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# Excavations at the “Fatih Foundry” in Demirköy: The 2003-2004 Season

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The so-called “Fatih Foundry” complex is located near the Demirköy Town of the Kırklareli Province (fig.1). There was once a village nearby inhabited by the Christian populations. The region in which the foundry is located is rich in iron sources. The remains of workshops for metalsmiths and quarries documented in the industrial area at Demirköy imply that these geologic deposits of iron were also exploited in the Ottoman era.<sup>1</sup> The Fatih foundry is the most notable one with its architecture, water-powered system, and adjacent fortress. Demirköy excavation is of great significance because the site represents one of the earliest places that present us with evidence for industrial activities having occurred during the Ottoman times.

The first investigation in the Fatih Foundry area was carried out in 2001 by Zülküf Yılmaz, the director of the Museum of Kırklareli.<sup>2</sup> Then, the archaeological excavations started at the site in 2003 as part of an interdisciplinary project led by Prof. Dr. Ekmeleddin İhsanoğlu, the chairman of the Turkish History of Science Foundation. Archaeological excavations also continued in 2004. The surface surveying carried out within the vicinity of the foundry as part of the project program yielded gravestones dating from the 18<sup>th</sup> to the 19<sup>th</sup> centuries and a marble panel with an inscription bearing the name of the Ottoman Sultan Mahmud II.

The architectural complex under investigation is composed of a small castle measuring approximately 106x62 meters and a foundry located adjacent to it. Archaeological excavations were undertaken in the remains of this building complex during the summers of 2003 and 2004 (fig.2). The corners of this small castle were supported by polygonal towers. Only foundation walls of this

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1 See; Ahmed Hamdi, *Türkiye'nin Sıhhi, İctimâî Coğrafyası, Kırklilise (Kırklareli) Vilâyeti*, (İstanbul: 1341 (1925)), 4; Zülküf Yılmaz, “Demirköy Fatih Dökümhanesi kazı, temizlik, ve çevre düzenleme çalışmaları,” *XIII. Müze Kazı ve Kurtarma Kazılarını Sempozyumu: Denizli, 22-26 Nisan 2002*, (Ankara: 2003), 29.

2 Yılmaz, 29-42.

fortress are partly preserved at present. There are traces of bricks left on the defensive walls pointing to a kind of gabled roof. Remains of a monumental gate are also detectable in the middle part of the northern wall of this castle. In addition, the remains of various structures placed next to the northern wall, as well as the ruins of a minaret and a *masjid* to the southwestern section of the castle are detectable. In the course of the field study in 2001, remains of crucibles and a deep canal have been identified within the foundry, which is located on the south of the castle. There are also two additional canals entering into the foundry from an area near the northwestern part of the castle. The larger of these two canals is connected to the deep canal identified within the foundry. It seems that the water brought through these canals served to operate the wheels of the power system in the foundry.

Following the field investigations in the area, we began to excavate the northern part of this building complex. Excavations of the grids II-B, II-C, II-D, II-E, II-F, II-G, II-H, which correspond to the remains located along the northern wall of the castle, provided us with useful information regarding the stratigraphy of the site. Excavations carried out in these grids identified the remains of a corridor with a stone-paved floor behind the monumental gate. This hall was flanked with the remains of what appear to be the service buildings (fig. 3, 4). At the time when we reached to the virgin soil during the excavations, we had a good knowledge of alterations and restorations made throughout the time when the area was in use. Indeed, the discovery of walls built in different wall techniques, levels showing the damages several fires, and various small objects particularly shed light on the history of the building complex through the 19<sup>th</sup> century.

The phase between a destruction level ended by fire and a level composed of surface rubble is poorly represented. In this phase, one of the niches of the defensive walls to the east of the gate was used as a furnace. The floor of this furnace contained imported oven-bricks with marks of both "ANOHAM & SONS WORTLEY, LEEDS" and "COWEN" (fig. 5). The recovery of local oven-bricks with a mark of "MA'DEN EREGLI" is also noted here (fig. 6). During this phase, stone walls were built in the other niches of this wall. A second furnace has been found in the same phase on the walls of an earlier period.

In the grids II-G and II-H, the remains of a house and a 15 cm thick fire level have been unearthed at a depth of 67 cm below the surface level. A copper coin of Sultan Abdulaziz dated 1281 H (1864/65) was found above this fire level (fig. 7). In terms of ground plan, it is observable that this house had four rooms formed by a cross-like corridor. Wood-flooring has been observed in these four rooms and the corridor. It is evident that this wood-flooring was destroyed by

fire, since burnt wood remains and numerous metal nails were found over the floors of these rooms. Reeds and branches of wood were included in the mud walls of this house. The southwestern room of this house shows the traces of an L-shaped raised platform. Several copper coins minted in the name of the Ottoman Sultan Abdulmecid were found above the floors with signs of fire. These coins, which are dated 1247 H (1857/58) (fig. 8) and 1276 H (1859/60), may serve as *terminus ante quem* for the fire level. The fire documented in the grids II-E and II-F points to a great fire and destruction. The remains of an earlier wall running in east-west direction parallel to the northern wall of the castle were detected at a depth of 99 cm below the surface level in this room.

The results obtained from grids II-E and II-F provided us with results comparable to the ones we obtained from grids II-G and II-H. Grids II-E and II-F contained the remains of a room with an access to the entrance hall and a large hall adjacent to this room. Both structures were built by the simple use of rubble stones and mud. Burnt wood remains of flooring have also been found in this area. Evenly spaced stone footings found in the hall indicate that its roof was supported by the wooden posts. This hall was also damaged by fire. The recovery of a cannon ball in the middle of this hall leads us to consider the possibility that this devastating fire might have occurred during a war. As observed in grid II-F, remains of an earlier wall running parallel to the northern wall of the castle were noted at a depth of 121 cm below the surface level in grid II-E. Traces of local fire are also to be seen within an area surrounded by these early walls.

In the course of the 2004 excavations, those buildings running parallel to the northern wall of the castle continued to be excavated. A small structure was partially excavated in grids II-C and II-D. It is likely that this structure built by brick walls on stone foundations is contemporary to the castle. This structure is formed of a stone-paved entrance, two small rooms, and a domed square room. The clay water-pipes inserted vertically into the walls may indicate that this structure functioned as a bath. But, it may have later been used as a kind of laboratory for analyses. The floor of the rectangular room next to it from the west is partially paved with bricks. Some of these bricks remind early Ottoman examples, while some probably belonged to the Byzantine period. It seems that these early materials were used as a spolia here. Objects such as scissors and pins found in this area imply that this building might have served subsequently as an atelier for a tailor.

The area where the ruins of a masjid were detected was also excavated during the 2004 season (fig. 9). The remains of a basement were uncovered in grids V-C, V-D, VI-C and VI-D. We made it clear at the end of the excavations

that the basement of this rectangular masjid, which was aligned in northwest-southeast direction and had two entrances, was divided into sections by the four rows of pillars. The minaret attached to its western facade is not touched. The brick that fell down from the upper parts of the masjid confirms that it was built in the nineteenth century. The interiors of the bricks bear floral motives in fresco-secco, which also display nineteenth century style (fig. 10). There are comparable masjids with basements in the coastal castles of the 19<sup>th</sup> century. It is also noteworthy that crushed iron deposits were found on the outside of the southwestern and southeastern walls of this masjid.

Among the small finds, coins form the most distinct group in terms of stratigraphy. The earliest of these is an Ottoman silver coin dated 1187 H (1773), i.e. to the reign of the Sultan Mustafa III. (fig. 11) Other Ottoman coins date to the reigns of the sultan Mahmud II (1808-1839), Abdulmecid (1839-1861), and Abdulaziz (1861-1876). Among the coins belonging to the reign of Mahmud II, the one dated 1248 H (1830) was found in the excavations at the masjid, while the gold coin dated 1249 H (1831) was found in the northwestern tower of the castle. All of these Ottoman coins were minted in İstanbul. The recovery of three coins dated 1816 and belonging to the Austrian Empire (fig. 12), a Spanish or Hispanic copper coin with the sign "Plus ultra", and a coin dated 1926 belonging to the Turkish Republic must also be mentioned (fig. 13).

The recovery of cannon balls of various sizes and their molds enhances our understandings of the ways how the foundry functioned. Anvils, sickles, nails found among the debris might have been related to production. However, those cannon shells and rifle bullets probably did not represent their local manufacture as they seem to have ended up here as a result of a battle.

Archaeological excavations also yielded a great amount of pottery fragments dating to the 19<sup>th</sup> century. Among the pottery assemblage, a glazed lid (fig. 14) and a nearly complete jar must represent either Çanakkale or Eyüp works.<sup>3</sup> One British porcelain plate recovered at the site might have arrived during the time when the oven-bricks with British marks made their ways into the site (fig. 15). It is well-known that a porcelain industry developed in Britain in the 19<sup>th</sup> century following the tradition of the Chinese Qing Dynasty.<sup>4</sup> As observed

<sup>3</sup> See, for ceramics of Çanakkale and Eyüp: G. Öney, *Türk Devri Çanakkale Seramikleri*, (İstanbul: 1971); F. Yenişehirlioğlu, "İstanbul – Tekfur Sarayı – Osmanlı Dönemi Çini Fırınları ve Eyüp Çömlekçiler Mahallesi Yüzey Araştırmaları", *XII. Araştırma Sonuçları Toplantısı (30 Mayıs – 03 Haziran 1994, Ankara)*, (Ankara:1995), 535-66; F. Yenişehirlioğlu, "Eyüp'te Bir Çömlekçi Ailesi", *V. Eyüp Sultan Sempozyumu (11-13 Mayıs 2001, İstanbul)*, (2002), 66-71; H. Ö. Barışta, "İstanbul Eyüp Sultan Seramikleri", *Uluslararası Dördüncü Türk Kültürü Kongresi (4-7 Kasım 1997, Ankara)*, (Ankara: 1999), 85-94. Also see, for ceramics of Eyüp: *Evllya Çelebi Seyahatnamesi*, I, transcr. by: O. Ş. Gökyay, (İstanbul:Yapı Kredi Yayınları,1996), 167.

<sup>4</sup> See, for porcelains of the Qing Dynasty; He Li, *Chinese Ceramics*, (London: Thames and Hudson, 1996), 268-9.

in Chinese original porcelain plates, those imitations by the British craftsmen depict similar landscape views.<sup>5</sup> Our imported example from Britain, which bears the sign of "T. Stefanidi" might have been the product of this century as well. We know that British goods were imported following a commercial treaty between the Ottomans and the British in 1838.<sup>6</sup>

Among the unglazed pottery assemblage, several jugs with spherical bodies (fig.16), wide-mouthed jars, and a jar with a cylindrical body are important. However, tobacco pipes made out of red clay constitute the most important group among the unglazed pottery assemblage (fig.17, 18). Some of these tobacco pipes (lüle) decorated in baroque style bear marks on their surfaces. Some of these decorations were also gold gilded. We assume that these tobacco pipes were manufactured in Istanbul or Edirne.<sup>7</sup> Imported glass objects have also been found during the excavations. For example, one of the glass bottles represents a French work.

The results of the two years of excavations at Demirköy can be summarized as follows: we have determined three main constructional phases on the basis of the small finds. The date of the remains of walls identified in the earliest is not clear at this point of the research. In the second phase, this building was renewed by Sultan Mahmud II during the first half of the 19<sup>th</sup> century. This second phase saw the construction of the castle with towers on its corners, structures found along the northern wall of this castle, a bath, and a masjid. These building activities easily fall into the reign of the Sultan Mahmud II, since he was well-reputed with his building programs during this period. In the third phase, those buildings located next to the northern wall of the castle were renewed towards the middle of the 19<sup>th</sup> century with simple techniques involving mud and rubble stones. It seems that this area was possibly destroyed by fire during a war, perhaps the one that took place in 1877/78 between the Ottomans and the Russians. The foundry probably went out of use following this war. The fact that not a single Ottoman coin post-dating the reign of Sultan Abdulaziz was found at the site supports this hypothesis. Several finds and the

5 Robin J. D. Hildyard, *European Ceramics*, (Penn: University of Pennsylvania Press, 1999), 85; Emmanuel Cooper, *Ten Thousand Years of Pottery*, (London: British Museum Press, 2000), 237.

6 Sina Akşin (Ed.), *Türkiye Tarihi*, vol. III, (İstanbul: Cem Yay., 2000), 121-2.

7 See, for various Ottoman pipes; B. Ersoy - S. Beliaeva, "Özi Kalesi (Ukrayna-Ochakiv) Arkeolojik Çalışmaları," *Uluslararası Dördüncü Türk Kültürü Kongresi (4-7 Kasım 1997, Ankara)*, (Ankara: 1999), 263-8; S. Beliaeva, "Ochakiv'deki Türk Şehrinde Arkeolojik Araştırmalar," *Uluslararası Dördüncü Türk Kültürü Kongresi (4-7 Kasım 1997, Ankara)*, (Ankara: 1999), 109-14; C.S. Lightfoot, "Amorium-Hisarçık'ın Selçuklu ve Osmanlı Dönemlerine ait Yerleşim ve Arkeolojisi," *Sanat Tarihi Dergisi*, IX, (İzmir:1998), 75-84; G. Cantay, "Edirne Yeni Sarayı Kazısı (1999-2000) Keramik Buluntuları," *V. Ortaçağ ve Türk Dönemi Kazı ve Araştırmaları Sempozyumu (19-20 Nisan 2001, Ankara)*, (Ankara: 2001), 145-160; H. Ö. Barışta, "Ankara Lüne Bey Hamamı Kazısında Bulunan Lüleler Üzerine," *Uluslararası Sanat Tarihi Sempozyumu (10-13 Ekim 2001, İzmir)*, *G.Öney'e Armağan*, (İzmir: 2002), 71-82.

change in the function of the bath, as is mentioned by other authors,<sup>8</sup> may support the argument that the British carried out some experimentations at the site.

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<sup>8</sup> Ahmet Hamdi, 34.

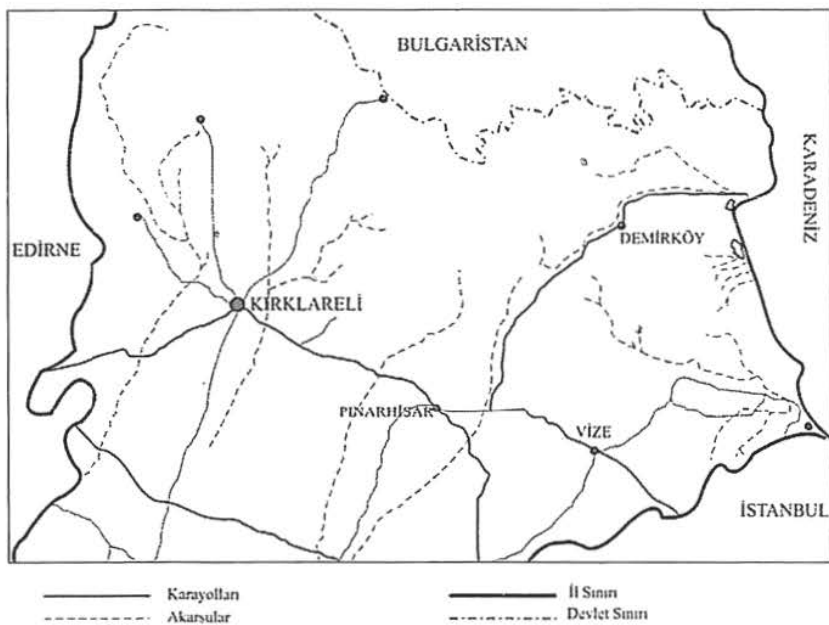


fig.1. Map of Kırklareli and Demirköy

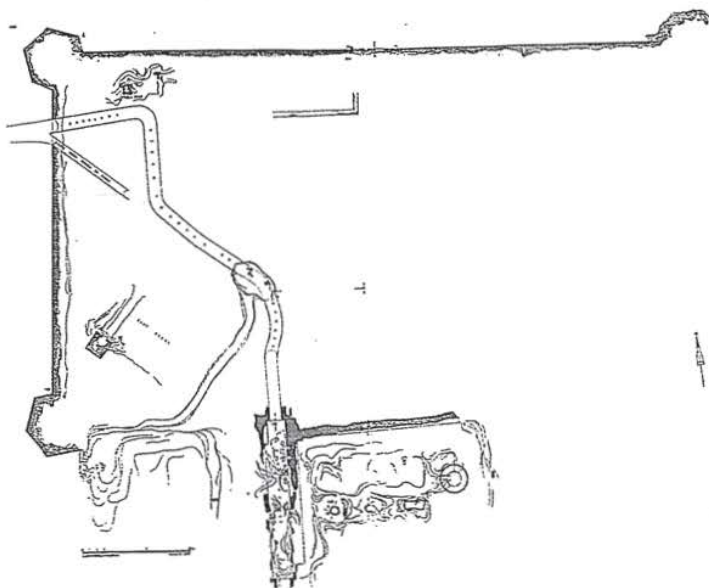


fig.2. General plan of Fatih Foundry in Demirköy

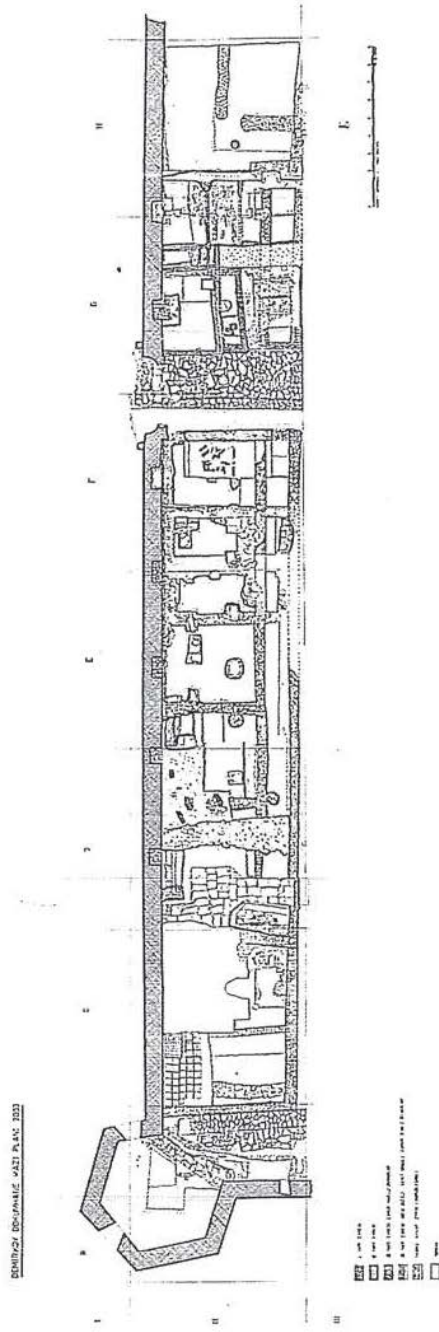
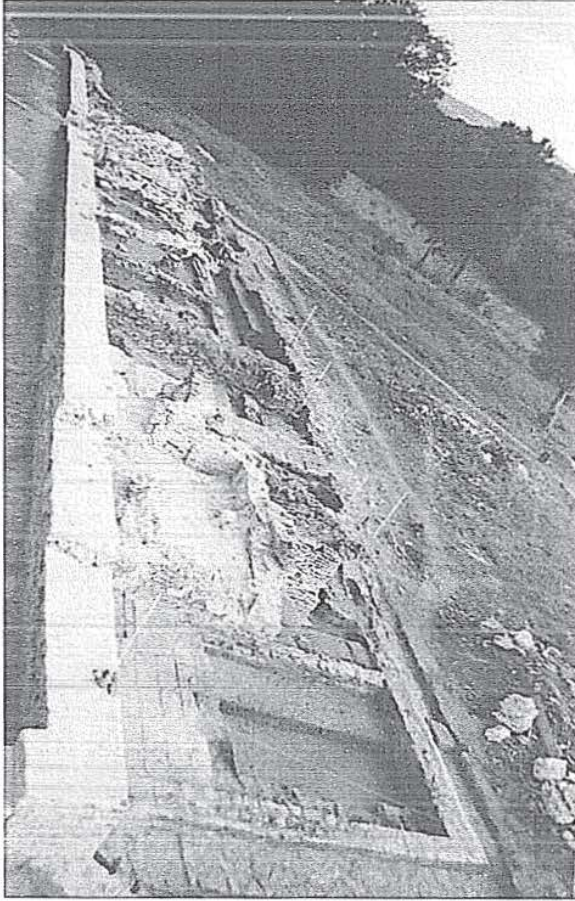
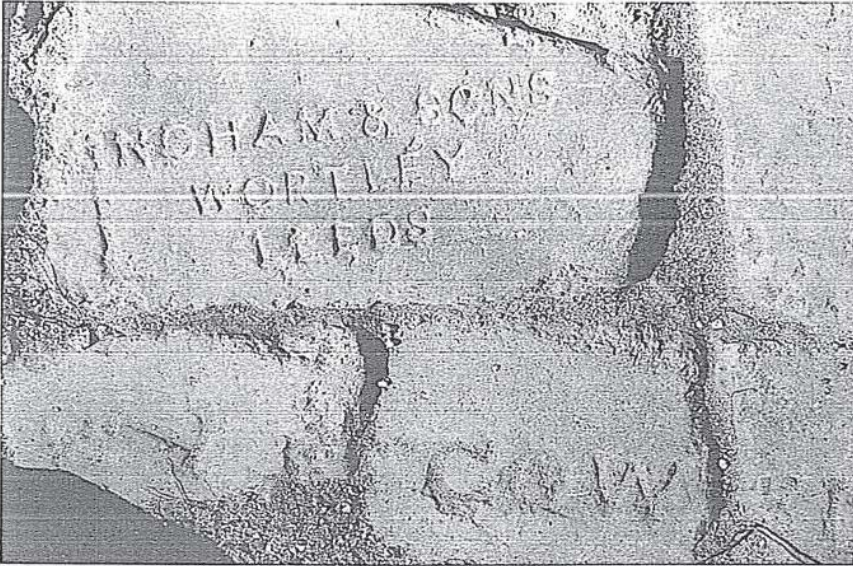


fig.3. Excavation plan (2003)



*fig.4.* Excavation at the foundry



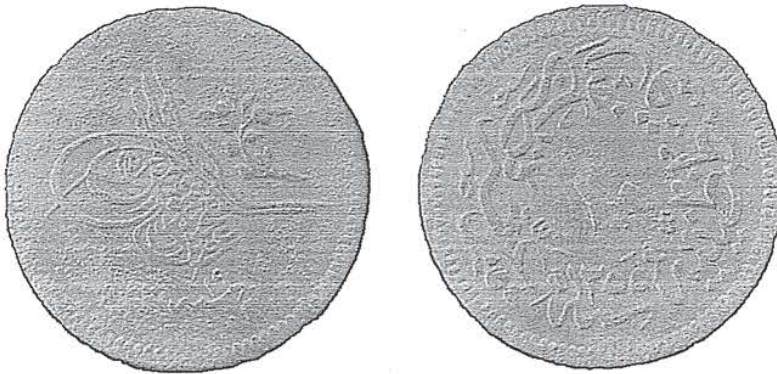
*fig.5.* Imported British oven-bricks



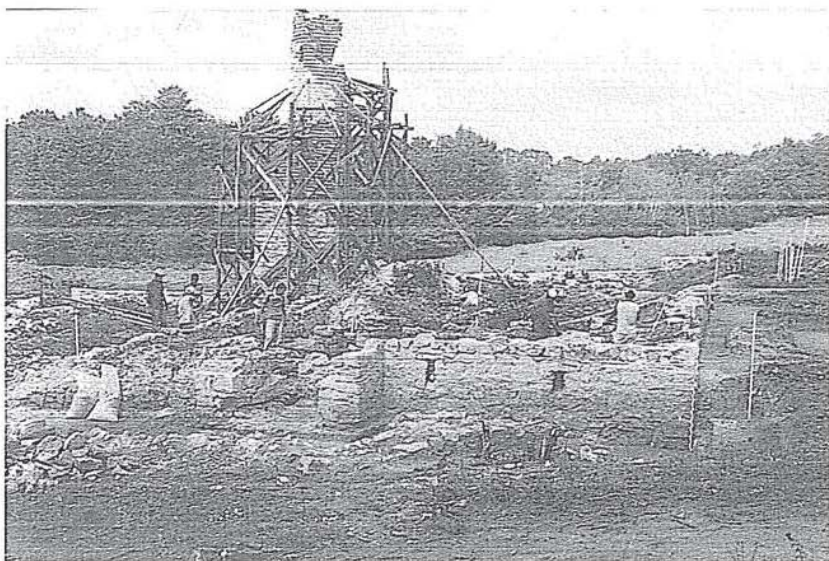
*fig.6.* Turkish oven-brick



*fig.7.* A copper coin of Sultan Abdülaziz



*fig.7.* A copper coin of Sultan Abdülmecid



*fig.9.* Ruin of the masjid in the foundry



*fig.10.* Fragments of the fresco in the masjid

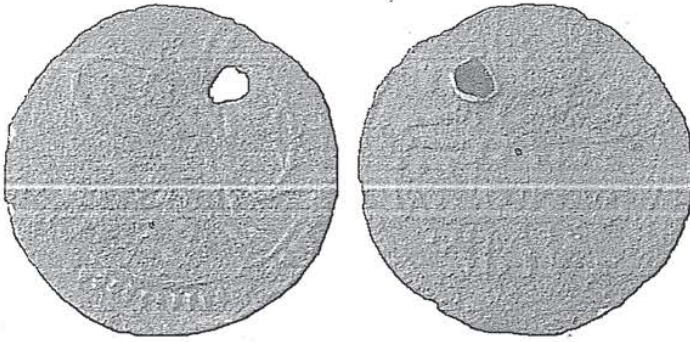


fig.11. Silver coin of Sultan Mustafa III



fig.12. Coin of the Austrian Empire

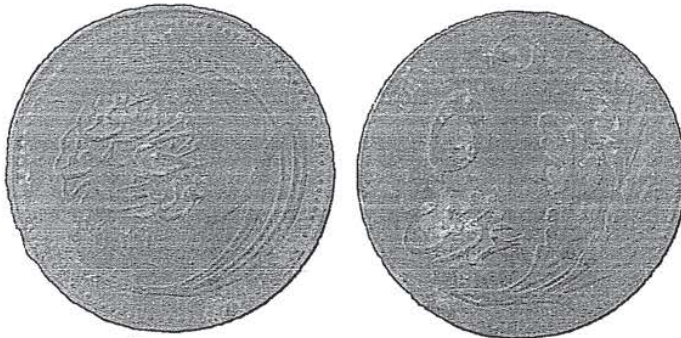


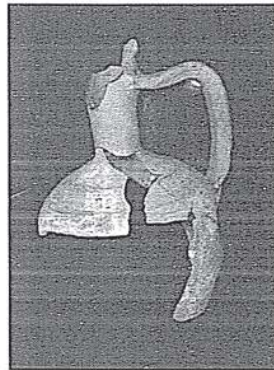
fig.13. Coin of the Turkish Republic



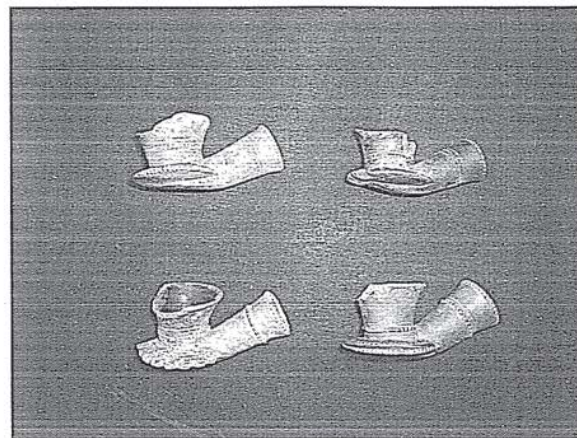
*fig.14.* A glazed lid from Çanakkale or Eyüp



*fig.15.* British porcelain plate



*fig.16.* A jug (19<sup>th</sup> century)



*fig.18.* A group of tobacco pipes (lüle)

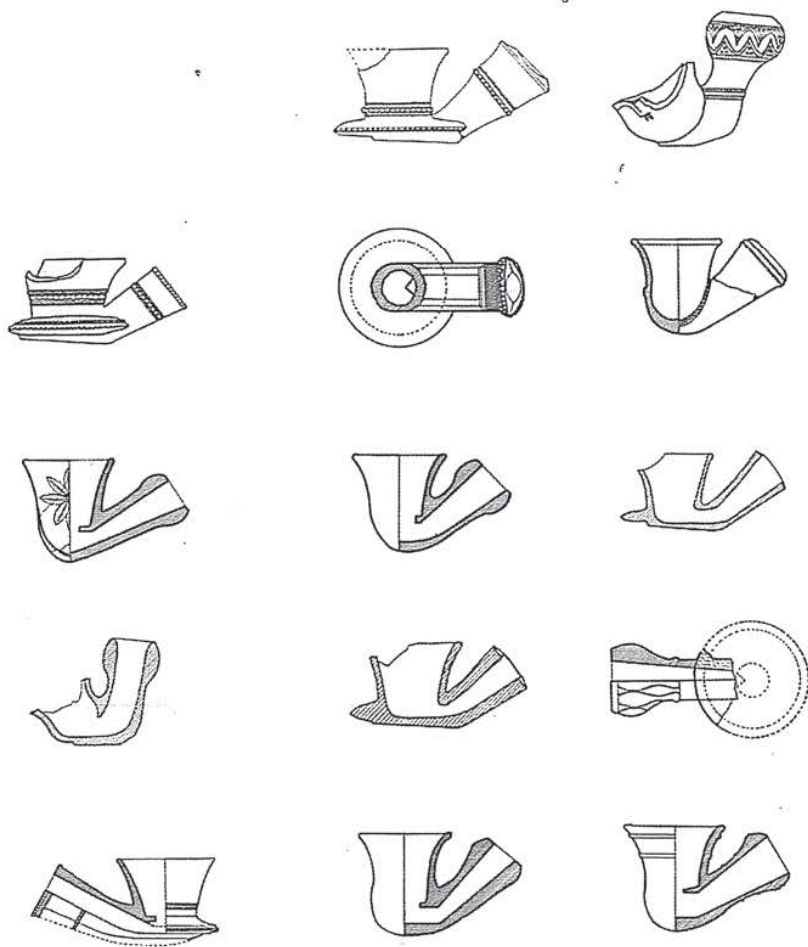


fig.17. Tobacco pipes (lüle)