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UNDERGROUND STRUCTURES FROM ISTANBUL ÇATALCA/MALTEPE

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Abstract

Archaeological fieldwork has been undertaken in the western peripheries of Istanbul province since 2007 under the directorship of Assoc. Prof. Şengül Aydıngün of Kocaeli University, as part of the Istanbul Prehistoric Research Project (ITA). In field surveys carried out in Çatalca district, two man-made underground structures were located at the top of Maltepe, a plateau of limestone origin, situated in the upper fringes of the valley system created by the Karasu Stream. The structures in question were investigated in 2011, 2012 and 2013; and identified as a cult pit and a cistern system. They are characterized and dated based on their architectural features and material found in them; and presented in this paper to the scientific community as a cooperate study of speleologists and archaeologists. The pit and the cistern are named by our scientific committee as the “Thracian Cult Pit” and “Two Chamber Byzantine Cistern” respectively. The former was determined to have been used from the 3rd millennium to the 1st century B.C., while the latter is thought to have been used from the 12th to the 13th century A.D.

Keywords: Istanbul, Çatalca, İncegiz, Maltepe, Cistern, Thracian, Cult.

Riassunto

Il lavoro archeologico sul campo è stato intrapreso dal 2007 nelle periferie occidentali della provincia di Istanbul sotto la direzione del Prof. Assoc. Şengül Aydıngün della Kocaeli University, come parte del progetto di ricerca Istanbul preistorica (ITA). Le indagini condotte nel distretto di Çatalca riguardavano due strutture sotterranee artificiali situate nella parte superiore di Maltepe, un altopiano di origine calcarea, ubicato nelle frange superiori del sistema vallivo creato dal Torrente Karasu. Le strutture oggetto dello studio sono state esaminate nel 2011, 2012 e 2013 e identificate come un pozzo culturale e una cisterna. Sono state definite e datate in base alle loro caratteristiche architettoniche e ai materiali presenti in esse e vengono presentate in questo lavoro alla comunità scientifica come esempio di studio in collaborazione fra speleologi ed archeologi. La fossa e la cisterna sono indicate dal nostro comitato scientifico rispettivamente come “Fossa di culto della Tracia” e “Cisterna Bizantina a due camere”. La prima è stata utilizzata dal terzo millennio al I secolo a.C., mentre la seconda si pensa possa essere stata utilizzata fra il XII e il XIII secolo d.C.

Parole Chiave: Istanbul, Çatalca, İncegiz, Maltepe, Cisterna, Thracian, Culto.

Introduction

The man-made, multi-story Byzantine monastery caves and rock-cut churches in the deep valley formed by the Karasu Stream have been known by the scientific community since the 1950's (DIRIMTEKIN 1957a, 1957b; Fig. 1). These caves are situated near the İncegiz village, 9 km NW of Çatalca, the most NW district of Istanbul. Thanks to their geological texture, the limestone formations in this area provided structures that can be easily hewn and comfortably used by humans. As DIRIMTEKIN points out, the monastery-cave and the rock-cut church system had been used from the 4th century until the end of the 12th century A.D. (DIRIMTEKIN 1957b; Fig. 2). However, in 1992 it became

clear that the area had been settled since much earlier periods thanks to the rescue excavations of the Istanbul Archaeological Museum.

The directorate of Istanbul Archaeological Museum carried out excavations between 1992 and 1995 to urgently rescue the ancient tombs that had been unearthed by illicit diggers in the area called Maltepe. This is a plateau stretching in N-S direction at the top of the formation that hosts the rock-cut cave system of İncegiz. These fieldworks identified a residential area, a necropolis, an ancient road, waterways and an ancient water source that are dated between the 3rd century B.C. and the 5th century A.D. (PASINLI et al., 1997). Hence, the rescue work ascertained that the



Fig. 1: study area (source Google Earth).
Fig. 1: area di studio (da Google Earth).

earliest habitation in the area started at the hilltop long before the beginning of activity in the Inceğiz Caves down on the hillside. Consequently, the locality of Maltepe was evidenced to have hosted a Thracian village or a small town that had intense trade contacts with Byzantium and Perinthos (PASINLI et al. 1995), both having a similar Aphrodite cult. According to PASINLI, the dwellers of this ancient village might have started using the cave shrines down on the hillside after the 4th century A.D., following the adoption of Christianity (PASINLI et al. 1996). These excavations, however, were confined only to the S sector of the plateau and did not expand towards NW (PASINLI et al., 1994, 1995, 1996, 1997).

Having considered that the region had not been investigated for nearly twenty years, the scientific committee of the Istanbul Prehistoric Research Project decided that the area should be re-surveyed. The aim of this research was to clarify if it was inhabited in earlier periods than those so far identified. In new field surveys, two deep, well-like shafts were encountered in the Maltepe area, which have not been reported in the museum excavations. The reports of the museum fieldwork only spared a few sentences to remark the presence of a water canal discovered in 1994. It has been stated that the canal could lead to potential cisterns, as it continued towards the NW tip of the plateau, where



Fig. 3: underground structures studied (source Google Earth).
Fig. 3: strutture sotterranee studiate (da Google Earth).

the remains of a settlement had already been identified (PASINLI et al., 1996).

Accordingly, we tried to understand whether the two new shafts were cisterns or structures serving a different function. In consequence, it has been decided to carry out the detailed investigation of the structures, whose primary examination had been performed by archaeologist HALDUN AYDINGÜN from the scientific committee of the research project. However, specialist researchers from speleology were required for a more comprehensive exploration of such structures. By this necessity, members of Anatolian Speleological Society (ASPEG) were invited for assistance. Following the survey and investigations of the speleology team, sufficient evidence became available for our scientific committee to define and name these structures as the Thracian Cult Pit and the Two Chamber Byzantine Cistern (Fig. 3).

Thracian Cult Pit

The entrance of this pit was observed to be a precise square of 230 x 230 cm dimensions, clearly indicating that the structure was man-made (Figs 4 and 5). Besides, each corner of this square were precisely pointing towards one cardinal direction, manifesting that the digging of this pit was not a haphazard act but a careful and well-planned undertaking from the



Fig. 2: Byzantine monastery caves and rock-cut churches near Inceğiz Village (photo Haldun Aydingün).
Fig. 2: monastero bizantino e chiese rupestri vicino al villaggio di Inceğiz (foto Haldun Aydingün).



Fig. 4: entrance of the Thracian cult pit (photo Haldun Aydingün).
Fig. 4: ingresso della fossa di culto della Tracia (foto Haldun Aydingün).



Fig. 5: Thracian cult pit (photo Metin Albukrek).

Fig. 5: fossa di culto della Tracia (foto Metin Albukrek).

beginning. In our investigation it became clear that a pyramidal structure with a cut-off top was created by gradually widening the pit towards the bottom (Fig. 6). The bedrock, into which this structure was dug, is a limestone formation of Eocen age, which is designated by geologists as the Çatalca Formation (AKARTUNA, 1953). This pyramidal pit, the counterpart of which is known in Bulgaria (FOL, 1998), is nearly 8 m deep. The bottom of the pit is covered by a dense deposit of earth that is 2-3 m thick. It was due to this deposit that we were not able to determine if the structure has other compartments. A part of this earth deposit was found scattered haphazardly by the entrance of the pit, which indicates activity of illicit diggers. A pile of archaeological finds, which had apparently been recovered by these people from the earth deposit, was found right at the pit's entrance.

The pile contains ceramic sherds dated to the timespan between the 3rd millennium and the 1st century B.C. The earliest sherds are of a hand-made, dark-colored, polished type with inverted rims, which is well known from the major Bronze Age center of Troy I and dated to the Early Bronze Age I period (early 3rd millennium B.C.; Fig. 7).

The group of sherds that comes next in the line of chronology belongs to the wheel-made, grey ware tradition of early 2nd millennium NW Anatolia, which is designated in recent years as the "Anatolian Grey Ware" (Fig. 8). A single well-slipped and quite lustrous sherd resembles the Grey Ware of the Greek Mainland

from the same period (Fig. 9). The sherds of Anatolian Grey Ware are predominantly body pieces and long handles.

Besides these types, hand-made, thumb-impressed, banded sherds and applique plaques of the so-called Barbarian Ware were recovered (Fig. 10). The Barbarian Ware is regarded as an especially significant type of pottery as it is commonly considered as trace of Thracian peoples, who migrated into Anatolia around 1200 B.C. The recovery of the first examples of this pottery in Level VIIb1 settlement of Troy led to the presumption that peoples of Thracian/Phrygian origin must have crossed the Dardanelles in their migration into the interior of Anatolia. However, ancient authors wrote that these Balkan peoples moved into Anatolia around this time along two distinct routes, one across the Dardanelles, and other across the Bosphorus (HERODOTUS; HOMEROS; STRABON; BLEGEN 1958). While the evidence for the former route is progressively gaining strength through excavations at Troy (BLEGEN, 1958; KOPPENHÖFER, 1997, 2002) and Kilisetepe in Gelibolu (SAZCI, 2012), the evidence for the latter route was almost nonexistent until recently. The only example of the Barbarian Ware from around Istanbul was a small and somewhat neglected sherd found at the construction site of an extension to the Istanbul Archaeological Museum (DÖNMEZ, 2006). The occurrence of the Barbarian Ware in significant quantities in our fieldwork in Çatalca enabled us to present these finds to the scientific community as the

THRACIAN CULTIC PIT
Maltepe Necropole,
İnceğiz, Çatalca, ISTANBUL / TURKEY

Elevation: 140 m

Depth: -9.7 m

Survey and Drawing by: Hakan Eğilmez, İlker Gürbüz

December 2011 and August 2012

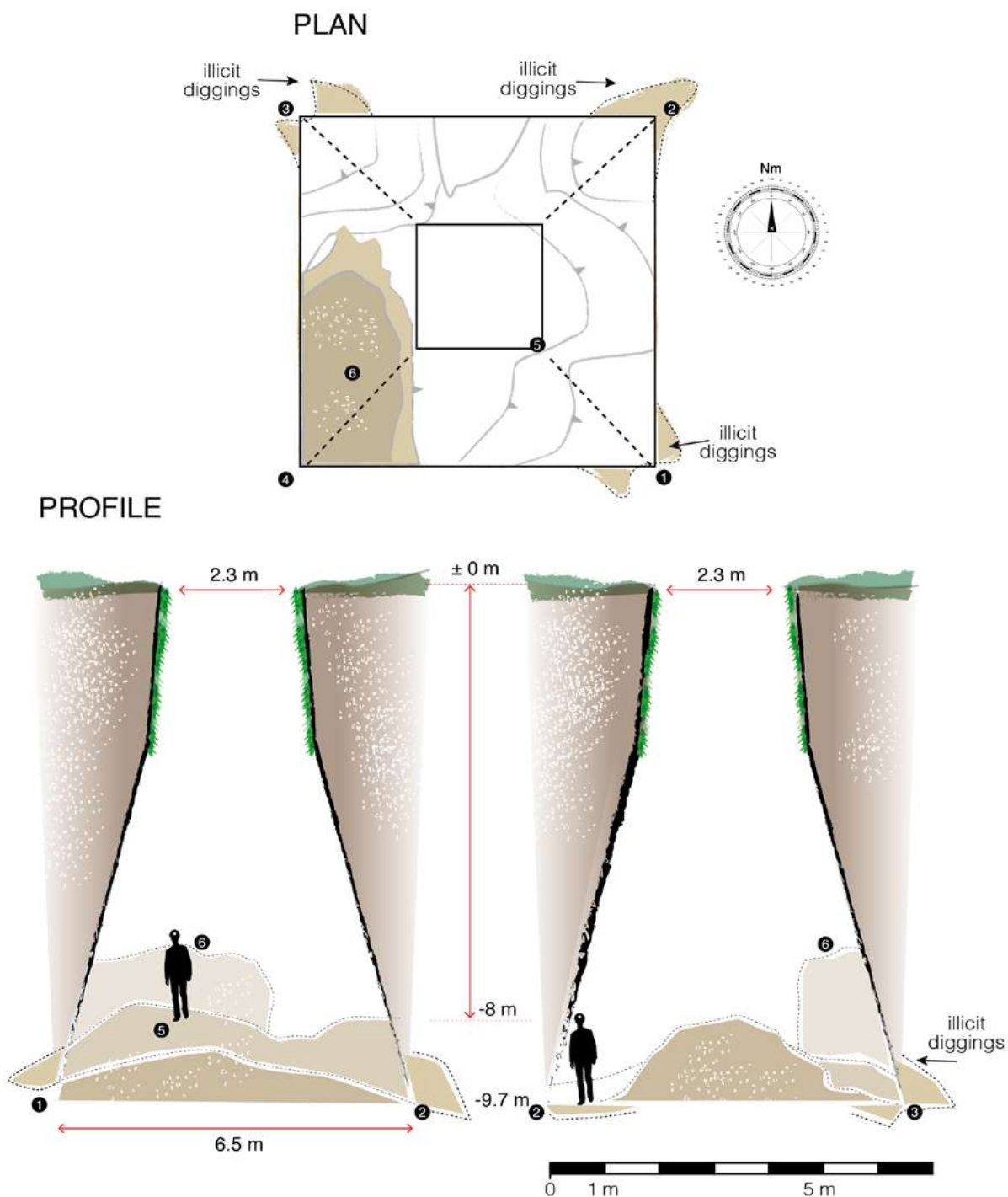


Fig. 6: Thracian cult pit (survey and drawing Hakan Eğilmez, İlker Gürbüz)

Fig. 6: fossa di culto della Tracia (rilievo e restituzione grafica Hakan Eğilmez, İlker Gürbüz)



Fig. 7: early Bronze Age I - handle (photo Haldun Aydingün).
Fig. 7: prima Età del Bronzo - manico (foto Haldun Aydingün).

first evidence for the movement of Thracians/Phrygians across the Bosphorus (AYDINGÜN & AYDINGÜN, 2013). Large quantities of burnt animal bones (dog, sheep and horse), and a few burnt human bones were also attested in the thick soil deposit inside the pit. This evidence lead to the presumption that following the cremation of the deceased, sacrificial rituals were practiced by



Fig. 8: sherds of Anatolian Grey Ware (photo Haldun Aydingün).
Fig. 8: frammenti di ceramica grigia dell'Anatolia (foto Haldun Aydingün).



Fig. 9: sherd of grey ware from Mainland Greece (drawing Burhan Gülkan, photo Haldun Aydingün).

Fig. 9: frammento di ceramica grigia della Grecia continentale (elaborazione grafica Burhan Gülkan, foto Haldun Aydingün).

the pit, which involved deposition of animal bones and broken pottery as offerings. Also to note is the recovery of iron slags and ores inside and around the pit, which demonstrated that people of the area knew how to work iron. As a parallel event, a small iron mine was also discovered by our research team on a sloping hill near the Çakıl Village, not far from Incegiz,. Finally,



Fig. 10: sherds of Barbarian ware (photo Haldun Aydingün).
Fig. 10: frammenti di ceramica barbarica (foto Haldun Aydingün).

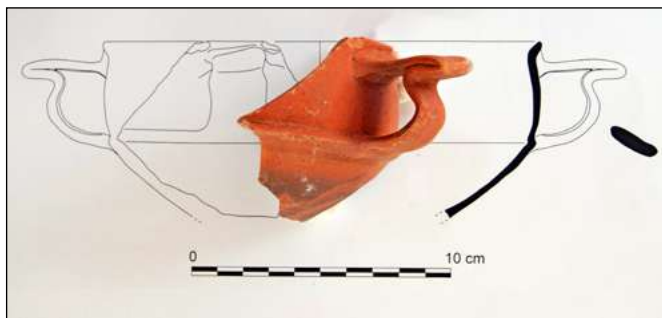


Fig. 11: Hellenistic-Roman vessel (drawing Burhan Gülkan, photo Haldun Aydingün).

Fig.11: vasellame Ellenistico-Romano (restituzione grafica Burhan Gülkan, foto Haldun Aydingün).

TWO CHAMBER BYZANTINE CISTERN **Maltepe Necropole,** **İnceğiz, Çatalca / İSTANBUL TURKEY**

Elevation: 140 m

Depth: -8 m

Survey and Drawing by: Hakan Eğilmez, Ilker Gürbüz

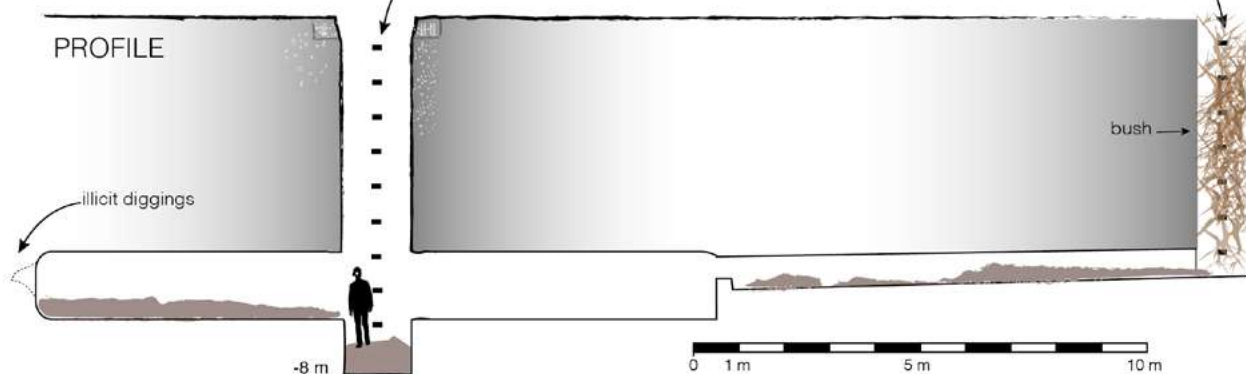


December 2011

PLAN

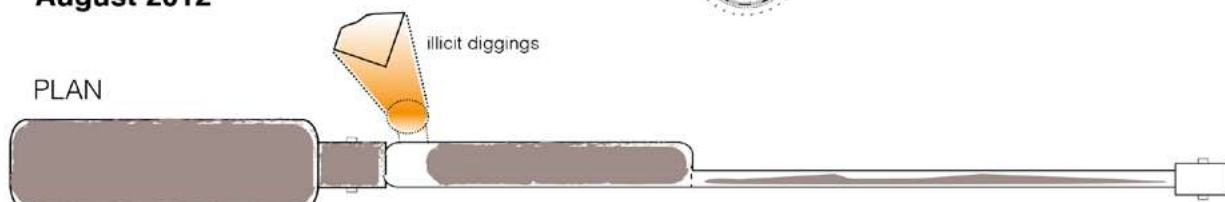


PROFILE



August 2012

PLAN



PROFILE

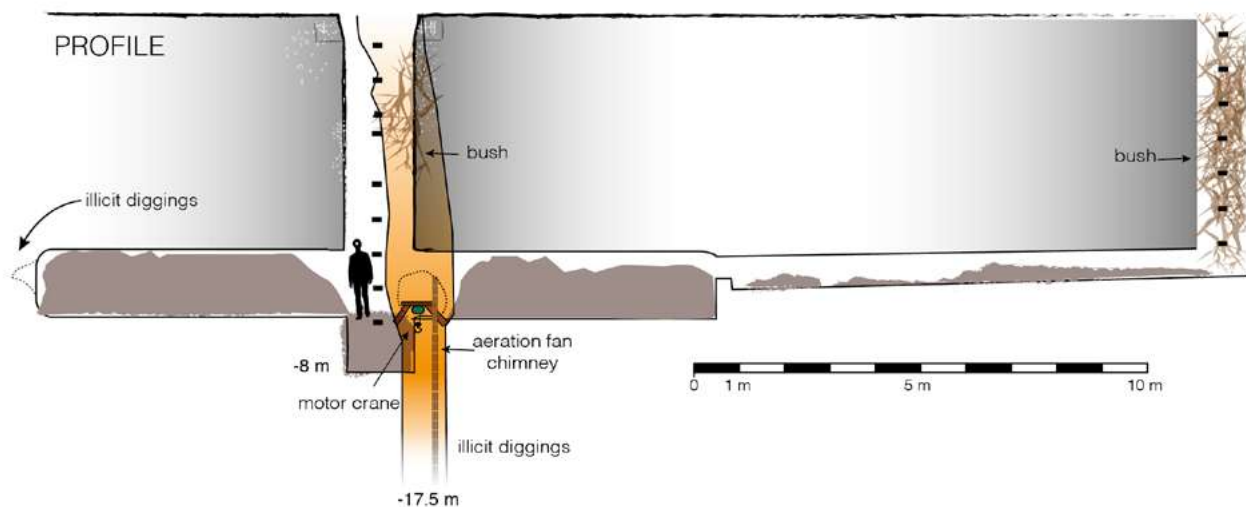


Fig. 12: double chamber Byzantine cistern before and after illicit diggings (survey and drawing Hakan Eğilmez, Ilker Gürbüz).

Fig. 12: cisterna Bizantina a doppia camera prima e dopo scavi illeciti (rilievo e restituzione grafica Hakan Eğilmez, Ilker Gürbüz).



Fig. 13: double chamber Byzantine cistern: larger entrance shaft (photo Haldun Aydingün).

Fig. 13: cisterna Bizantina a doppia camera: il più grande pozzo di ingresso (foto Haldun Aydingün).

there are the megalithic monuments, the stone blocks of which were found scattered in this area. Based on these pieces of evidence, the presence of Thracian/Phrygian peoples in this region now became more visible than before.

Numerous pieces of *lekythoi*, *skyphoi*, *kantharoi*, *megarian* bowls and amphorae (Fig. 11) were also found scattered by illicit diggers, which demonstrate that the pit was also used after the Iron Age, during the Hellenistic and Roman periods. These pieces belong to high quality and apparently expensive vessels for their time. The evidence indicates that the pit attracted local people for several millennia to be used for cult purposes. This ceremonial significance should be the result of spiritual meanings attributed to its location and geological features.

Double Chamber Byzantine Cistern

The second underground structure in the Maltepe area is a two-chambered cistern system (Fig. 3) with two entrances (Fig. 12). The larger entrance is an 8 m deep shaft with a regular rectangular cross-section of 150x115 cm dimensions (Fig. 13). The two walls of the shaft that extend in NE-SW direction contain small niches placed at intervals, which served as steps to facilitate climbing down and up (Fig. 14). The second entrance is situated 17.5 m away from the first and has a regular rectangular cross-section of 120x70 cm. Just like the main entrance shaft, the second shaft was also dug vertically from above and likewise provided with

small niches on opposing walls. As this second shaft is filled with branches and rocks thrown in from the outside, it could not have been entered during our research (Fig. 15).

The cistern is accessible from the bottom of the larger shaft and consists of two separate chambers aligned in NW-SE direction (Figs. 16 and 17). The roofs of both chambers were vaulted with a gentle curvature and very neatly plastered. A narrow, gently sloping tunnel connects the upper part of the SE chamber with the lower sector of the second entrance shaft (Fig. 18). This connecting tunnel should have been dug in order to transfer the surface water into the cistern. A dike located at the joint of the tunnel and the chamber was possibly built to prevent the insertion of alluvium into the cistern and keep it inside the tunnel. Thereby, the cleaning of the accumulated silt became possible as it could be reached via the smaller shaft, even when the chamber was full of water. It is generally known that the access shafts of Byzantine cisterns were closed by means of a lid system so that the collected water could remain clean. In our investigations, we could not attest either inside or outside the cistern any remains of stone, metal or brick that could belong to such a system. Taken the 1.5 x 1.15 m dimensions of the shaft into consideration, one can imagine that it could only be closed by a wooden lid.

As this cistern had been continuously disturbed by illicit diggers for many years, a dump of excavation earth has accumulated, from which only a small



Fig. 14: niches in the larger entrance shaft (photo Haldun Aydingün).

Fig. 14: nicchie nel più grande pozzo di ingresso (foto Haldun Aydingün).

number of ceramic sherds were recovered. These pieces predominantly belong to the Early and Middle Byzantine periods. We think that this cistern may have been constructed to supply water to the Monastery Caves that are situated at a lower altitude on the slope of the same geological formation, into which the cistern was dug. It was determined that these caves had been inhabited for a long time starting from the Early Byzantine period (DIRIMTEKIN, 1957a, 1957b), which synchronizes them with the cistern. The construction technique of the shafts, as well as the niches in them have their exact counterparts in the Early Byzantine Manazan Caves near Taşkale in Karaman (GÜNDOĞAN, 1991), which provides one further criterion for the proposed date of the structure. Shaft systems of the same type are also attested in Cappadocia (GÜLYAZ, 2012). The cistern should also have been associated with the water canal identified in the rescue excavations of the museum (PASINLI, 1997).

When we visited the site in August 2012, we witnessed that illicit diggers had entered and disturbed the cistern. They apparently discovered a shallow pit in bedrock on the E side of the larger entrance shaft and dug into it to a depth of 17.5 m. They eventually



Fig. 15: double chamber Byzantine cistern: smaller entrance shaft (photo Metin Albukrek).

Fig. 15: cisterna Bizantina a doppia camera: il più piccolo pozzo di ingresso (foto Metin Albukrek).

accessed the smaller chamber through a horizontal tunnel, disturbing the original structure. The shallow pit, where these people started digging, is well dressed on its S and W sides, and could be an unfinished shaft of the cistern. Unfortunately, both chambers of the cistern are partially filled with rubble excavated in these illegal activities (Fig. 12).

Conclusions

Recent discoveries by the Istanbul Prehistoric Research Project near the Inceğiz Village of Çatalca district prove that the area was used for cult and domestic purposes much earlier than previously thought. When we consider the evidence from the two new underground structures together with earlier research at rock-cut Byzantine shrines, it is ascertained that the habitation of the area extends from the beginning of the 3rd millennium B.C. until the end of the 12th century A.D. This is not a surprising result given the soft limestone formations that are easy to cut, the fertile soil that is suitable for agriculture, the temperate climate of the region, and the somewhat secluded and protected character of the Karasu valley system. However, if more systematic and comprehensive excavations will be carried out, it seems possible that the history of the region can be extended even into earlier prehistory.

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Fig. 16: view from the SE chamber towards main entrance (photo Haldun Aydingün).

Fig. 16: vista dalla camera di SE attraverso il grande ingresso (foto Haldun Aydingün).

References

AKARTUNA M., 1953, *Çatalca-Karacaköy Bölgesinin Jeolojisi*. Istanbul Üniversitesi Fen Fakültesi Monografileri, 13, Istanbul.

AYDINGÜN Ş. and AYDINGÜN H., 2013, *Erken Demirçag'da Istanbul Boğazi Üzerinden Trak/Frig Kavimlerinin Geçişine Ait İlk Bulgular*. Arkeoloji ve Sanat 142, pp. 65-78.

BLEGEN C.W., BOULTER C.G., CASKEY J.L., and RAWSON M.,

1958, *Troy. Excavations Conducted by the University of Cincinnati 1932 – 1938*, vol. IV. Settlements VIIa, VIIb and VIII. Princeton.

DIRIMTEKIN F., 1957a, *İnceğiz Mıntıkasındaki Mağara-Manastır ve Kiliseleri*, Türk Arkeoloji Dergisi VII/ 2, pp. 26-31.

DIRIMTEKIN F., 1957b, *İnceğiz Kaya Kiliseleri*, Türk Etnoğrafya Dergisi 7/2.

DÖNMEZ Ş., 2006, *The Prehistory of the Istanbul Region*:



Fig. 17: double chamber Byzantine cistern: NW chamber (photo Haldun Aydingün).

Fig. 17: cisterna Bizantina a doppia camera: la camera di NW (foto: Haldun Aydingün).



Fig. 18: horizontal tunnel: entrance in the SE chamber (photo Haldun Aydingün).

Fig. 18: galleria orizzontale: ingresso nella camera di SE (foto Haldun Aydingün).

A Survey. Ancient Near Eastern Studies Journal 43, pp. 239-264.

FOL V., 1998, *Megaliths in Thrace and Phrygia*. In: TUNA N., AKTÜRE, Z. and LYNCH M. (eds.) *Thracians and Phrygians: Problem of Parallelism*, Ankara, pp. 19-27.

GÜLYAZ M. E., 2012 *Kapadokya Nevşehir*, Nevşehir Valiliği Yayınları, Istanbul.

GÜNDOĞAN Ş., 1991, *Manazan Caves*. Image of Turkey 46, pp. 24-27.

HERODOTOS, *Historya*, (*Herodot Tarihi*) Translated by: ÖKMEN M., 2002. Türkiye İş Bankası Kültür Yayınları, Istanbul.

HOMEROS, *Iliad (İlyada)*. Translated by: ERHAT A. and KADIR A., 2005. Can Yayınları, Istanbul.

KOPPENHÖFER D., 1997, *Troia VII Versuch einer Zusammen-Schau Einschliesslich Der Ergebnisse Des Jahres 1995*. Studia Troica, vol. 7, pp. 295-353.

KOPPENHÖFER D., 2002, *Buckelkeramik und Barbarische Ware in Troia: Anmerkungen zur Herkunft*. Festschrift für Manfred Kormann, Mauerschau Band 2,

Remshalden-Grunbach, pp. 679-704.

PASINLI, A., GÖKYILDIRIM T., BIRGILI T., and DÜZGÜNER F., 1994, *İnceğiz-Maltepe Nekropolü 1992 Yılı Kurtarma Kazısı*. IV. Müze Kurtarma Kazıları Semineri, Ankara, pp. 339-356.

PASINLI, A., GÖKYILDIRIM T., and DÜZGÜNER F., 1995, *İnceğiz-Maltepe Nekropolü 1993 Yılı Kurtarma Kazısı*. V. Müze Kurtarma Kazıları Semineri, Ankara, pp. 345-364.

PASINLI, A., GÖKYILDIRIM T., DÜZGÜNER F., and GÜVEN F., 1996, *Çatalca-İnceğiz Köyü Maltepe Nekropolü 1994 Yılı Kurtarma Kazısı*, VI. Müze Kurtarma Kazıları Semineri, Ankara, pp. 205-220.

PASINLI, A., GÖKYILDIRIM T., DÜZGÜNER F., and GÜVEN F., 1997, *Çatalca-İnceğiz Köyü Maltepe Nekropolü 1995 Yılı Kurtarma Kazısı*, VII. Müze Kurtarma Kazıları Semineri, Ankara, pp. 77-88.

STRABON, *Geographica XII, XIII, XIV*, (*Antik Anadolu Coğrafyası Kitap XII, XIII ve XIV*) Translated by: PEKMAN A., 1993. Arkeoloji ve Sanat Yayınları, Istanbul.