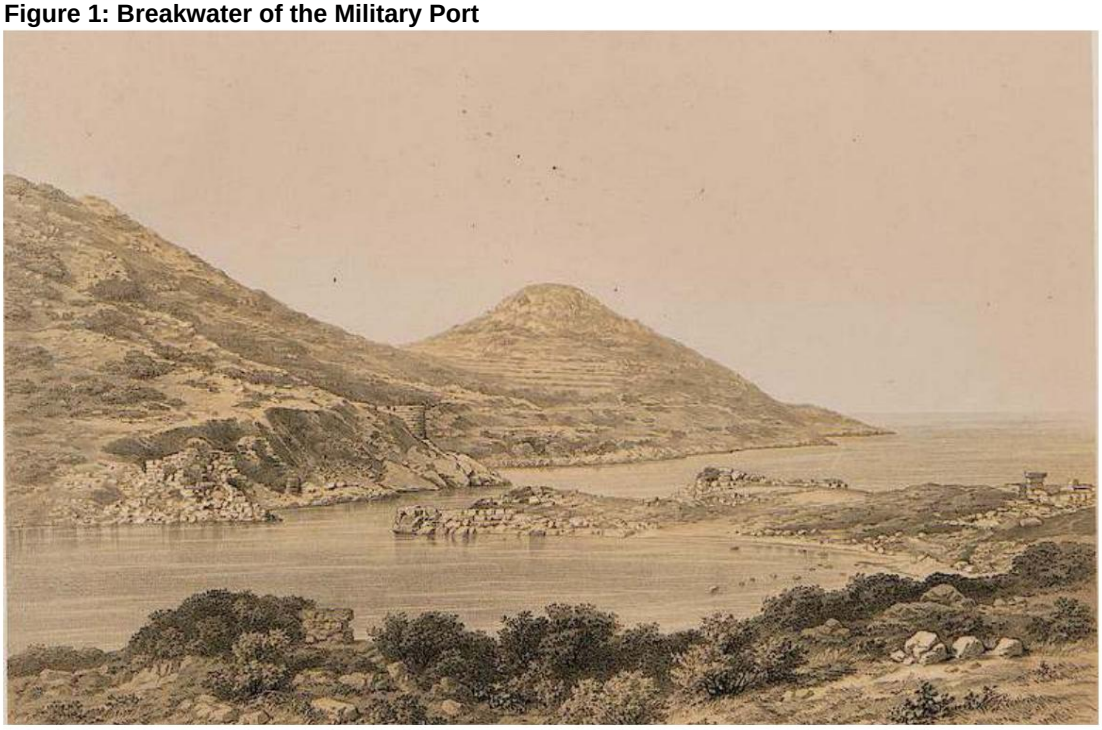

Figure 2: The Situation of the Military Port in the Mid-19th Century

Plate 42

Figure 1: Opening and Channel on the Western Wall

Figure 2: Western Wall of the Breakwater Built with Polygonal Blocks

Plate 43

Figure 1: South Wall of the Breakwater

Figure 2: Extant Lower Row of Harbor Walls on the Kap Krio Coastline

Plate 44

Figure 1: Coastline of the Military Port on the Mainland

Figure 2: Military Port Entrance and Round Tower 1

Plate 45

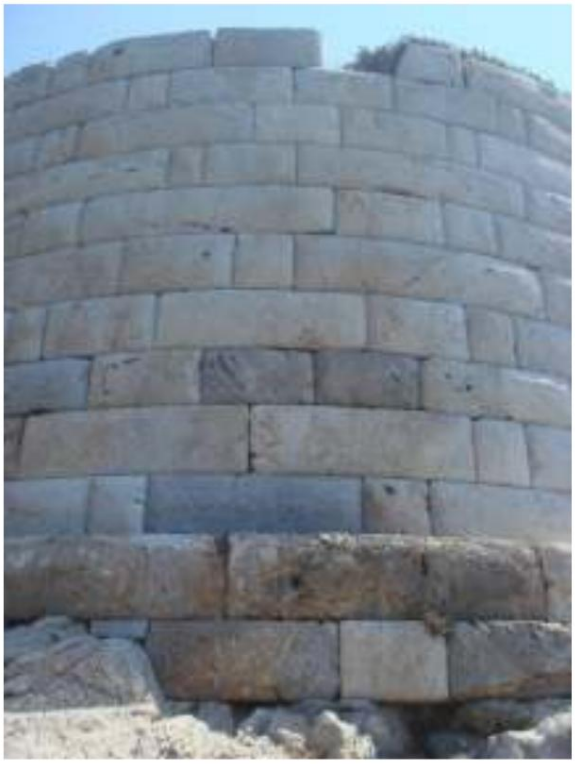

Figure 1: Substructure of Round Tower I

Figure 2: Round Tower 1

Plate 46

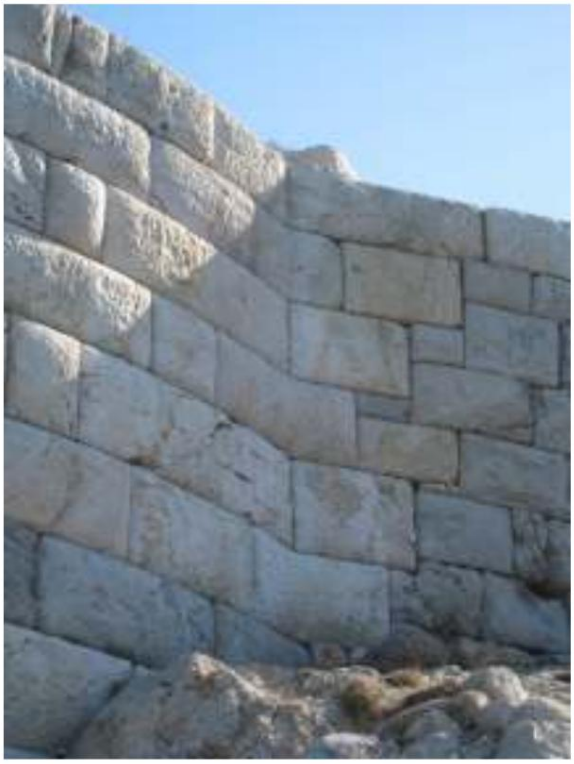

Figure 1: Connection of Round Tower 1 with the Wall

Figure 1: Military Harbor Breakwater and Round Tower 2

Plate 47

Figure 1: 2-Tier Substructure of Round Tower 2

Figure 2: Round Tower 2

Plate 48

Figure 1: Breakwater Western Wall and Round Tower 2

Figure 2: Connection of Round Tower 2 with the West Wall of the Breakwater

Plate 49

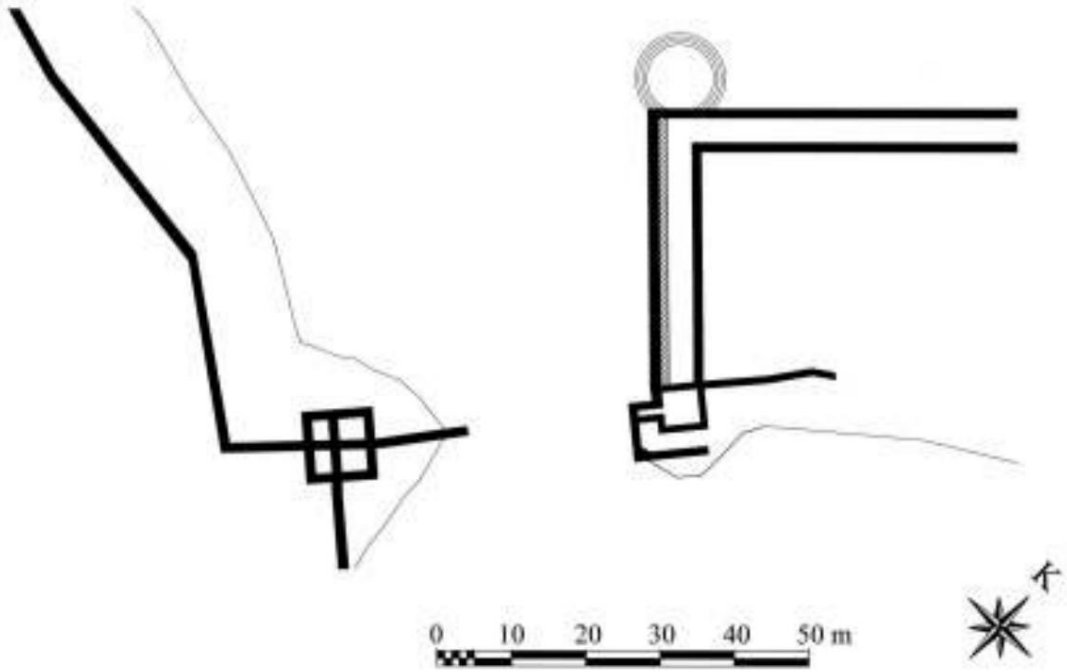

Figure 1: Wall Restricting Tower 1 and Military Port Entrance

Figure 2: Wall Restricting the Military Port Entrance

Plate 50

Figure 1: Wall Restricting the Military Port Entrance

Figure 2: Wall Restricting the Military Port Entrance

Plate 51

Figure 1: In situ of the Wall Restricting the Military Port Entrance Seated on the Seabed blocks

Figure 2: Dowel Holes and Drain Channels on Wall Blocks

Plate 52

Figure 1: Tower 2 at the Southeast Corner of the Breakwater

Figure 2: Tower 2 at the Southeast Corner of the Breakwater

Plate 53

Figure 1: Located on the axis of the wall narrowing the harbor entrance within Tower 2

Openness

Figure 2: The Opening on the Axis of the Wall Narrowing the Port Entrance

Plate 54

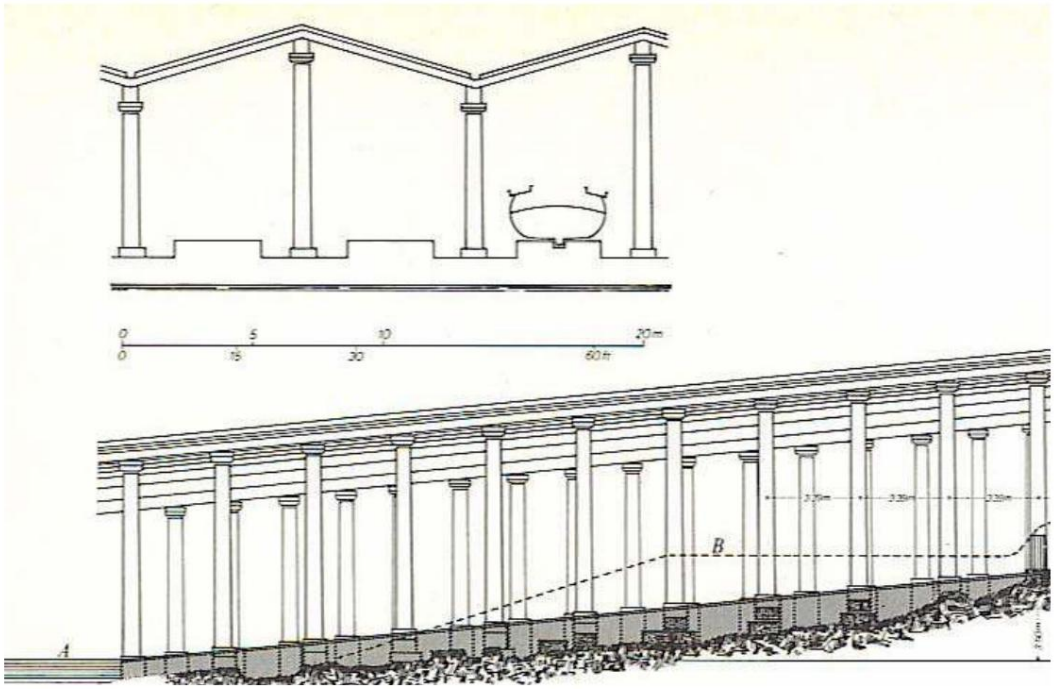

Figure 1: Reconstruction of Ship Shelters in Piraeus

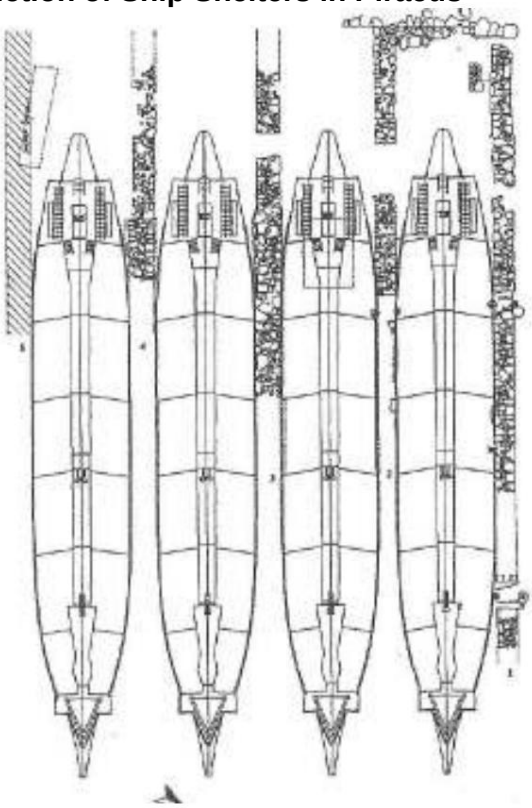

Figure 2: Naxos (Sicily) Ship Shelters

Plate 55

Figure 1: East Side of the Military Harbor Breakwater Facing the Harbor Basin

Figure 2: East Side of the Breakwater Facing the Harbor Basin

Plate 56

Figure 1: Opening and Channel on the Western Wall of the Military Port

Figure 2: Opening on the Western Wall of the Military Port

Plate 57

Figure 1: Current Situation of the Canal Connecting the Ports

Figure 2: Bridge Pillar on the Kap Krio Side of the Channel

Plate 58

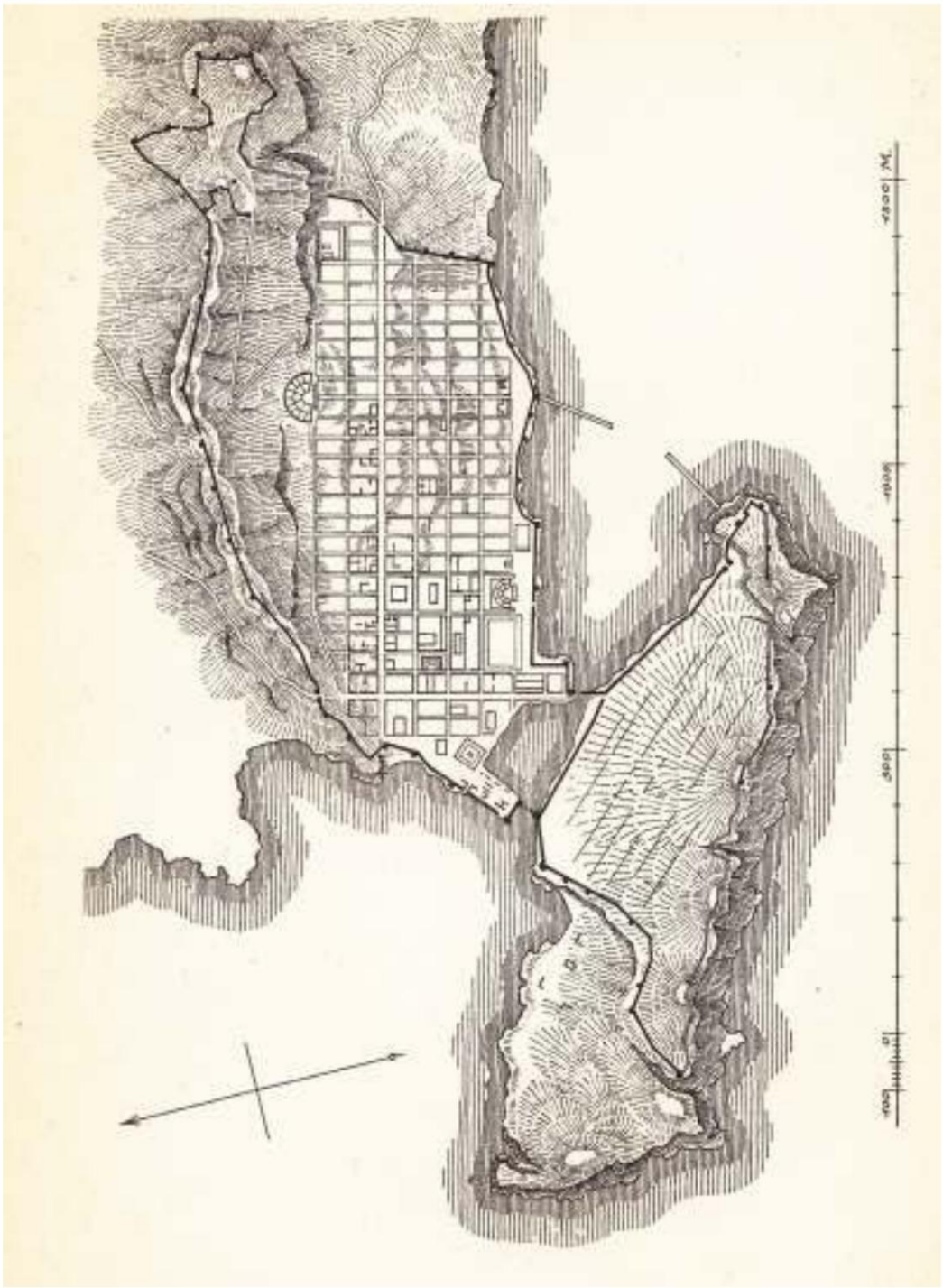

Figure 1: Grid Plan System at Knidos

Plate 59

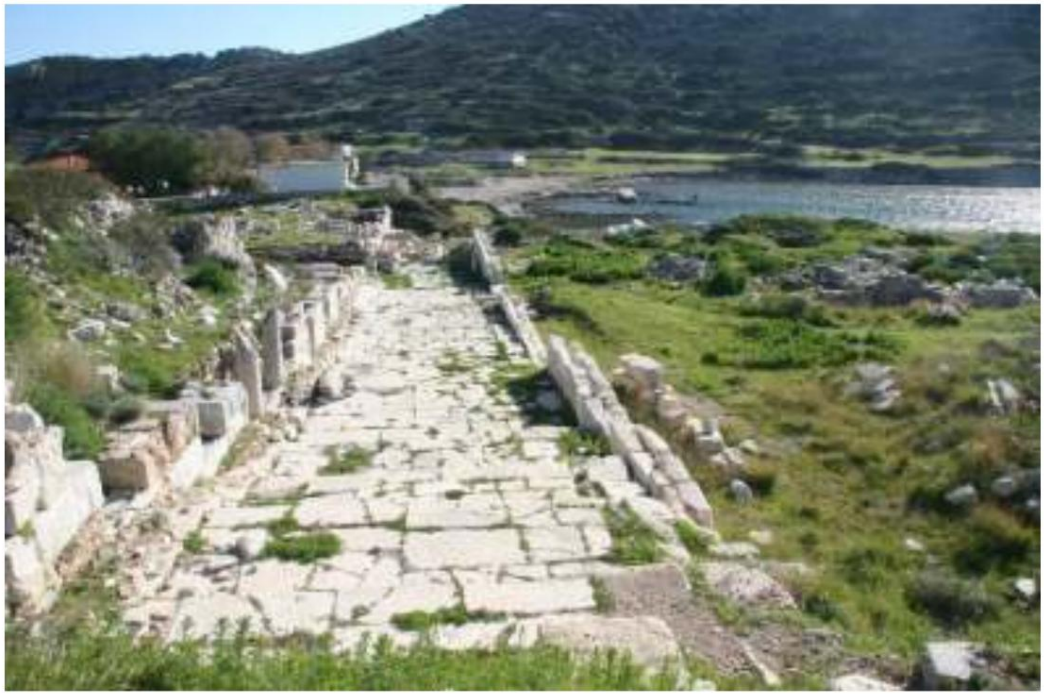

Figure 1: Liman Street Connecting the Port Area with Public Areas

Figure 2: Theater Street, which connects the Port Area to the Upper Terraces

Plate 60

Figure 1: Terrace and Stoa of Dionysus

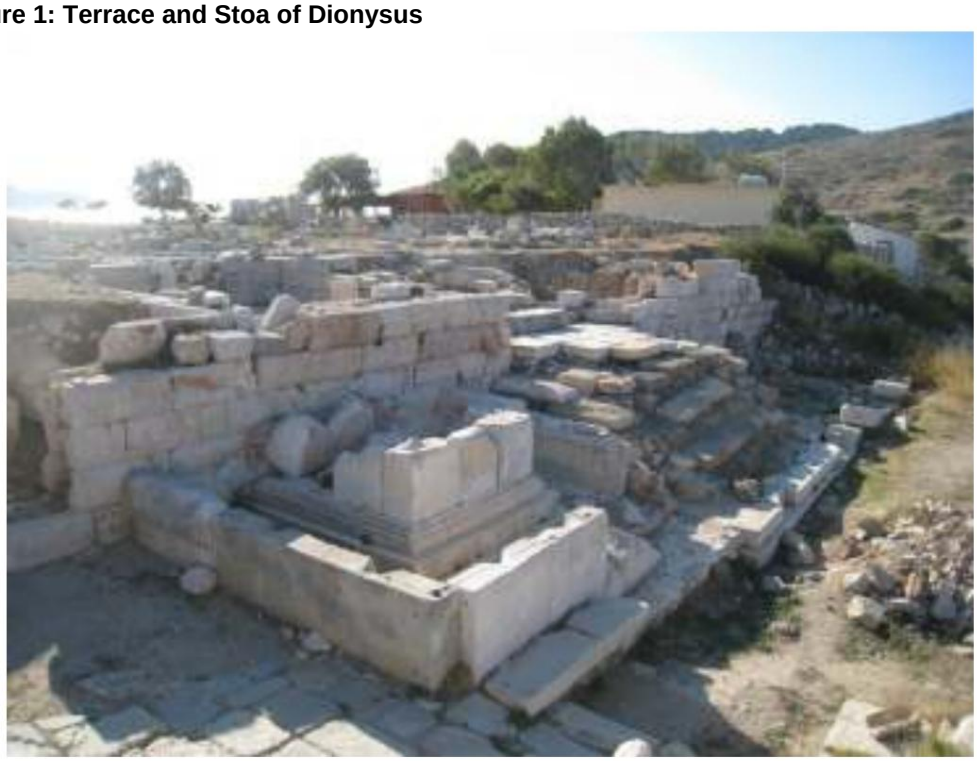

Figure 2: Entrance of Dionysus Terrace on the Military Port Side