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(Hrsg.)

Band 1

Häfen und Hafenstädte im östlichen Mittelmeerraum Harbors and Harbor Cities in the Eastern Mediterranean



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YAYINLARI

Häfen und Hafenstädte im östlichen
Mittelmeerraum von der Antike bis
in byzantinische Zeit.
Neue Entdeckungen und aktuelle
Forschungsansätze

*Harbors and Harbor Cities in the
Eastern Mediterranean from Antiquity
to the Byzantine Period:
Recent Discoveries and Current Approaches*

Hrsg. von
Sabine Ladstätter – Felix Pirson – Thomas Schmidts

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Küçükçekmece Lake's Basin Antique Harbours

Şengül AYDINGÜN – Haldun AYDINGÜN – Hakan ÖNİZ*

Abstract

In 2007 an international team headed by Dr. Şengül Aydingün from the University of Kocaeli started archaeological investigations on the banks of İstanbul Küçükçekmece Lake. These investigations are part of the Project »Prehistoric Studies on İstanbul« (İstanbul Tarih Öncesi Araştırmaları – İTA). In addition to a PPNB-period Neolithic settlement on the banks of Avcılar-Firuzköy-Peninsula, regular rows of stones were identified at the top of the same peninsula. These must have belonged to major late Roman harbour structures. Underwater investigations and geophysical surveys within the lake identified remains tentatively identified as a possible lighthouse, which appears to have had two construction phases. A second harbour structure with several kilometres of defensive walls and a mole was recorded in the northeastern part of the lake. Further building remains were observed on the banks. These can be dated to the Hellenistic, Late Roman and Byzantine periods. The current excavations concentrate on the ancient streets leading to the harbour remains, on an apsidal building and on a 120 × 20 meter large open cistern, which was constructed using stamped bricks.

Özet

»İstanbul Tarih Öncesi Araştırmaları« İTA projesi kapsamında, İstanbul Küçükçekmece Gölü kıyılarında arkeolojik tespit çalışmalarına 2007 yılında Kocaeli Üniversitesinden Yardımcı Doç. Dr. Şengül Aydingün başkanlığında uluslararası bir bilim ekibiyle başlanılmıştır. Küçükçekmece gölünün Avcılar Firuzköy Yarımadası kıyılarında tespit edilen PPNB Neolitik yerleşmenin yanında, yarımadaının ucunda fark edilen düzgün taş sıralarının. Geç Roma dönemine ait büyük bir liman yapısı olduğu anlaşılmıştır. Göl içinde yapılan Sualtı ve Jeofizik çalışmalar sırasında Küçükçekmece gölünün içinde iki ayrı dönemde imar gördüğü düşünülen olasılıkla bir

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fener yapısına ait kalıntılar da fark edilmiştir. Ayrıca gölün kuzeydoğusunda üzerinde birkaç kilometrelik surlarla çevrili ikinci bir liman yapısı, mendirek ile kıyılarda Hellenistik-Geç Roma-Bizans dönemlerine ait olduğu düşünülen çok sayıda yapı kalıntıları tespit edilmiştir. 2009 yılında başlayan arkeolojik kazılar bu yapılar çevresinde yürütülmektedir. Karadan Liman kalıntılarına uzanan antikyollar ve damgalı tuğlalardan inşa edilmiş 120 × 20 m'lik bir açık sarnıç ve apsisli bir yapı, kazıların şimdilik merkezini oluşturmaktadır.

Küçükçekmece Lake basin is shared by the two municipalities of Istanbul, Avcılar and Küçükçekmece. The surveys carried out during the seasons of 2007 and 2008 provided very interesting results and discoveries revealing the archaeological importance of the area. Amongst the significant discoveries were some PPNB tools and cores, two ancient harbors, a lighthouse ruin under lake water and ancient roads.

Consequently, in July 2009 the Council of Ministers issued a decree granting permission for an urgent start of archaeological excavations. Beginning in the same season, under the directorship of Kocaeli University, a multidisciplinary project was initiated with scientists from Istanbul University, Bristol University, East Mediterranean University, Den Haag University, Madrid Autonomo University and archaeology students from a much wider range of institutions.

The Great Harbor

During the initial survey, it became clear that the tip of the Avcılar Firuzkoy peninsula extending towards the lake is man-made, and it shows all the properties of an ancient harbor (Fig. 1). The site is currently named by the team as the ›Great Harbor‹. The very dense vegetation was cleaned with the manpower supplied by Avcılar Municipality and a flat area of land was obtained, permitting both a better assessment of the surface features of the harbor and the possibility of georadar use (Fig. 2).



Fig. 1
Satellite photo from Google Earth.
Various excavation areas (Google Earth)

The Great Harbor contains almost uninterrupted seaside terrace walls on both sides, formed with ashlar blocks of very good craftsmanship, as facing for a rubble core. The thickness is 1.5 m. Immediately behind these are remains of an Ottoman period farm house with its cistern and a pool (Fig. 3).

A channel from the cistern to the lake was first noticed during the georadar survey carried out by the Bristol University team and later confirmed by a trench of 1 × 2 m. The same team also took dendrochronology samples from the wood recovered from the cistern. The area protrudes towards the lake and there are quadrangular building foundations at the end of the peninsula, under shallow water. In addition, 300 m from the shore, under the water, are the foundations of two square buildings, constructed at different times but probably made for the same purpose: an ancient lighthouse. It is likely that this entire complex, complete with its lighthouse, was an important harbor. Dr. Hakan Öniz, an underwater archaeologist from East Mediterranean University, is planning to resume his work on the lighthouse in the coming seasons.

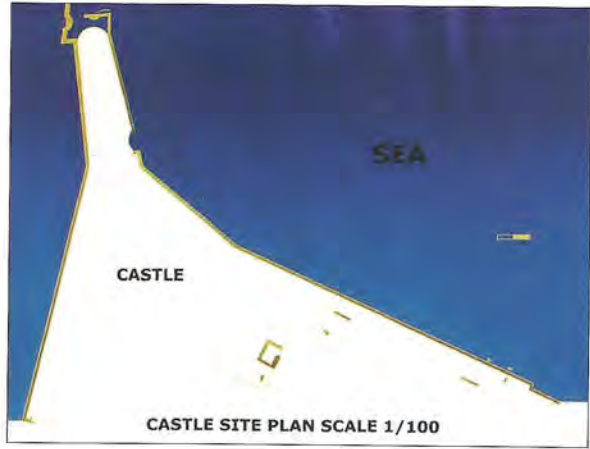


Fig. 2 Drawing of the Great Harbor (H. Öniz)



Fig. 3 Part of the lake side wall which extends for kilometers (H. Aydingün)

Small Harbor

Approximately 2 km north of the Great Harbor, another group of architectural remains attracted the team's interest. After workers cleaned dense vegetation, a group of religious buildings with a network of ancient roads appeared. These were important as they reveal the connections between the harbors, urban areas and the Via Egnatia, the highway of ancient times, connecting New Rome to the old capital and passing from the north of the peninsula. This second excavation area is believed to contain the main urban center of the antique settlement under investigation, and it is partly covered by late Ottoman period farm buildings. On the lake side, a smaller harbor with two quays was also discovered. The first excavation was carried out on the southern quay. The team excavated to a depth of 1 m and cleared a surface area of 3 × 10 m. The masonry was constructed with good quality cut stones on the borders, joined with metallic clamps and filled on the inside with lower quality stones. Thanks to the existence and shape of clamps it is possible to date the quay to the Early Roman Period. The harbor served as a gateway to the outer world for the town behind it. During the excavation, the cleaning of the vegetation continued towards the second quay at the north. The distance between the two quays is 100 m (**Fig. 4**).

The wall, both on the south and on the north of small harbor, continues along the shore. The remains are constructed of two or three lines of stones. Spolia are also included among these stones, for example a Corinthian column capital dating to the 1st or 2nd century B.C.E., column shafts, column bases, and large circular blocks.

Along the wall, we also discovered a number of rectangular blocks with holes, probably used to moor ships, and foundations of some rectangular buildings protruding into the lake.



Fig. 4 Small Harbor (H. Öviz)



Fig. 5 Ancient roads. (1) Roman, (2) Byzantine, (3) Ottoman (M. Öztürk)

Antique Road

The road excavated by Emre Gldođan is covered with stone and marble. It lies very close to the present day surface. In some places, the width of the road measures up to 8 m. During the investigation of the deeper layers, three different phases of the road were established. The uppermost road was dated to the early Ottoman period (early 15th century). 50 cm below was a Byzantine one, and a further 45 cm below, the Roman road. The roads extend towards the lake, to the Small Harbor (**Fig. 5**).

Water Building (Open Cistern)

A third excavation area was identified to the north-north-east of the second site, at a distance of exactly 1 km. Two experts from the Avcilar Municipality, KUDEP department, art historian Cafer Tayyar Emre and archaeologist Ahmet Arslandođmuş, showed us the remains. This area was the focus of intensive investigation during the 2011 season. An open cistern of 120 × 11 m was discovered. The excavation, initiated after a comprehensive surface survey, was led by archaeologist Umran Yrk Planken.

After removing much of the extremely dense vegetation resembling a pristine rain forest, the actual digging could be initiated; this very quickly revealed brick masonry covered with a thick plaster (**Fig. 6**).

Excavations began dig as deep as possible in front of the wall lying in an east-west direction. In the meantime, the digging extended through the west side wall, continuing to



Fig. 6 Open Cistern (H. Aydıngün)

the south to understand the extent of the building. The trenches and surface cleanings gave the initial length of this west wall as 120 m, of which only 60 m were uncovered in the 2011 season. Due to the inclination of the ground sloping towards the east, towards the lake's edge, ancient and recent landslides had already covered much of the wall. At a depth of 30 cm a heavily plastered wall was brought to light. Investigations of the fallen plaster collected from the ground revealed that the original plaster was made of a 5 cm thick mortar and a 0.5 cm layer of insulation plaster.

Deeper excavation allowed a better understanding of the detailed plan of the building. The two walls, the north-south wall and the east-west one, do not intersect with each other with a clear 90 degree corner, but instead have a slightly curved intersection. The procession of the arched niches, probably to make the building strong enough to withstand the pressure of the unstable ground, is another interesting feature of the construction; nine of such arches were revealed during the excavation.

As the excavation proceeded, at a depth of 2.1 m, regularly installed earthenware water pipes were found. When the pipes were cleaned it was discovered that their function was not to carry in or discharge water, but that they were intentionally designed as closed containers. The ultimate purpose of the closed pipes on the walls will probably be more fully understood with more excavation and research.

It also became clear that the floor was plastered with a mortar prepared by a reddish, dense brick powder.



Fig. 7 Fragments of bricks with a cross and ›KWNCTANS‹ / ›KONCTANTINE‹ stamp-seals (H. Aydingün)

A water tunnel, approx. 20 m to the west of the wall of the cistern was also discovered. It is very well preserved, and just large enough to allow an adult to enter it. It probably represents one of the main water sources in antiquity, and it also provided clean water for the team during the 2011 season.

Inside, the cross-section of the tunnel is roughly 50 × 50 cm, and square shaped. It is covered by clean cut stones; the side walls and probably also the floor were carefully plastered.

During the 2011 excavation season a great number of stamped bricks were uncovered. They were dated to 4th and 5th century CE by Prof. Dr. Mustafa Hamdi Sayar (Fig. 7).

The existence of this tunnel discovered during the 2011 season, together with the accompanying monumental buildings related closely with water, lead some experts to propose that one of the major aqueducts ran from our site. Also, Dr. Özkan Ertuğrul, the team expert on water lines and Byzantine Studies, claims that the aqueduct line of Aretas-Hepdomon (Bakırköy), known from ancient sources but not yet discovered, should be sought in this area.

On the other hand, the topography of the land upon which the open cistern is built raises the question of whether a reasonably large flow of water could be delivered from the newly discovered cistern to Constantinople. The differences in elevations would make the task very difficult for the Roman engineers. With future work and research, it may become evident that we are dealing with a large water facility, constructed to be used in this area, for reasons which are not yet fully understood.

The focus of this symposium is ancient harbors and related buildings; therefore, the paper was limited accordingly. The excavation area, however, already revealed much more than this: also discovered were stone tools from both the Paleolithic and Neolithic eras and a number of already uncovered classical buildings. Furthermore, thanks to the previous seasons' georadar survey, a Hippodamian-planned town, many circular buildings, long ditches or walls beneath the fields and a number of buildings readily visible to a trained eye await further research in future seasons. Additional information on these discoveries is provided in the papers listed in the bibliography below.

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