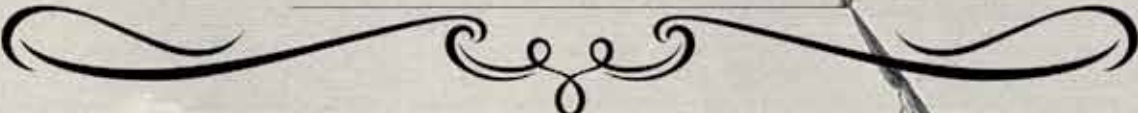




# BETWEEN CONTINENTS

PROCEEDINGS OF THE TWELFTH SYMPOSIUM  
ON BOAT AND SHIP ARCHAEOLOGY

ISTANBUL 2009



EDITED BY  
NERGİS GÜNSENİN



*ege*

YAYINLARI



# BETWEEN CONTINENTS

*Proceedings of the Twelfth Symposium on Boat and Ship Archaeology  
Istanbul 2009*

Edited by  
Nergis Günsenin

## ISBSA 12

Sponsored and Hosted by the  
Istanbul Research Institute of the Suna and İnan Kiraç Foundation

Under the auspices of the Underwater Technology Program at Istanbul University's  
Vocational School of Technical Sciences in partnership with  
the Faculty of Letters, Department of Restoration and Conservation of Artefacts

## OFFPRINT

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Nergis Günsenin

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*To the memory of*

Ole Crumlin-Pedersen (1935-2011)  
and  
Claude Duthuit (1931-2011)

Crumlin-Pedersen founder of the Viking Ship Museum at Roskilde heralded a whole new area of archaeological fieldwork and remained a seminal and inspirational figure in nautical archaeology. Duthuit not only acted as director of the Institute of Nautical Archaeology (INA), but made lifelong contributions to the field. It is thanks to his dedication and his passion that several excavation efforts, including those at Cape Gelidonya, have come to life.



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## Preface

---

The island of Tatihou in France was the site of the first ISBSA meeting I attended in 1994. Encircled by seminal figures in our field, it was the most inspiring event of my academic career. At the time, it became clear that the attendees were eager to hold one of their future meetings in Turkey. Their wish was the driving force that finally led me to this special day.

Positioned between two continents, Istanbul was the perfect place to hold the Symposium. Throughout history, the exchange of goods and cultures between east and west, as well as north and south, was realized in the waters off the Anatolian coast, with the Black Sea to the north, the Sea of Marmara to the north-west, the Aegean Sea to the west, and the Mediterranean Sea to the south. Given the vast area of interest, we invited participants to focus on the four seas and address their pivotal role not only for Turkey but also for the rest of the world.

The Turkish coastline had already been the site of pioneering underwater excavations since the 1960s. Indeed, nautical archaeology was initiated

in Turkey under G. F. Bass and further developed under the auspices of the Institute of Nautical Archaeology (INA). Today, the development of nautical archaeology and boat and ship archaeology on an international level far surpasses the initially limited field of underwater archaeology. Moreover, the discovery of the harbour of Theodosius, one of the most outstanding archaeological events of our era, has further enriched our field and added yet another dimension to our symposium.

The excavations in the harbour are still ongoing. Thirty-six shipwrecks dating from the 5<sup>th</sup> to the 11<sup>th</sup> centuries have been excavated. Their study will make an enormous contribution to our understanding of ship construction and the transition from shell-first to skeleton-first techniques. It will also allow us to re-examine Byzantine trade and the economy of the period. Furthermore, the remains revealing settlements dating back to 6500 BC, will shed new light on our understanding of the history of the ancient peninsula.



*Fig. 1. Group photograph of the participants of ISBSA 12 (Photo: Engin Şengenç).*



Fig. 2. Group photograph of the participants of the Amasra excursion.

The ISBSA 12 was held under the auspices of the Underwater Technology Program at Istanbul University's Vocational School of Technical Sciences in partnership with the Faculty of Letters, Department of Restoration and Conservation of Artefacts. It was sponsored and hosted by the Istanbul Research Institute of the Suna and İnan Kırac Foundation and was held at the Foundation's Pera Museum on 12-16 October, 2009.

More than 200 participants from 24 countries attended the Symposium where 50 papers, 25 posters, and various films were presented (Fig. 1). This also allowed numerous young scholars to present their work and contribute to ongoing debates in our field and even launch new areas of research based on recent discoveries. The papers for the symposium were selected by the ISBSA committee from among a multitude of excellent proposals. The mission of the ISBSA is focused on ship construction. While related subjects are welcome, the main thrust has traditionally been a discussion of the ship itself.

It is our hope that the conference theme which has helped bring together numerous scholars from around the world, will also bring together the two sub-fields of archaeology which have until recently

remained separate. It is believed that a genuine thematic and methodological dialogue between land and underwater archaeology can only enrich the field and uncover the mysteries of past civilizations. "Between Continents" will thus re-map our field and reset its intellectual boundaries.

Following the Symposium, an excursion to Amasra on 16-18 October offered the opportunity to visit workshops that still continue the traditional art of shipbuilding in *Tekkeönü* and *Kurucaşile* in the Black Sea Region. Participants learned methods of ship construction directly from the local shipbuilders. The Shipbuilding Program at the *Kurucaşile* Technical High School, the Amasra Castle, and the Amasra Archaeological Museum were among the local sites included in the itinerary (Fig. 2). Hüseyin Çoban was pivotal to the success of this excursion; his hospitality and his immense knowledge of traditional shipbuilding enriched our trip.

Like many other scholars in our field, I owe my presence here today to George Bass who not only accepted our invitation to attend the symposium but also graciously delivered the keynote address. Frederick van Doorninck, Jr., the late Claude Duthuit, Don Frey and Robin Piercy from the Institute of Nautical Archaeology further enriched

this symposium with their presence. It was a genuine honour to have them in our midst. As in all scholarly disciplines the master - apprentice relationship is central to our field. This was made amply clear during the course of this symposium.

However, our field is based not only on scholarly research. The constant interaction between nature and humans is an inextricable part of it: sailing on a fickle sea, working in the hostile underwater environment, and living in often difficult conditions are among the challenges that make our field so special.

May God save sailors and nautical archaeologists for future research and many more symposia!

### **Acknowledgments**

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# 14. 'City' Harbours from Antiquity through Medieval Times

*Nergis Günsenin*

The topography of Istanbul as well as the city plan has always been a compelling subject for scholars since a plan is essential in order to fully understand a city. Starting with the 16<sup>th</sup> century, in an attempt to impose a more scientific framework on research, most experts based their studies on basically the same documents where they changed and modified the location of monuments, as well as the names of streets or districts. This very fact is also quite visible in the study of city topography and especially in the naming and topography of the harbours. This is further highlighted by C. Mango, who draws attention to the fact that a greater number of harbours have been found in Byzantine texts as compared to those that have been identified on the ground (Mango

1985: 38). Given the interminable construction projects of Istanbul, I am afraid a decisive plan will never be finalized.

This paper will focus on the works of three major scholars, R. Janin, (Janin 1964), W. Müller-Wiener, (Müller-Wiener 1994; 2001) and C. Mango, (Mango 1985)<sup>1</sup>. New findings will also be considered.

In order to fully understand how the harbours developed, one would have to focus on the development of the city and the city walls. Janin, sketches the walls 'of Byzas' and Septimius Severus while Müller-Wiener ignores the walls of Septimius Severus yet keeps the walls 'of Byzas' and Mango draws the walls 'of Byzas' and names them the ancient walls (Mango 1985: 14) (Figs 14.1-2).

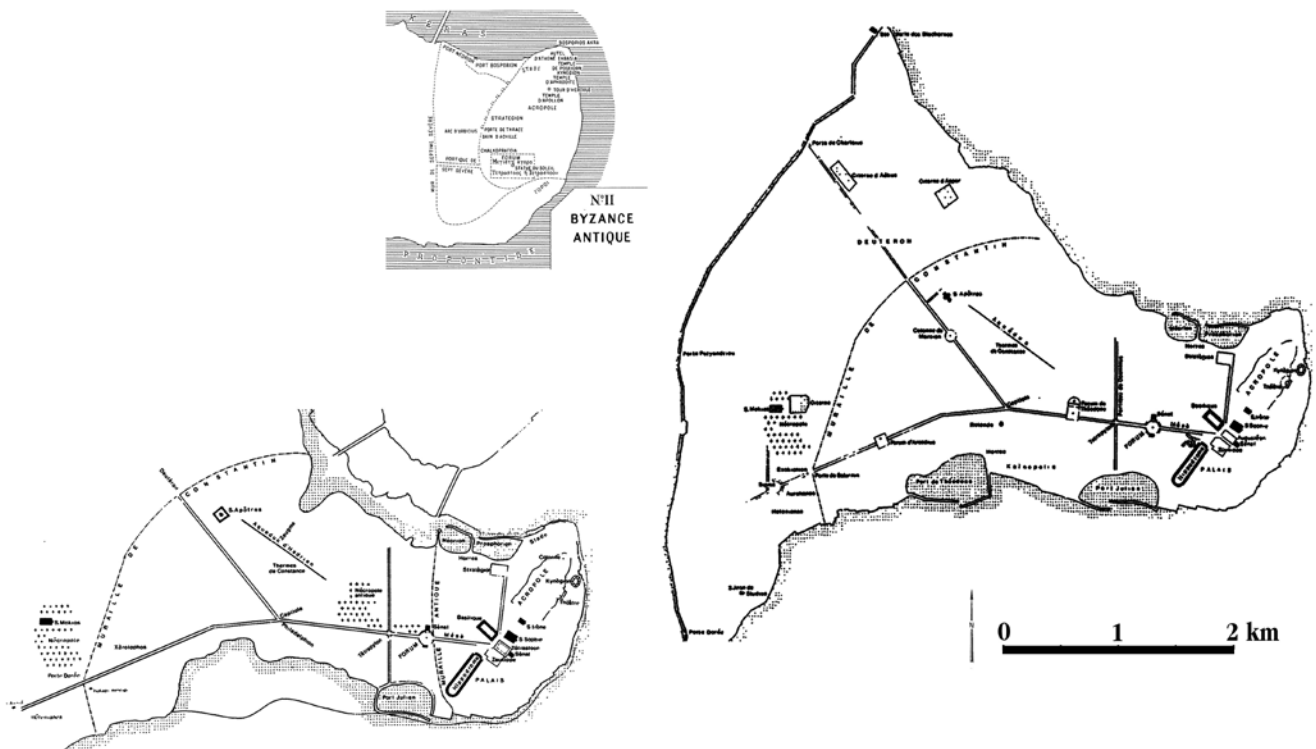


Fig. 14.1. Left to right: Ancient Byzantium, Janin (1964, map no. II); Ancient Byzantium and the city of Constantine, The city of Theodosius, Mango (1985, Plan I, Plan II).

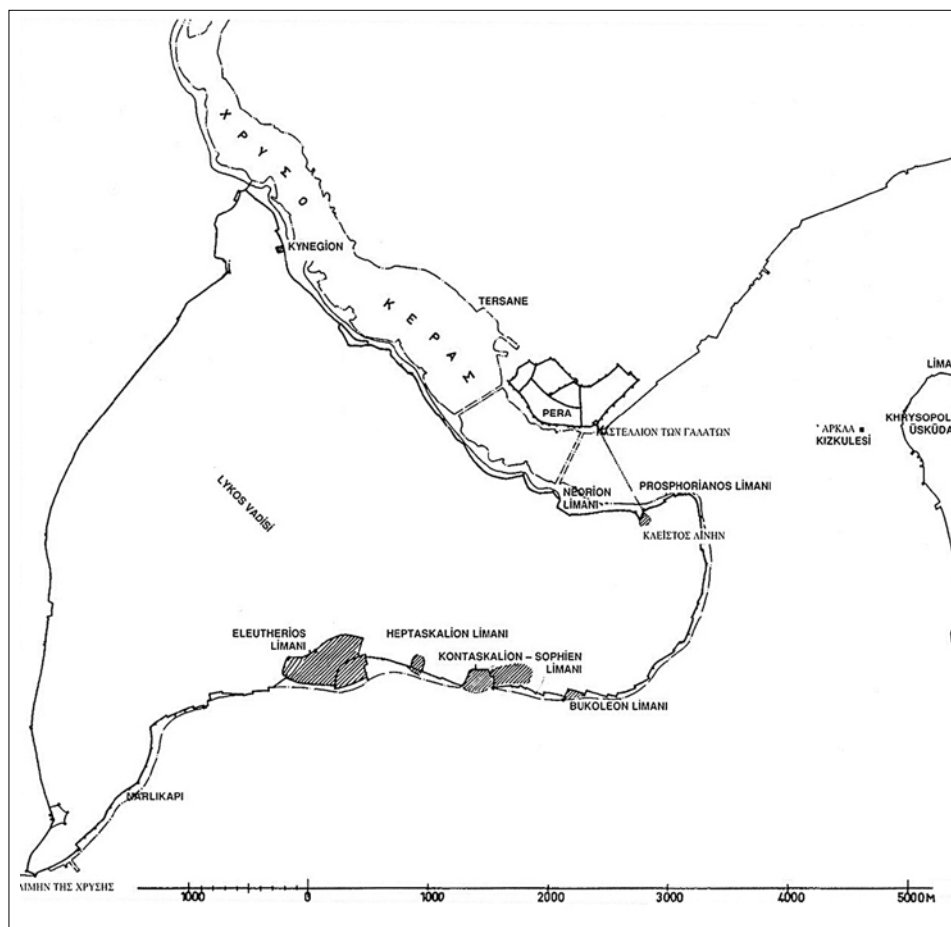


Fig. 14.2.  
The distribution of the  
harbours in the city,  
Müller-Wiener  
(2001 58: fig. 38).

I would like to present, the works of these scholars as they gave 'different names' to these harbours according to the written documents<sup>2</sup>. I shall also try to review the history of these harbours in light of recent archaeological findings. It is noteworthy that these very harbours that had fallen victim to urban development are rediscovered today as a result of new urban projects.

Despite the fact that these harbours have been named differently and situated in different locations, the maps of both scholars identify the harbours of Neorion and Prosporion as the only two ancient entry points for receiving the city supplies.

Mango (1985: 14-15) refers to the fact that, Dio Cassius (218-219), mentions that these two harbours were protected by fortified moles and closed off by chains during wars to avoid access. On the other hand, Dionysius of Byzantium mentions three harbours instead of two. We should not be thrown off by this discrepancy since the harbours could have been divided into two basins. What is important is that, these two harbours were inside the city limits before the time of Septimius Severus. In fact, their history can be traced back to at least

400 BC through the writings of Xenophon who in *Anabasis* asks permission to enter the harbour with his army.

### ***The Harbours of the Golden Horn***

#### ***Portus Prosporianus, Prosporianus, Prosporion/Bosporion***

The harbour known in antiquity as *Kleistos limen* was protected at its entrance by breakwaters and walls as well as the Eugenios Tower. Over time, this harbour which had served as a storehouse since the 5<sup>th</sup> century turned into a swampland and ceased to be used by the end of the first millennium.

The harbour was used to disembark the commodities coming from the Bosphorus, the Black Sea and the Asian coast. According to some historians, there was a market which took its name from the harbour.

Recent discoveries about this harbour which spreads all the way to the district of *Sirkeci* reveal the economic and social life of the city in ancient times (Fig. 14.3).

Due to the actual topography of the city and particularly of the historical peninsula that housed



Fig. 14.3.  
Map showing the sites mentioned in the text.

shops, restaurants, hotels, living areas and the railway station connecting Istanbul to its suburbs to Anatolia and to Europe, a systematic archaeological excavation was impossible to realize. Recently thanks to the Marmaray Rail Tube Tunnel and Commuter Rail Mass Transit System, one of the most challenging infrastructure projects in Istanbul, Archaeological Museums have had the opportunity to lead some salvage excavations. One of the major salvage excavations has been that of *Sirkeci*. This site has four main areas:

- The North entrance (inside the *Sirkeci* railway station).
- The South entrance, *Cağaloğlu*.
- The East shaft (south of the *Sirkeci* railway station).
- The West shaft (*Hocapaşa*) (Girgin 2007).

At the present time, the excavations still continue inside the *Sirkeci* railway station and in the West shaft. Even though the archaeologists can only work in limited areas, their discoveries remain very important. Not only small objects but also architectural remnants of the harbour area have been recovered.

While on a land excavation, levels of the remnants can be differentiated by the edges of the trenches and individual trenches can be correlated level by level within the system, a regular stratigraphy is hard to identify here. In the case of what has been identified as the harbour area, archaeologists continue the salvage excavations with unavoidable interruptions. A common stratigraphical level cannot be localised at this point in time.

The remnants we have are deemed to be representative of the entire *Sirkeci* area and therefore connections between the areas could be based on those. The area was settled in the 6<sup>th</sup> century BC. Ceramics of different periods like Thasian and Rhodian amphora handles or late Byzantine-Ottoman kilns (Waksman, Erhan & Eskalen 2009: 457-467; 2010: 329-337), medical instruments like catheters and a Roman sculpture head are among the findings and point to an uninterrupted settlement<sup>3</sup>.

The archaeologists can only meticulously document each finding. These archives will be reviewed properly only after the area is handed over to developers.

The photographs shown here were taken in 2009. One of them depicts the interior of the *Sirkeci* railway station (Fig. 14.4)<sup>4</sup>. The architectural remnants, remind us of a storehouse. Indeed, some 30-35 channels were found inside the rooms as well as by the sides with some 40-45 wells. Each time the water level rose, the ground level was also raised. With some prudence, these remnants we can be interpreted as the *Horrea olearia*, a storehouse for oil, or the *Horrea Troadensia*, *Horrea Valentiaca* and *Horrea Constantiaca*, three storehouses for grain (Mango 1985: 40). These could also be a series of granaries that were later converted to shops.

The second photograph was also taken in the West shaft in 2009 (Fig. 14.5)<sup>5</sup>. It represents a prominent street with a median gutter and a small perpendicular alley. Two houses are identifiable. On the left, there is a very meticulously built façade with a colonnade (four columns, the fourth one is on the ground)



Fig. 14.4.  
The North entrance of  
Marmaray project, 2009  
(Istanbul Archaeological  
Museums archive).

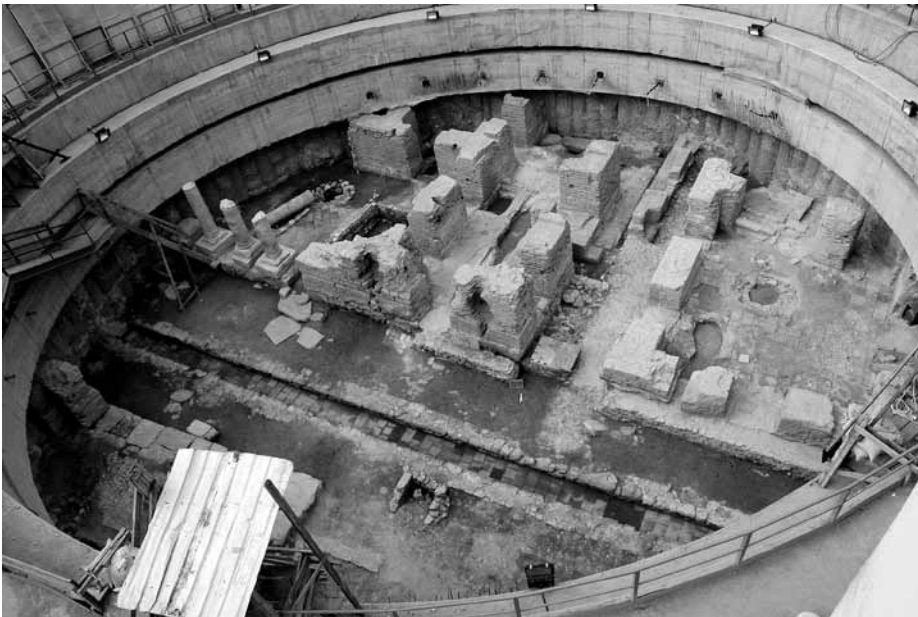


Fig. 14.5.  
The West shaft of  
Marmaray project, 2009  
(Istanbul Archaeological  
Museums archive).

which opens to an interior courtyard with a central basin. On the right, there is a kind of corridor that was most probably vaulted, supporting a higher floor. This corridor turned towards the left and even perhaps towards the street thus, encircling the courtyard on three sides. This could be a two or three storey small building. The other building shows similar features, at least on the façade. The one on the principal street had a door or a colonnade on the street. The two small massifs on the left of the photograph could be plinths built as bases, the plinths of the other building seem to be in marble<sup>6</sup>.

According to documents, by 1169 the Genoese were given rights to an area called *Orkus* that comprised its own church and dock. As a result of new negotiations in 1170, an area within the city walls near *Porta Veteris Rectoris* was once again ceded to the Genoese. This area is described as comprising one or two storey buildings. It had narrow streets with sharp turns and corresponded to the area now housing the *Sirkeci* train Station ( Müller-Wiener 1998: 23-24).

However, it would be premature to make such precise conclusions. The excavations are still ongoing and just as in Yenikapı ships could be found below this level.

*Neorion (Portus Neorii)*

The area to the west of the Prosporion has been in use since antiquity and corresponds to the district of *Bahçekapı*. It owes its economic importance to the store houses in the 5<sup>th</sup> district that have repeatedly fallen victim to fires (453, 465, 559). The harbour was also used as an arsenal and a basin for shipbuilding. An oar factory was also identified in the area.

Coastal pollution affected the harbour over time and the Emperor Leontius (695-698) undertook substantive drainage works. The importance of this harbour in urban life is further demonstrated by the fact that Latin and Jewish merchants were granted the right to settle in neighbouring districts.

***The Harbours of the Sea of Marmara****Kontaskalion/portus novus/megistos limên/  
Harbour of Julianus/Sophia*

In various topographical sources Kontaskalion has been referred to by different names and its placement and history have been a subject of much debate. Consequently, it is quite difficult to present decisive information on this harbour. Based on various sources and historical plans as well as research, the development of the harbour has unfolded as follows.

The bay to the west of the hippodrome was included within the city limits by Constantine who used it as a harbour in his effort to widen the city limits. The harbour was completed in 362 by the emperor Julianus who also built a big, sigma-shaped portico leading down to the sea. The *Notitia* refers to this harbour as the *portus novus*, the new port of the third district. This area was partially damaged during a fire in 465.

The harbour was drained by Anastasios I (491-518) who also built a breakwater. According to some sources, the harbour which was damaged by fire in 561 was rebuilt, cleaned and widened by 575. Henceforth, the harbour came to be known as Sophia's, the name of the emperor's wife. It featured the sculptures of, Julianus, Sophia, their daughter Arabia and Narses.

Towards the end of the 6<sup>th</sup> century, the harbour was primarily used as an arsenal. It carried different names through the ages and came to be known as Kontaskalion from the 11<sup>th</sup> century onwards.

While, there is great controversy concerning Kontaskalion most scholars agree that it was the only

harbour used in the 15<sup>th</sup> century. It was used both as a harbour and a dockyard.

*Bukoleon (portus olim palatii Imperatoris, ancient harbour of the Imperial palace)*

The smallest harbour on the Sea of Marmara was Bukoleon, situated at the foot of the palace bearing the same name. While the actual name Bukoleon was only used in the 10<sup>th</sup> and 11<sup>th</sup> centuries, the use of the harbour itself goes back to the 5<sup>th</sup> and 6<sup>th</sup> centuries as the landing that the emperors used. The name refers to the sculpture of a lion attacking a bull, a sculpture that graced the harbour until the 6<sup>th</sup> century. The development of this harbour which played an important part in the daily life of the Palace reflected a parallel development to the Palace architecture and maintained its importance until the mid 14<sup>th</sup> century.

*Heptaskalon*

Heptaskalon was not an artificial harbour. It used to be placed on the Marmara but it has since been shown that it was on the Golden Horn, roughly at Unkapanı<sup>7</sup>.

*Harbour of Theodosius (Portus Theodasiacus/  
Eleutherios, Kaisarios (?))*

*Portus Theodasiacus*, situated at the edge of the 12<sup>th</sup> district, was built during the 4<sup>th</sup> century, filled in thereafter and later named *Langa Bostani* (vegetable garden). The written documents do not clearly state whether the harbour was built by Theodosius I or II. Some historians believe that the harbour was called Eleutherios after an adjacent district owned by a noble person who was represented by a statute holding a basket and a spade.

As Janin (1964: 226) observes, the harbour represents two distinct parts; one towards the north and northwest, the other to the southeast. These two parts were separated by a rampart and the first part probably called Eleutherios was filled in first as it was situated at the end of the Lykos stream which crossed the city. Protected by a rampart against the alluvial deposits of Lykos, the second part must have survived longer. It is believed that this part was named the harbour of Theodosius. It was believed to be constructed by paving stones and was very deep. The city's wheat supply coming from the provinces and primarily from Egypt, arrived at this harbour.

By the end of the 12<sup>th</sup> century, the harbour also came to be known as *ta blagga* after a palace built by Andronikos Komnenos I.

In 1203, the region around the harbour became deserted in the wake of a fire caused by the Latin invasion.

It is believed that, Kontaskalion harbour built by Michael Palaiologos VIII in the second half of the 13<sup>th</sup> century must have actually been the Eleutherios harbour. A community of Jewish leather craftsmen was settled at that harbour until 1453.

By the 14<sup>th</sup> century, the area started to be referred to as *blanka, langa*.

By 1759-1760, the outer harbour was filled in by the construction of the *Laleli* Mosque. Greek and Armenian communities moved to this area in that period. Historians state that the Belisarius tower was used as a bread oven.

The construction of the railway in 1871 demolished most of the ancient harbour walls and the original topographic features of the area were totally altered by the subsequent construction of the shore drive and the Atatürk Avenue.

Even though ancient documents mentioned a harbour in the district of *Yenikapı*, experts were rather surprised when they first stumbled upon it. The site has since grown into the largest archaeological dig in the history of Istanbul.

Three papers in this volume (Kocabaş, Kocabaş Özsait, Türkmenoğlu) reveal how history can be re-written.

### ***Development of the Harbours in Historical Perspective***

When the city was rebuilt by Constantine (AD 330), an important development in sea transportation was seen to parallel the economic recovery. Yet not much changed in the configuration and the function of the ancient harbours (Neorion (Portus Neorii) and Proosphorianos (Portus Prosforianus), Proosphorion/Bosphorion).

Over time, given the rapid population increase, the capacity of the ancient harbours became inadequate. During the reign of Julianus (361-363), a new harbour was built on the south shore of the city towards the Sea of Marmara (Konta(o)skalion/*portus novus/megistos limên*/ Harbour of Julianus/Sophia).

During the reign of Theodosius I (379-395), the Harbour of Theodosius (*Portus Theodasiacus*/Eleutherios, Kaisarios (?)) was established, especially

to disembark the grain imported from Egypt. The storehouses *Horrea Alexandrina* and *Horrea Theodosiana* in the vicinity of this harbour are indicators of a sizable importation.

According to documents, the Bukoleon (*portus olim palatii Imperatoris*, ancient harbour of the Imperial palace) is first mentioned during the 5<sup>th</sup>-6<sup>th</sup> centuries as the quay of the emperors.

The provision of an adequate infrastructure in terms of defence, water supply, harbour installations and storage of foodstuffs was completed by AD 500 (Mango 1985).

During the 7<sup>th</sup> to the 13<sup>th</sup> centuries, the food supply of the city was once again brought in through the ancient harbours of the Golden Horn since the southern harbours were not adequately protected from winds or enemy attacks.

The consequences of the fourth Crusade in the 13<sup>th</sup> century, as well as the Latin Colonies and the harbours in the Pera district on the far side of the Golden Horn are all topics that deserve attention and further research.

This paper has focused on the development of a network of harbours and highlighted the importance of the Marmaray project. This project has not only defined the transportation web of a huge metropolis but has also put forward an amazing series of issues to be discovered by archaeologists and social scientists alike<sup>8</sup>.

### **Notes**

- 1 These scholars enlighten us not only by referring to ancient documents but also to their own field work on the topography of Istanbul. Even though the book of Janine is indispensable, we should use it with prudence as observed by Mango (1984: 11). Those who are interested in more detailed information, should refer to H. Ahrweiler's seminal book, *Byzance et la Mer* (Ahrweiler 1966, Paris), which discusses the economic, political and naval activities of the Byzantine Empire from 7<sup>th</sup> to the 15<sup>th</sup> centuries.
- 2 According to Janin: Harbour of Eleutherios/Theodosius, Harbour of Cesarius, Harbour of Kontoskelion, Harbour of Kontoskelion of Michael VIII Paleologos, Harbour of Heptaskalon, Harbour of Kontoskalion of John VIII Paleologos, Harbour of Julianus/Sophia, Harbour of Boukoleon. According to Müller-Wiener: Harbour of Proosphorianos (Portus Prosforianus), Harbour of Neorion (Portus Neorii), Harbour of Bukoleon, Harbour of Eleutherios/Theodosios (Portus Theodasiacus), Harbour of Heptaskalion, Harbour of Kontaskalion.

- 3 I would like to thank Zeynep Kızıltan, directress of the Archaeological Museums of Istanbul and vice-director Rahmi Asal, for their precious input. See also the catalogue of findings in *Gün Işığında 2007*: 110-123.
- 4 Zeynep Kızıltan, has kindly granted me permission to use this picture. Recently, archaeologists have recovered a wooden structure below this level which can be interpreted as a quay.
- 5 This photograph is also reproduced with the permission of Zeynep Kızıltan. Earlier architectural remnants are being discovered as the excavation continues.
- 6 I would like to thank Jean-Pierre Sodini for helping me interpret this picture.
- 7 In a personal communication about Heptaskalon, Cyril Mango states that: "The name (=yedi iskele) does not appear before the 9<sup>th</sup>-10<sup>th</sup> century. As far as I know, it was not a purpose-built harbour, but a bay that had a high concentration of jetties. It is associated with the very old church of St. Akakios, which was, roughly, at *Unkaparı*".
- 8 I would like to thank Cyril Mango, for reading this paper and making helpful suggestions.

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