



Investigating the Early Bronze Age II settlement at Hacılar Büyük Höyük (Burdur, Türkiye)

Gülsün Umurtak ^a

^a Faculty of Letters, Department of Protohistory and the Near Eastern Archaeology, Istanbul University, Istanbul, Türkiye; gulsunumurtak@gmail.com

ABSTRACT

After the EBA I period came to an end at Hacılar Büyük Höyük around 2800 BC, the EBA II period can be easily followed in the excavations carried out at Kuruçay and Bademağacı Höyük, and in the neighbouring regions to the south, west, north and east of the Burdur – Antalya Region. Architectural remains from this period at Hacılar Büyük Höyük were uncovered in Trenches AB and C. Although the structures were badly damaged due to their proximity to the surface, the pottery and other finds that were obtained provide very interesting insights. The pottery uncovered so far includes a very diverse repertoire of forms that can be divided into five ware groups. In the same period, numerous fired clay finds such as schematic figurines that are slightly different from each other, stamp seals, schematic figurine-seals, numerical tablets and labels have been uncovered. In addition to these, metal finds such as an iron dagger with a wooden handle and traces of cotton weaving on it, and a gold earplug provide valuable information and insights into the unique cultural, social and economic dimensions of the settlement. All these finds show that Hacılar Büyük Höyük was a dominant centre in the EBA II period, as it was during EBA I.

KEYWORDS

Early Bronze Age II, megaron, kiln, stamp seal, schematic figurine, numerical tablet, iron dagger, cotton

Introduction

From the first year of excavations at Hacılar Büyük Höyük ¹ (fig. 1), settlements belonging to the Early Bronze Age I and II periods have been uncovered in the western section of the mound in the Western Slope Trench, which spans from south to north and is currently 350 metres in length; in

¹ Prof. Dr. Refik Duru, the Honorary President of Hacılar Büyük Höyük Project, who made significant contributions to Turkish Archaeology with the excavations he undertook in many regions of Anatolia over a period of approximately 60 years, the articles and books he wrote and the courses he taught and the students he trained at Istanbul University, passed away on 26th February 2024. We remember him with respect and gratitude.

The first comprehensive scientific research in the plateau area between Antalya and Burdur began in 1957 at Hacılar, located about 27 km to the west of Burdur (fig. 1), and was instigated by British archaeologist James Mellaart. A few decades later, a new project was implemented in the same region on behalf of Istanbul University and this began in 1976 under the direction of the late Refik Duru. Within the scope of this project, excavations at Kuruçay Höyük (1978–1988), Höyücek (1989–1992) and Bademağacı Höyük (1993–2010) and investigative excavations at the Hacılar Necropolis (1985–1986) were carried out. Excavations at Hacılar Büyük Höyük, located 27 km southwest of Burdur near the village of Hacılar from which it takes its name (fig. 1), started in 2011 under my direction on behalf of the Ministry of Culture and Tourism of Türkiye and Istanbul University, and this work is ongoing.

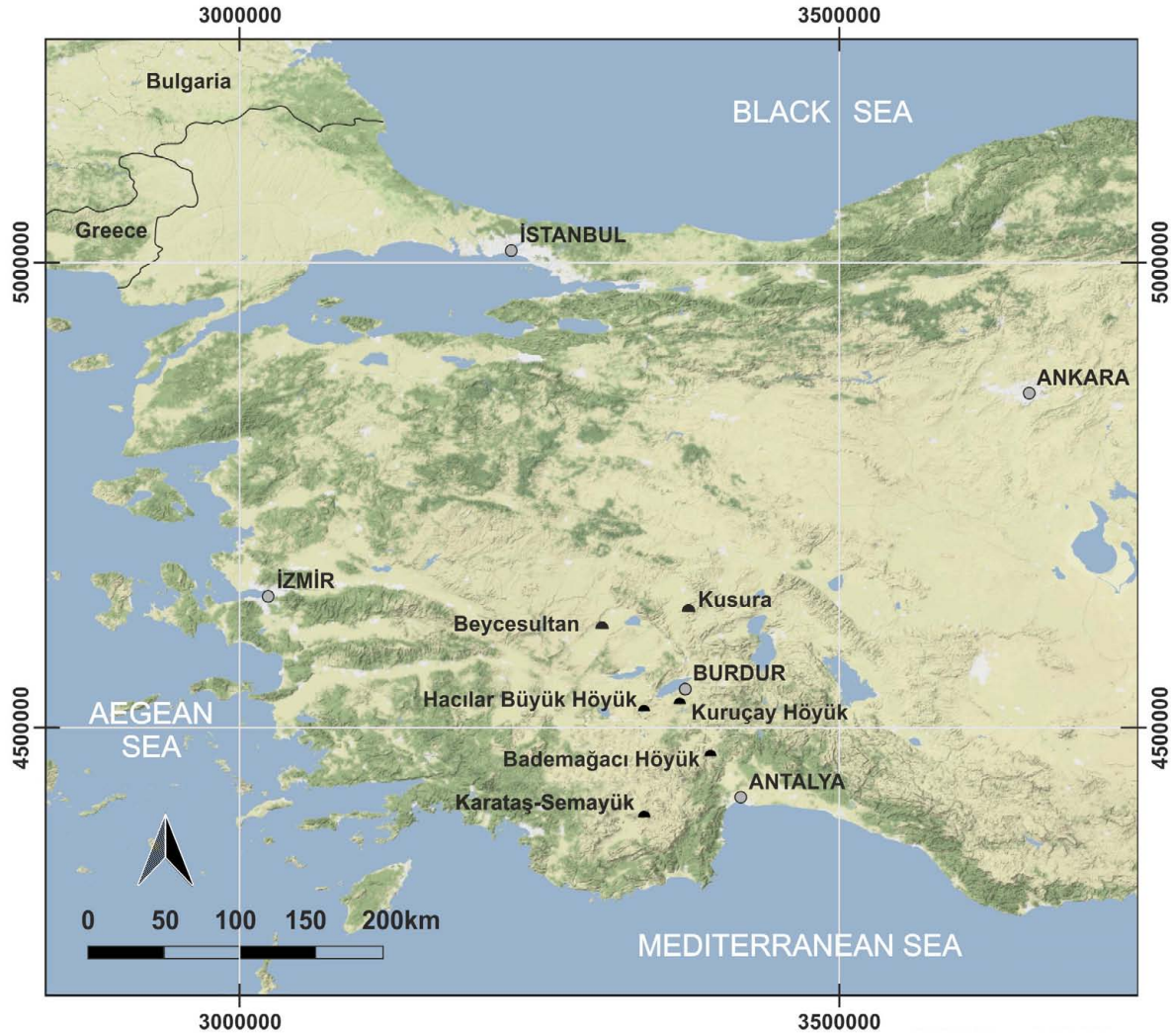


Fig. 1. Map with the location of sites in the Burdur Region and its surroundings

the Northern Trench, and in Trench AB and Trench C that were opened in a section near the centre of the mound (figs 2–3).

At the end of the 2024 excavation season, there was no fundamental change in the stratification of Hacilar Büyük Höyük that had been determined in previous years and this is given below:

The Stratigraphy of Hacilar Büyük Höyük

Early Bronze Age III (EBA III)	?
Early Bronze Age II (EBA II)	EBA II / 1–3 Building Levels
Early Bronze Age I (EBA I)	EBA I / 1–2 Building Levels
Early Chalcolithic Period (?)	?
Virgin Soil	

The defence system and buildings such as the official storage structures and workshops belonging to the EBA I settlement, which is the most extensively excavated at the mound and the one that has yielded the most comprehensive information, have been uncovered in every excavation



Fig. 2. Aerial view of the Höyük (Hacılar Büyük Höyük Excavations – archive)

period since 2011 and these have been published in detail (Umurtak, Duru 2012; 2013; 2014; 2016; Umurtak 2020; 2021; 2022; 2023). In this article, we examine and analyse an EBA II settlement at Hacılar Büyük Höyük, along with its finds.

The EBA II Settlements

The EBA phase that followed the EBA I, which ended around 2800 BC, was EBA II², and this phase can be clearly seen in the excavations carried out at Kuruçay, Hacılar Büyük Höyük and Bademağacı Höyük, and also in the adjacent areas to the south, west, north and east of our region. Settlements belonging to different intermediate phases of this period were identified during the excavations of Karataş Semayük, Beycesultan, Kusura and the Göndürle Höyük cemetery. Pottery belonging to this EBA phase has been found at many sites in the Burdur – Antalya Region and is also known from surveys and stray finds.

The weak foundations of at least three building phases belonging to the EBA II settlements, which were uncovered in Trench AB in the north-central section of the mound, provide very little information about the settlement plan. The excavations in Trench C yielded better results in terms of architectural remains. Although the buildings were badly damaged due to being close to the surface,

² The results of the C14 analysis carried out at the Turkish Scientific and Technical Research Institution (TÜBİTAK) Laboratories on the charred wood samples taken from level EBA II/3 are given below:

TÜBİTAK – 3750: 2863–2804 BC (%25,1), 2759–2718 BC (%11,8), 2705–2574 BC (%58,5)

TÜBİTAK – 3294: 2875–2793 BC (%31,1), 2787–2628 BC (%64,4)

HACILAR BÜYÜK HÖYÜK 2011-2024

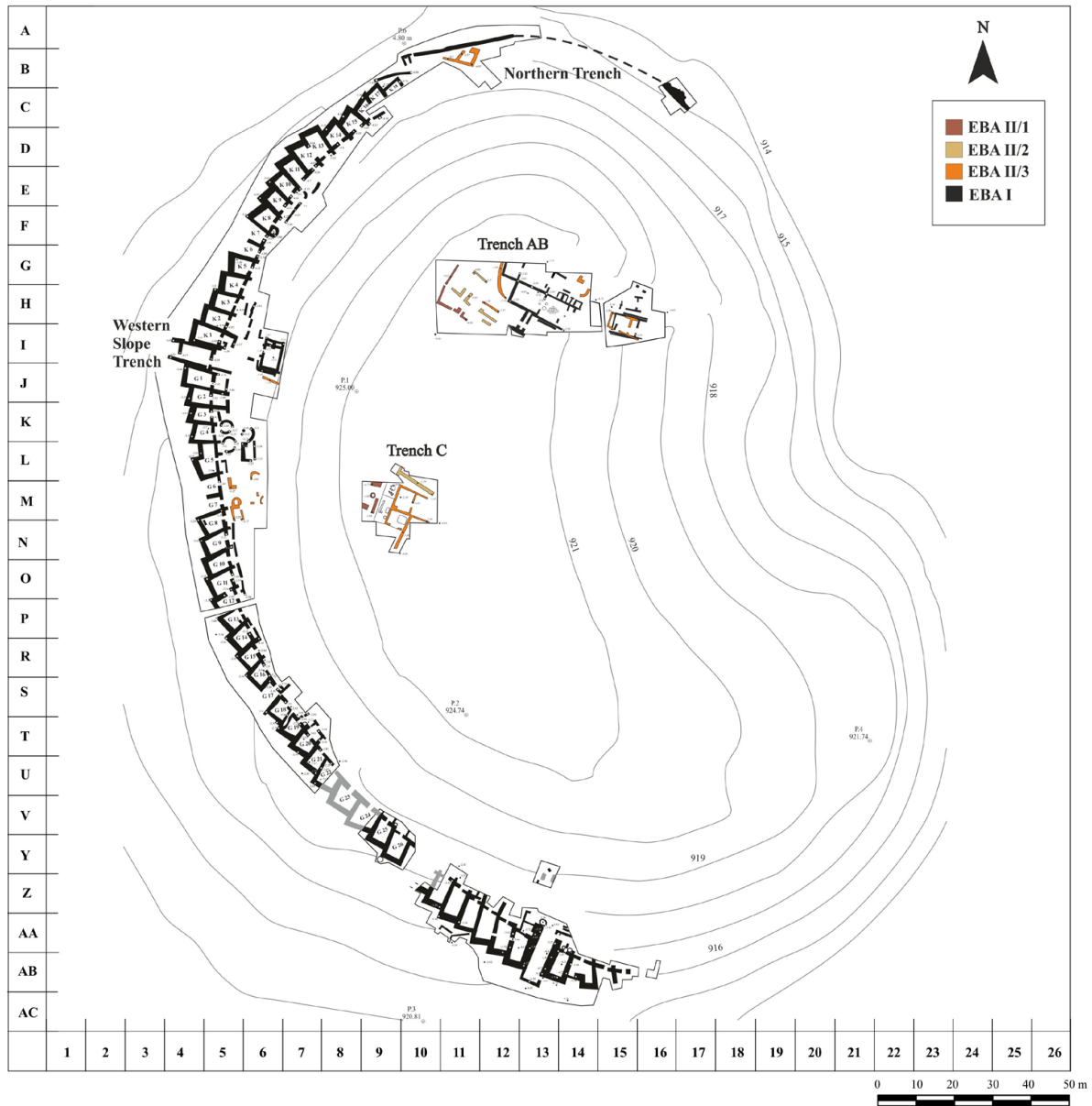


Fig. 3. Plan of the site (HBH Excavations – archive)

the pottery and other finds that were linked to them provide extremely interesting information and it is understood that the settlement at this site was very strong during the EBA II period.

The Architecture

Trench AB

Level EBA II/3

In the EBA II/3 building level some walls were uncovered along the east-west axis with no identifiable plan, one was curved and the other turned northward. In the eastern section of this trench, which had been opened during the excavations with the aim of following the eastward development of the large-roomed building linked to the EBA I phase, a thick and compact burnt deposit (indicating destruction by fire) belonging to the EBA II level was exposed. In this context a partially preserved floor, scattered grain remains, an iron dagger, a stamp seal and EBA II type grey-coloured pottery



Fig. 4. Aerial view of Trench AB (HBH Excavations – archive)

pieces with encrusted decoration (figs 3–5) were found at a depth of -1.70 m. However, no remains of any foundations or walls belonging to the burnt building were found. Excavations at the eastern end of Trench AB revealed a megaron approximately 10 m in length with a door facing east and partially destroyed walls, that had been built on top of a megaron belonging to EBA I. The floor of the megaron was badly damaged and no intact vessels or other finds were found inside it, apart from some broken pottery pieces (figs 3–5).

Level EBA II/2

Some badly damaged house foundations were found in the middle sections of the trench at a depth of around -0.80 m, in the deposit labelled EBA II/2 (figs 3–5).

Level EBA II/1

In Trench AB, house foundations in a very deteriorated condition were uncovered in the 50–60 cm deposit nearest to the surface. These remains are thought to consist of rectangular and one-roomed buildings and belong to the EBA II/1 level, which is the last (most recent) settlement at Hacilar Büyük Höyük. The buildings of this level have stone foundations and measure 35–40 cm in width (figs 3–5).

Trench C

The other area of the excavations where the EBA II settlements were identified and followed is Trench C:

Level EBA II/3

A megaron belonging to level EBA II/3 that measures 10 m in length, 3.10 m in width and has ante walls 2.50 m in length was uncovered in the middle section of Trench C. The walls of the building are 60 cm in width and were built with two rows of medium-sized stones. The upper section was apparently made of mud brick from which only debris remains (figs 3, 6–7). The door of

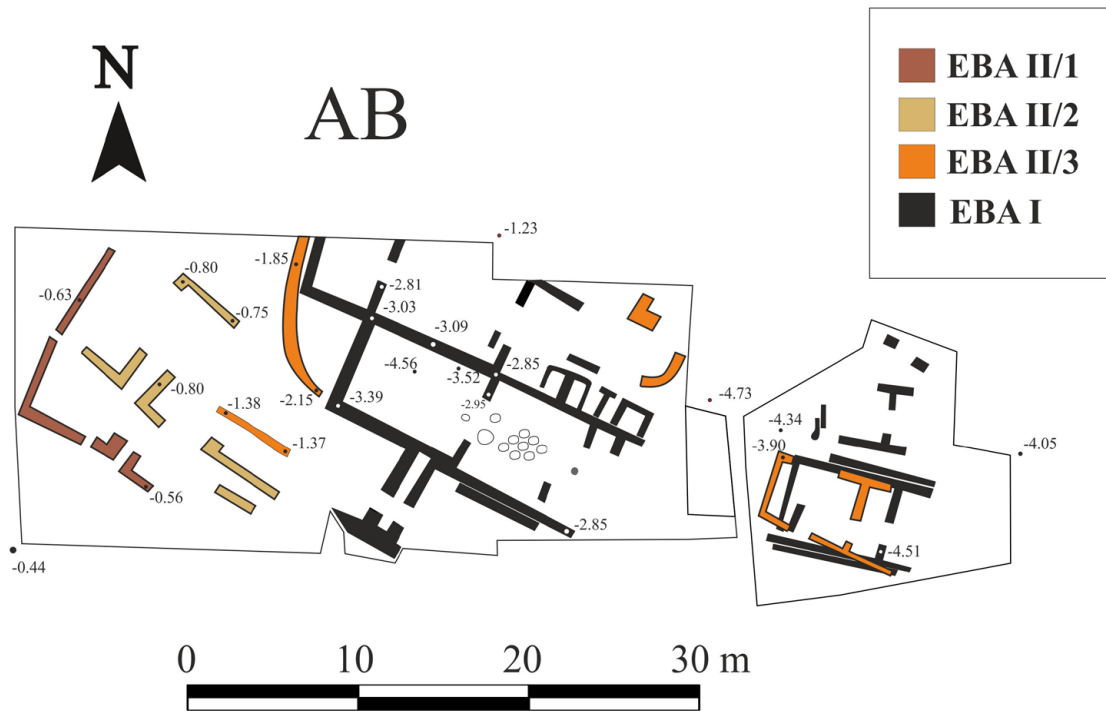


Fig. 5. Plan of the EBA building remains in Trench AB (HBH Excavations – archive)



Fig. 6. Aerial view of Trench C (HBH Excavations – archive)

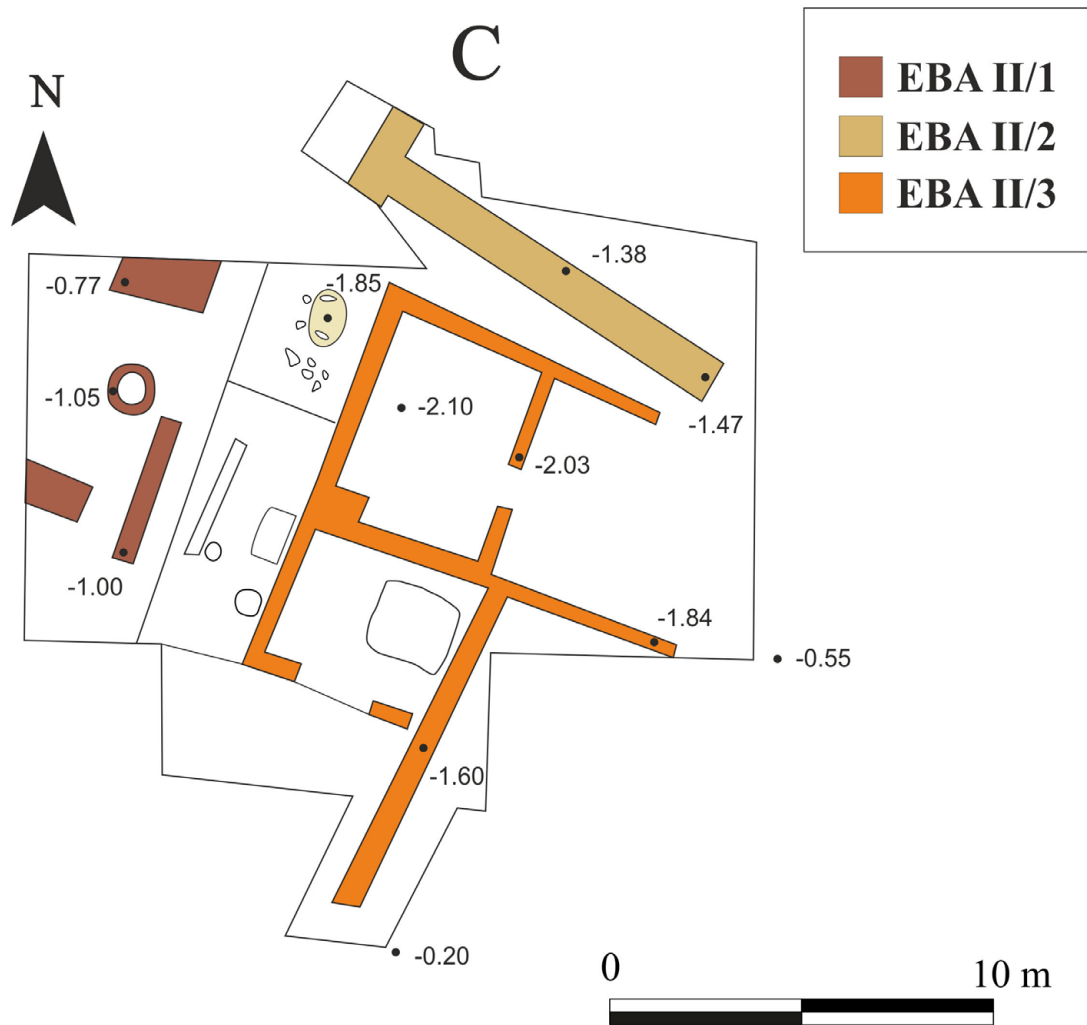


Fig. 7. Plan of the EBA II building remains in Trench C (HBH Excavations – archive)

the megaron faces east. Its floor was made of compressed earth and had been renovated many times. Some schematic figurines made of clay but not yet fired were found on the floor close to the door of the megaron, and six vessels were found next to the western wall (see below). Next to the megaron on the southern side, another room with an eastern wall that had been repaired several times and a door that opened to the south was uncovered. As excavations proceed in this area, it is likely that a group of adjacent buildings will emerge rather than a free-standing megaron.

The Kiln

A kiln (oven) was uncovered in the northwestern section, outside the western rear wall of the megaron (figs 6, 8a–c). The dimensions of the kiln, which is almost circular in plan, are 1.30 x 1.50 m. Its mouth faces westward and two roughly smoothed stones, one 32 cm in height and the other 16 cm in height, were positioned vertically in front of it and on both sides. The top of the oven had collapsed, but a 45 cm high section of the structure had survived to the present day, and this was made of a clay mortar that appears to have been in the shape of a tortoise shell with a hole at the top to release the smoke. Inside the kiln, there are two parallel channels, the northern one is 60 cm in length and the southern one is 40 cm in length, and the floor is as hard as concrete. This feature is the simplest single-chambered oven model used for firing pottery or clay objects (Delcroix, Huot 1972, 35–95, fig. 9; Ezer 2013, 2; Thér et al. 2018, 18, fig. 7). It can be understood from this plan that the

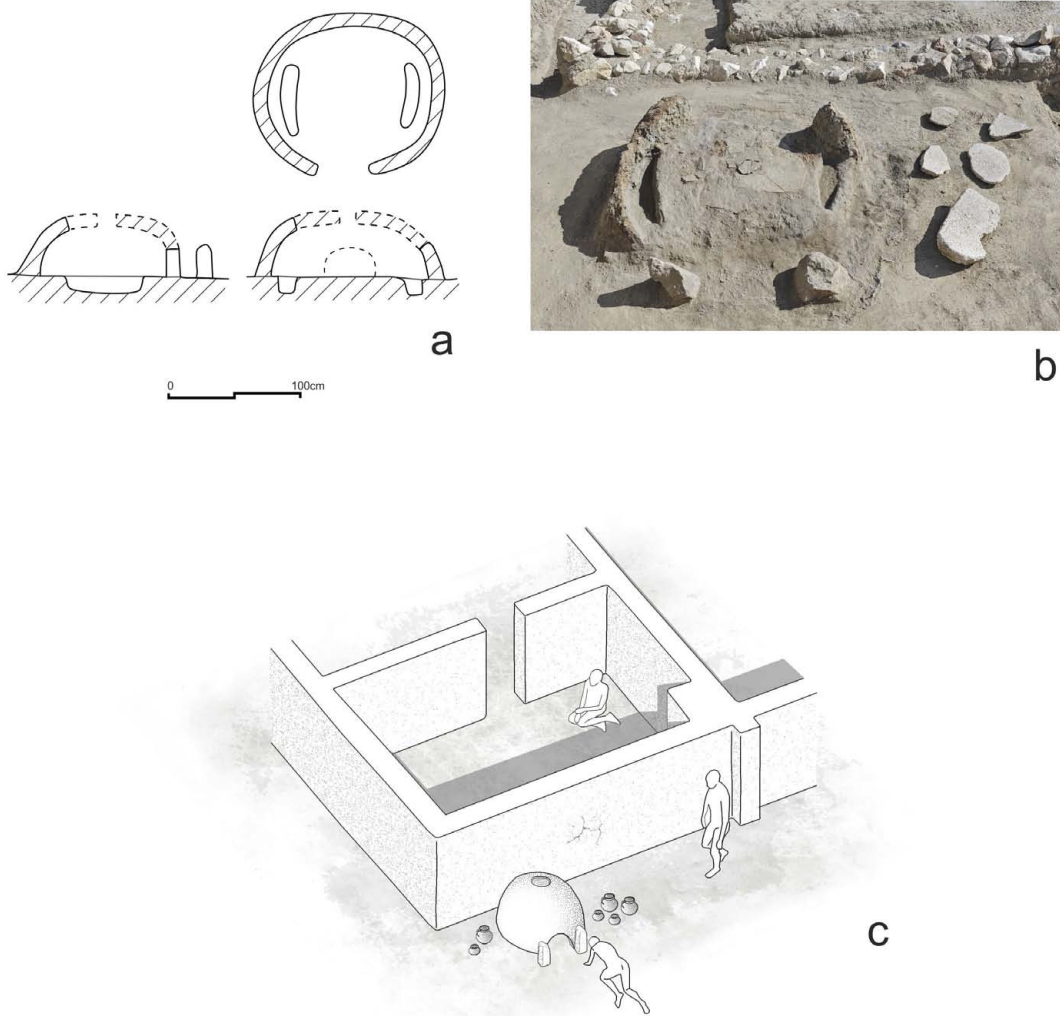


Fig. 8. a. Plan and section of the kiln (drawing by B. Gülkan); b. A view of the collapsed kiln from the West (HBH Excavations – archive); c. An isometric drawing of the kiln in the courtyard adjacent to the megaron (drawing by M. A. Ugan)

combustion and the baking chamber were made as a single entity.

A non-fired miniature goblet made of light beige coloured paste was found in front of the oven mouth. The body sections of four schematic figurines of the same ware type, made of a well-refined light beige paste and between 2.6 and 3 cm in length, were found on the floor in the southeastern corner of the megaron. Inside the megaron, six jugs and juglets belonging to the Ware 1, Ware 2 and Ware 3 groups were uncovered on the floor near the northern wall. On the basis of the finds, it can be assumed that this was not a kitchen oven, but a kiln used for the production of certain items. The small finds could easily have been fired in this kiln, but it would not have been possible to place small and medium-sized vessels into the chamber inside through the door opening at the bottom of the oven or remove them from it. Some possible solutions to this problem have been suggested (Ghorbani 2023, 74). Is it possible that goods ready for firing were placed in the oven through an opening at the top, and that the upper section was broken after the firing process had been completed so the items that had been fired could be removed? Perhaps the solid lower edges that have survived to the present day were the parts that were made during the construction of the furnace and frequently reinforced. To the south of the kiln, lumps of red and yellow paint were found inside the pottery sherds and large

Investigating the Early Bronze Age II settlement at Hacılar Büyük Höyük (Burdur, Türkiye)

grinding stones were uncovered *in situ*. The non-fired schematic figurines, oven-fired jugs and juglets found inside the megaron, and the paint residue found close to the kiln, are evidence of its use for production of goods.

It is not surprising that the earliest examples of this simple oven form can be traced back to the Samarra culture in Mesopotamia. Examples of single-chambered simple ovens/kilns can be seen over a long chronological period and throughout an extensive geographical area, from the typical examples uncovered at Tell es-Sawwan in level IIIB (Streily 2000, 72, fig. 2) to the EBA Agios Mamas and Polychrono kilns of Northern Greece in the West (Hasaki 2002, 195, Pl. IV.2). Of course, this similarity should be understood to relate to lifestyle and production practices, rather than in terms of how the kilns were built and used as a result of precedence, succession or interaction between contemporaries. In the neighbouring regions, it is known that the pottery kilns from a workshop excavated in the EBA level VB at Seyitömer Höyük (located near Kütahya) were circular or oval in plan. As can be seen from the illustrations, these are single-chambered type kilns (Bilgen et al. 2012, 205, figs 9–10).

Level EBA II/2:

In this level the wall, which is 90 cm in width and 10 m in length, extends northeast–southwest and then turns northward at a 90° angle. This remarkably strong wall must have belonged to an extraordinary structure (figs 3, 6–7).

Level EBA II/1:

The remains of short stone foundations 35–60 cm in width and a circular stone foundation with a 1 m diameter were uncovered in this level (figs 3, 6–7).

The Pottery

Since the excavations began in 2011, dozens of complete vessels and hundreds of broken pottery sherds have been found in the EBA II settlements at Hacılar Büyük Höyük. I have divided this material into five Ware Groups, and pottery examples belonging to these different ware groups are described below³.

Ware 1: A bowl from the EBA II/3 phase is light grey in colour (Munsell 2.5 YR N4 dark gray) with a plant and mineral tempered paste, slipped inside and outside and well-fired. It is a semi-spherical bowl with an everted mouth and has a horizontal twisted handle that rises above the rim on one side and a nodule-shaped protrusion on both sides (fig. 9). This Ware 1 bowl is similar to the EBA II “Group J” Black Wares at Kuruçay (Duru 1996, 67–68, Pl. 129–133). This bowl has no exact parallel in form among the wares at Kuruçay, but it shares some common features with the two-handled bowls from Level 2 (*ibid.*, Pl.124.7) and Level 1 (*ibid.*, Pl. 129.8–10). A similar bowl with a double handle is seen among the Mixed Deposits finds at Karataş-Semayük (Eslick 2009, Pl. 58, KT507, KT185) and there is a similar example from Level XVI at Beycesultan, although this has a different profile and a larger handle (Lloyd, Mellaart 1962, fig. Pl. 23.4).

An unusual bowl with a pedestal that was found in level EBA II/1 in Trench C belongs to the Ware 1 group. The paste of this bowl is plant and mineral tempered, and it is well burnished, well-fired and grey in colour (Munsell 5 YR 4/1 dark gray). On the outside of its mouth, it has two solid

3 For a detailed description of the pottery that constitutes the Hacılar Büyük Höyük EBA I and EBA II ware groups, see Umurtak, Duru 2016, 30–34.



Fig. 9. A bowl with a horizontal twisted handle from the Ware 1 group (HBH Excavations – archive)



Fig. 10. A special bowl from the Ware 1 group (HBH Excavations – archive)



Fig. 11. A jar from the Ware 2 group (HBH Excavations – archive)

spool-shaped handles and two vertical reliefs, one on each side. A narrow ledge encircles the bowl below the rim. The pedestal section of the vessel narrows towards the base. We think it is unlikely that this vessel was used in daily life, as it was probably used for a special purpose, such as for an offering (fig. 10).

Ware 2: A jar (fig. 11) found in a thick layer of burnt debris belonging to Level EBA II/3 in Trench AB is greyish orange-greyish brown in colour (Munsell 5 YR 5/3, 5/4 reddish brown). It has a well refined, compact paste, and is self-slipped, lightly burnished and successfully fired. The vessel is spherical in shape and everted at the mouth with a plain rim, and it has a neck, a pair of strip handles (one on each side) that join the neck to the lower body section and a flattened base. There are dots and rows of zigzags between horizontal parallel bands on the neck of the vessel, and the body is decorated with a composition consisting of seven rows of parallel lines that zigzag and intersect with each other. The handles are decorated with zigzag lines that run from top to bottom, two rows on one handle and three rows on the other. It can be seen from the remains of a white substance that these were originally encrusted decorations that had been erased over time. The closest examples to this vessel are seen among the Kuruçay “Group K” wares (Duru 1996, Pl. 128, 181.4). Refik Duru states that these wares were found in very limited numbers at Kuruçay and they are among the early EBA pottery (ibid., 69). Similar examples to this pottery in terms of form and decoration were found in the Bademağacı EBA settlement (Duru 2008b, figs 333, 335 – 3rd one in the 2nd row). Vessels with an everted mouth, a straight cylindrical neck and a spherical body found in EBA Level XV at Beycesultan provide evidence that the use of these jars began during this period (Lloyd, Mellaart 1962, Pl. 25.24, P. 33). Incised decoration on dark-slipped vessels and the use of white filled/encrusted decoration are seen in the same period. Examples of this pottery form are known from Demircihöyük in EBA phases E (Seeher 1987, Taf. 36.1–4), H and I (Efe 1988, Taf. 11.4–7, 10). The diagonal cross band decoration on these jars is not seen at Hacilar Büyük Höyük.

Ware 3: A miniature jug found in level EBA II/1 in Trench C belongs to the Ware 3 group. It is made of beige paste (Munsell 7.5 YR 7/4 pink, 10 YR 7/3 very pale brown), is not slipped or burnished and has reddish stains in places due to poor firing. It has a sharply pointed beak spout, a squat



Fig. 12. A miniature jug from the Ware 3 group (HBH Excavations – archive)

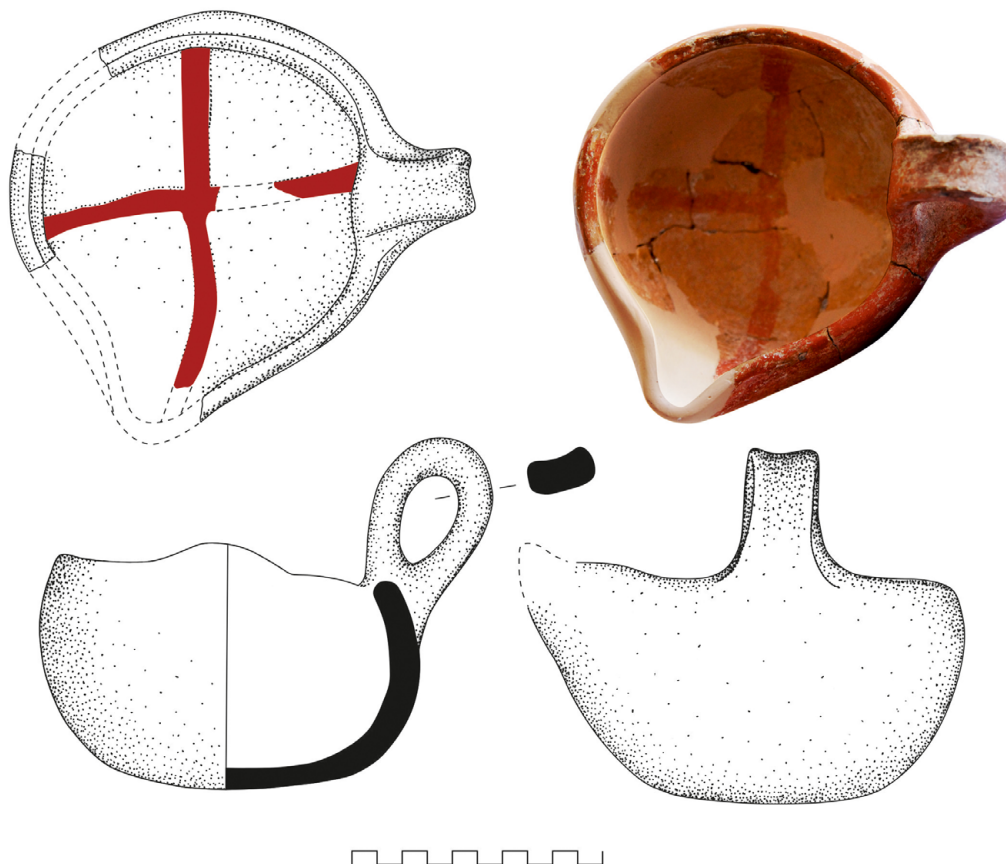


Fig. 13. A Red Cross Bowl from the Ware 4 group (HBH Excavations – archive)



Fig. 14. A miniature jug from the Ware 4 group (HBH Excavations – archive)

body and a handle extending from the mouth to the lower body section, supported in the middle. The horizontal-parallel linear groove decorations on the neck are also seen on the handle. The body section is decorated using the same technique and has parallel lines above and below a zigzag motif (fig. 12). The closest similarity to this miniature jug is the small, paint-decorated jug found in a disposal pit belonging to the Kuruçay EBA settlements (Duru 1996, Pl.121.1, 141.12, 181.6). In terms of both form and decoration, this jug is unique among the Kuruçay EBA pottery.

Ware 4: A “Red Cross Bowl” from the EBA II deposit belonging to the Ware 4 group has a beige-coloured paste (Munsell 5 YR 7/3 pink) and is well-fired. Its outer surface is slipped in red (Munsell 2.5 YR 5/6, 4/8) and lightly burnished, while the inside is left in the colour of the paste and also lightly burnished. There is an intersecting red painted band decoration on the inside that forms a red cross. The bowl is slightly inverted at the mouth and has a spout, a spherical body and a single loop handle on one side (fig. 13). Examples similar in form to this vessel have been identified in EBA II at Kuruçay, “Type 10” among the Red and Black Wares “Group J” (Duru 1996, 67–68, Pl. 131.8–11, 135.7–9, 140.4–5) and among the Karataş-Semayük Period III material (Eslick 2009, Pl. 30 KT 305). No contemporary parallel to this bowl was found among the Bademağacı EBA pottery, and there is no similarity or relationship between this bowl type and the “Red Cross Bowl” (Umurtak 2003, figs 1.6, 8.1) found among Middle Bronze Age pottery at this site, other than the decoration on the inside of both bowls being in the shape of a “red cross”. There are many examples of bowls with spherical, single-loop handles among the pottery of Beycesultan EBA II level XVI, but these vessels are without paint decoration (Lloyd, Mellaart 1962, fig. Pl. 24.8, 10–11, 14). It is understood that paint decoration was not liked or was not popular at Beycesultan in this period, as it was at Bademağacı and Hacılar Büyük Höyük. However, on the inside of a pithos belonging to level XV that was red slipped on the outside, there are intersecting red bands on the light brown buff paste (ibid., fig. Pl.35.2). W. Lamb states that fragments of red-cross bowls were found in the Kusura B phase, and that these were always made of buff coloured clay and turned on a slow wheel. These are usually red on the outside and decorated with red paint on the inside. A spherical bowl had a cross motif formed with red paint on both the inside of it and on the base (Lamb 1937, 17, fig. 6.1a–c). Within the EBA pottery traditions of Western Anatolia, we would particularly like to mention a similar example from Demircihöyük. The pottery with red cross decoration and the spherical one-handled



Fig. 15. A jug with two handles from the Ware 4 group (HBH Excavations – archive)

form appeared in the E-F3G levels (Seeher 1987, Abb. 27, Taf. 34.10, 43.23, 45.22, 52.17–18), which represent the early phases of EBA at Demircihöyük, and these pottery forms continued for a long time (Efe 1988, Taf. 1, 2.12–14, 5.2). It can be said that there is some similarity between these and the bowl from Hacilar Büyük Höyük.

A well-made wide beak spouted miniature jug belonging to the Ware 4 group, which was uncovered in the courtyard of the megaron in level EBA II/3 in Trench C, has a beige paste and is red slipped (Munsell 2.5 YR 5/8 red), burnished and successfully fired and has a horizontal wavy decoration on its body section (fig. 14). Dozens of miniature jugs, most of which belong to the Ware 1/Red Ware Group, were uncovered in the EBA II/3 and II/2 settlements at Bademağacı. These are generally similar to each other and to their contemporaries found at Hacilar Büyük Höyük.

Another vessel belonging to the Ware 4 group was found inside the Megaron linked to the EBA II/3 level in Trench C. It is a buff-coloured, red-slipped (Munsell 2.5 YR 5/8 red), burnished and well-fired two-handled jug with a neck, an everted rim and a spherical body (fig. 15), which is a very popular form in both the EBA I and EBA II settlements at Hacilar Büyük Höyük. The same form was also found in the Bademağacı EBA II settlement, and many of the examples from this site are from the EBA II/3 and II/2 levels and belong to the Ware 1/Red-slipped Ware Group (Duru 2017, figs 3–4). Refik Duru suggested there was a strong possibility that the production of two-handled jugs started during EBA I in this region and developed into its most mature form here and that this production continued in a similar way in the following period and spread to the south of the region and that their production continued at Bademağacı Höyük during EBA II (ibid., 83). A one-handled jug similar to the jugs mentioned here is found among the pottery from Beycesultan EBA I level XVII (Lloyd, Mellaart 1962, fig. Pl. 17.2).

The Hacilar Büyük Höyük EBA II pottery is similar to that of its contemporaries in Burdur and the surrounding area, primarily Kuruçay, then Bademağacı and Karataş Semayük in the south of the region, and Beycesultan pottery in the northwest. This similarity suggests that there was a common

tradition based on the ware groups and forms seen at Kuruçay and Bademağacı. There must have been many more similar examples to the Hacılar Büyük Höyük EBA II pottery than those we have highlighted here. As the available material increases, it will be necessary to re-evaluate it within the context of the pottery traditions of the Aegean World during this period.

The Small Finds

Fired Clay

The Schematic Figurines

The schematic figurines seen at Hacılar Büyük Höyük, Kuruçay and Bademağacı during this period are different in style from those of contemporary sites in Western Anatolia. They show no resemblance to the realistic, steatopic Mother Goddess depictions produced in the region since the Early Neolithic Period. These flat schematic figurines are usually made of clay and details, such as eyes and noses, are indicated with marks on their heads and faces. The figurines often have diagonally intersecting lines and dots on their chests, the arms are indicated with protrusions on the shoulders, the waist is shown by a concave narrowing of the body contour, and the lower body is flat or rounded (Duru 2008b, 170).

A figurine from the EB II/2 settlement is schematic in style and has a high (tall) head section and arms that are indicated with blunt protrusions. It is made of a beige-coloured, well-refined paste and the surface is slipped and burnished. There are short lines on each side of the head, a necklace is indicated with dots on the neck, and chevron motifs in all four sections of the body meet in the middle on the chest. A swastika marked with dots and lines can be seen on the abdomen section of the schematic figurine, and there are vertical lines crossing a horizontal line on the lower part and dots that symbolise the sexual organ (fig. 16.a).

An orangish-beige schematic figurine from EB II/2 is carefully made and successfully fired and has no slip or burnishing. It is shaped like a violin and has a flat head with a groove in the centre, and its arms are blunt protrusions. There are no marks on the back of this artefact, but on the front surface there are three rows of short parallel lines on both sides of the head, markings to show the eyes, and a hole that probably indicates the mouth. Some small dots indicate a necklace, and there are lines on the arms and chest that intersect in the centre and horizontal parallel lines on the lower part of the body (fig. 16.b).

Another schematic figurine found in the EBA II deposit is black in colour, meticulously made and successfully fired. It has a flat head and there are outward facing chevrons (one inside the other) and straight parallel lines on its face. The figurine has blunt shoulders and a violin-shaped body, and there are marks to show the belly button and three parallel horizontal lines and small dots on lower part below it. All the designs were done using the encrusted decoration technique (fig. 16.c). Parallel examples to this figurine come from the EBA levels at Kuruçay (Duru 1996, Pl. 151.1–2, 4–5).

Schematic figurines that are similar in style to the ones described above include some that came from the Harmanören-Göndürle Cemetery and the Kusura, Karataş-Semayük EBA settlements. The place of origin of these objects is unknown, and they are kept in some museums and private collections (Bilgi 2012, 610–622, 626–635; Duru 2016, 589, 591, 594–595, 598–600, 603–604).

A dark grey schematic figurine found in the EBA deposit is also meticulously made. Its head is pointed and there are five lines on each side of its front surface. The arms are in the form of blunt protrusions, and there are diagonal lines on the front of the body and small dot impressions on the lower part. The designs were made using encrusted decoration technique (fig. 16.d). The closest parallel to this schematic figurine is one from the Bademağacı EBA II settlement levels (Duru 2003, Pl. 46.1, 47.1). The close resemblance of these two objects would suggest they were made at the same

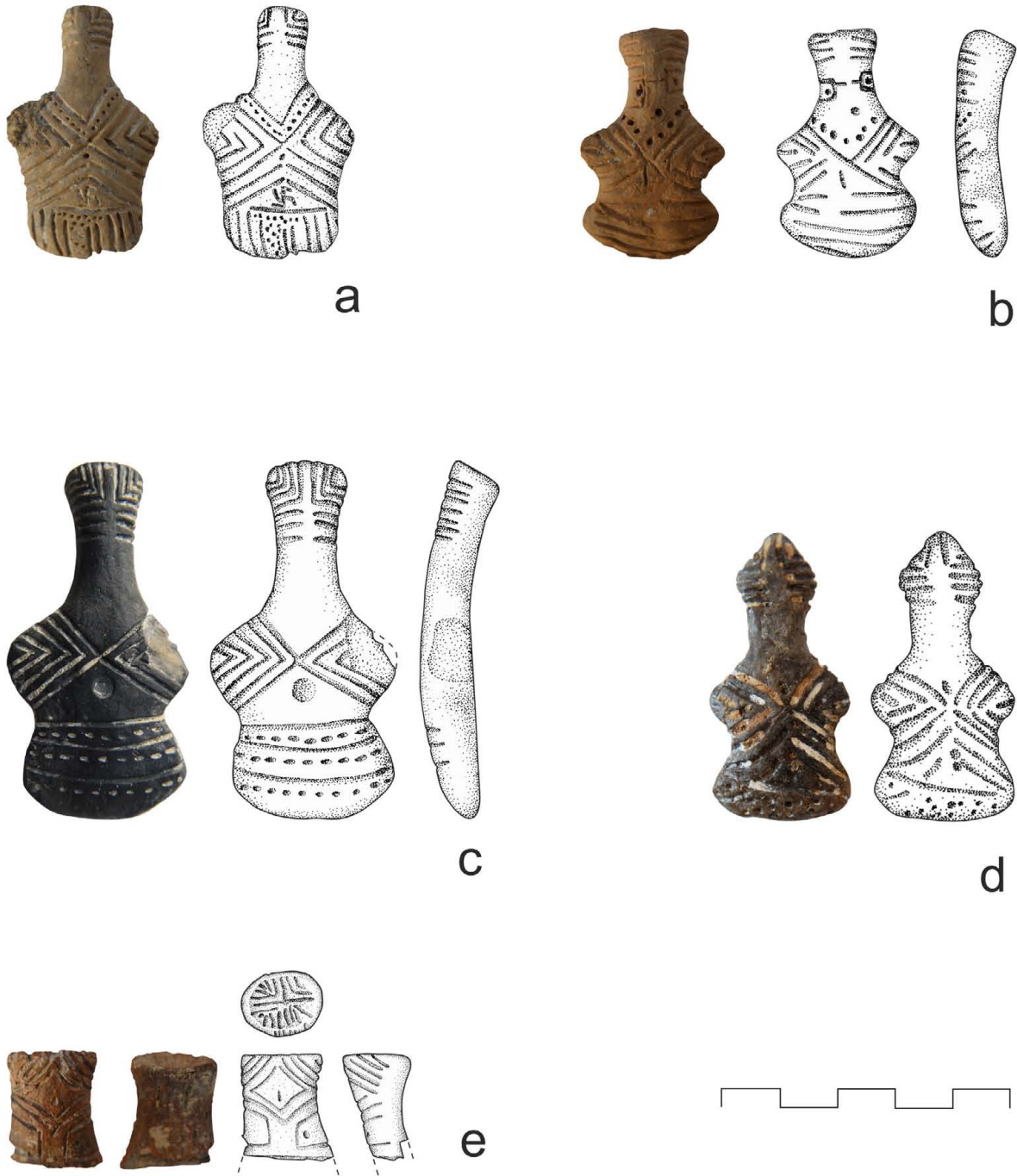


Fig. 16. a–d. Fired clay schematic figurines; e. A schematic figurine-seal (HBH Excavations – archive)

workshop. Other similar examples include a schematic figurine kept at the Ashmolean Museum that apparently came from Çaykenarı and a schematic figurine of unknown origin currently in the D. and J. De Menil Collection (Bilgi 2012, 623, 625).

The last example of this group is a schematic figurine-seal⁴. The section of the schematic figurine below the neck is missing and there is an extremely schematic representation of what could be the hair and face on the front of the head. It can be assumed that the upper part of the head, which is

⁴ We have recommended the use of “schematic figurine-seal” as the term that best describes the finds of this type from Bademağacı and Hacilar Büyük Höyük.

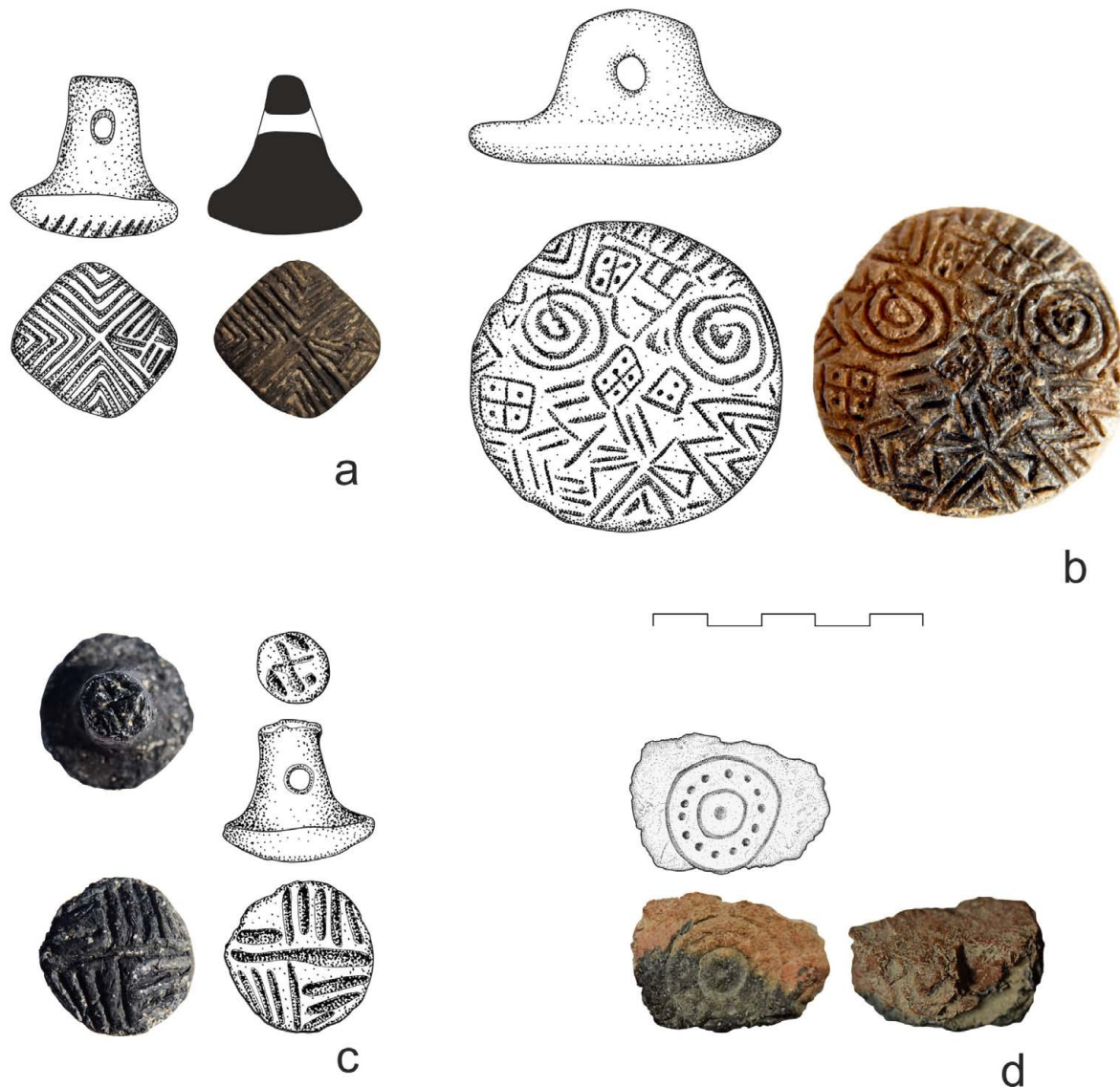


Fig. 17. a–c. Various fired clay stamp seals; d. A bulla (HBH Excavations – archive)

wide and oval in shape, was used as a stamp seal (fig. 16.e, see below). Another broken and incomplete schematic figurine-seal similar to this one was found at the same site.

The most attractive examples of the schematic figurine-seal tradition with a disc-shaped head or back were found in the Bademağacı EB II settlement (Duru 2008b, fig. 341, 2nd row – in the middle; 2016, figs 592–593). In addition to these, one of the examples of the group known as the “Çaykenarı Idols” in archaeology publications reflects a regional tradition in terms of the shape of its head and the details of the markings on its body (Peet 1909, 145–148; Bilgi 2012, no. 606). A schematic figurine purchased at Kusura that is missing the section below the chest (broken off) belongs to the same group (Lamb 1937, 28, fig. 11.1). The schematic “ornithomorphic figurine” (Gimbutas 1989, fig. 21) dating to the 5th millennium BC that was found at a Vinča settlement in Medvednjak (Serbia) has chevron motifs on its face, and a cross and chevron composition on the flattened head, which is very similar to the motif on the head of the Hacilar Büyük Höyük example. The aim here is just to emphasise the similarity, as it is clear that the example being examined has no connection with the “Bird Goddess” cult. However, it is difficult to understand how the similarity in technique can be explained in view of such a great geographical distance and chronological time difference between the two objects.

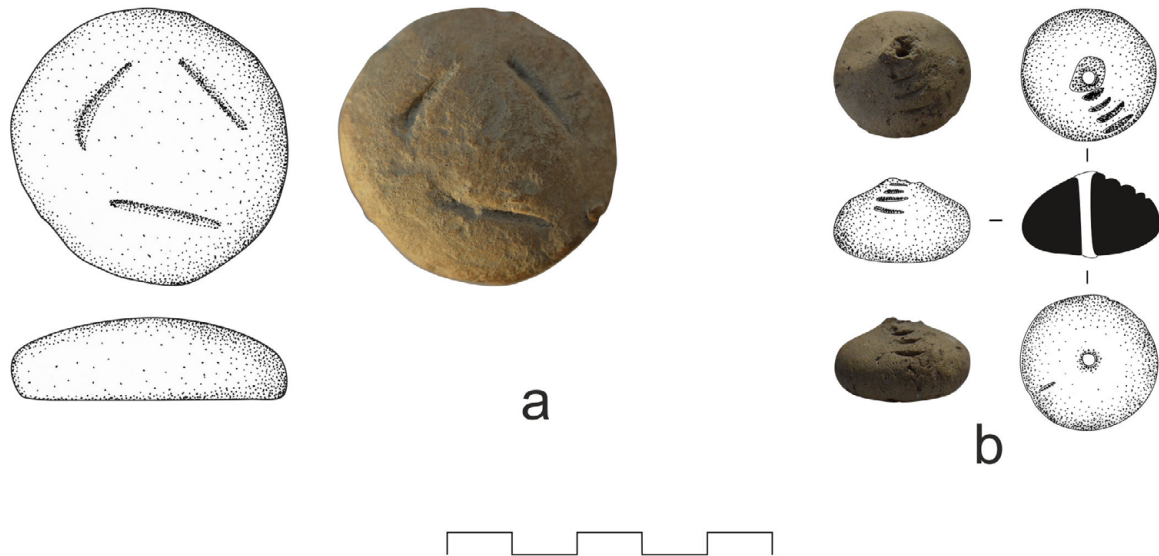


Fig. 18. a. A numerical tablet; b. A fired clay label (HBH Excavations – archive)

The Stamp Seals and a Bulla

A large number of clay and stone stamp seals were found in the EBA I and II levels at Hacilar Büyük Höyük. All the seals found in the EBA II settlements are made of baked clay and can be divided into two groups. The first group, of which there are numerous examples, consists of seals with a stamp face area that has been divided into four sections by means of a cross and a chevron design added to the resulting spaces. A dark grey seal made of compact, successfully fired clay found in the burnt debris of level EBA II/3 has a flat handle and its quadrangular stamp face area is divided into sections by means of a cross symbol. In three of these four sections, there are outward facing chevrons (4–5 in number), and in the other one there is a cluster of four groups of lines going in different directions (fig. 17.a). A seal found in the Kusura B phase is very similar to the Hacilar Büyük Höyük example (Lamb 1937, Pl. VI.9a, fig. 12.18). Similar seals of this type were also found in different levels at Karataş-Semayük (Mellink 1965, figs 33.a–b, 37.a–b; 1967, figs 54–56, 58–59; 1970, fig. 23.a).

It is extremely interesting that seals with a cross and chevrons in the stamp face area were used in Anatolia over a long time period and in many different regions (Umurtak 2002). In this context, it should be noted that a similar red-painted motif is seen on the beige surface of the jar in level IIA of Hacilar, dated to the Early Chalcolithic Period (Mellaart 1970, Pl. LXXVII.3, fig. 82.5). The fact that this motif was used outside of Anatolia and numerous examples of seals and seal impressions with this motif dating to a long time period from the Neolithic to the Middle Bronze Age have been collected from many places over an extensive geographical area, from Byblos on the Syrian coast to the Balkans and as far as Mainland Greece, was highlighted in a symposium report (Younger 1987, figs 7–8). The same design is seen on the stamp face of a cylinder seal made of green stone found in the Cist Grave D at Kapros in Amorgos and kept at the Ashmolean Museum, the dating of which is discussed by Colin Renfrew (Renfrew 1967, 7, 18, Pl. 4.19). We would also like to highlight the similar motifs seen on the stamp faces of seals found at Prague–Bubeneč and at Záhorská Ves in Czechia (Makkay 1984, Pl. XXIII.194; XXVII.282), and at the Karonovo, Ruse and Drama settlements in Bulgaria (ibid., Pl. XXIII.210; Becker 2011, fig. 5.1–3). It is not easy to explain the similarities we have highlighted or the longevity of the same motif throughout such a wide geographical area and over thousands of years.

The second category is the group of special purpose seals that have different symbols and

designs on the stamp face area and are all unique examples, each of them different from the others in terms of their size and style and the process by which they were made. This means that the owners, and even the areas of use, of these special seals were different from the those of the other seals.

A special purpose seal from the EBA II settlement deposit of our höyük was carefully shaped from clay and its colour after firing is greyish beige. It is not clear which phase of EBA II it belongs to. The first thing that is striking about the circular stamp face area of the seal, which has a small flattish handle, are two symmetrical spiral motifs. In addition to these, there are three quadrangular shapes divided into four by a cross, with each section containing a dot, and another quadrangular with only three dots inside, along with “V” shaped motifs, broken, zigzag and parallel lines and another motif in the shape of a comb (fig. 17.b).

Another seal made from a black coloured, coarse paste has a circular stamp face area that is divided into four by two lines that intersect at right angles and the composition consists of two groups of four parallel lines opposite each other, one group of three parallel lines and one single parallel line. The handle of the seal has a string pierced hole, and the cross-shaped mark and two lines on the top of the handle are notable.

This seal is special due to its double-sided stamping function, which is a rarely seen characteristic, as both the stamp face area and the upper part of its handle can be used for this purpose (fig. 17.c). A double-sided seal was found in the storage structures of the Bademağacı EB II settlement. The main stamp face area is divided into four by a cross, and chevrons have been added to these spaces, and the second stamp face has a swastika motif⁵. An example of these double-sided seals was found at Tordos, a very distant geographical location. J. Makkay thinks that all the objects found together with this artefact that are difficult to date probably belong to the Vinča A–B period (Makkay 1984, fig. XVI.263).

The last example to be mentioned here is a schematic figurine-seal, described above (see above, fig. 16.e).

A bulla that had been burnt in a fire but was found in reasonable condition is brownish red in colour with black stains on the surface. We think that this bulla would have been attached to an immovable object, such as a wooden door handle. The broken back section of the bulla does not provide any clues concerning its use. In the circular seal impression, there are fourteen dots on the outer ring and a dot in the centre of the circle (fig. 17.d).

The Numerical Tablets and Labels

It is thought that numerical tablets were made to keep a record of countable goods, such as pottery items, crop bales, sheep and cattle, and even some tools and equipment, within the context and requirements of the Early Bronze Age economy, and to convey this account to the other trading party. It is understood that the notches made on the circular flat plaques with a fingernail or with the help of a tool were created in the pre-writing period to indicate the number of goods sent into and out of the official warehouse, and that these numerical tablets were oven-fired after the notches were made in order to preserve them. This indicates the existence of a specific system here, in which each nail print represented a certain product or group of goods. The fact that these tablets were oven-fired means they were not disposed of immediately and there was a desire for them to be permanent. Three numerical tablets uncovered in the region, in the EBA II settlement at Bademağacı, have already provided information on this subject and were evaluated by the author of this article (Umurtak 2009).

Based on the above information, the beige coloured circular item with a flat base and a convex upper section with three scratches/marks on each side of it, found in the EBA II/3 settlement at

5 The author is preparing this seal for publication.

Hacılar Büyük Höyük, should be considered to be a numerical tablet (fig. 18.a).

The beige coloured flat, circular label that belongs to the EBA II/2 settlement at Hacılar Büyük Höyük is vertically pierced in the middle and has four horizontal and two vertical nail prints on one surface. It is thought that this piece was tied to the handle of a container or an object by threading a string through its pierced hole, and the nail prints gave information about the contents of it (fig. 18.b).

Metal Finds

One of the few metal finds from the Hacılar Büyük Höyük EBA II settlements is a pin with a partially eroded head found in Trench AB that belongs to the EBA II/1 settlement (fig. 19.a, Table 1)⁶.

A gold ear plug was found in the EB II deposit in Trench AB. It is made of single, very thin sheet of gold and has a circular head, a decoration consisting of four rows of grooves on its body and the end section that enters the ear. The tip of the ear plug is slightly damaged and the inside of this object is filled with another dark grey substance (fig. 19.b, Table 2).

Another gold earplug that is similar to the one from Hacılar Büyük Höyük was found among the stones of a building foundation in the Bademağacı EBA II/3 settlement (Duru 2008b, fig. 354). A second earplug similar in form and from the same period was found at this site, but this one has not yet been published. An object made of marble from the same period appears to be an imitation of the gold plug in terms of its shape and size. The gold earplugs found in infant graves in Karataş-Semayük are the closest parallels to the ones from Hacılar Büyük Höyük and Bademağacı (Mellink 1969, 323, Pl. 74.16; Bordaz 1973, 85 ff, Pl. 11).

Some of these small finds, which were initially referred to as “earplugs” or “ear studs” in archaeology publications, are made of stone, clay and metal and were mostly found in Central and Western Anatolia. As some of these ear plugs were found in graves, it is thought that they were left as burial gifts for the dead or worn as ornaments by those who were alive (Duru 1972, 123–135, fig. 1). Louise Alpers Bordaz, who examined the earplugs found in Karataş Semayük, stated that they could have been worn by piercing the ear lobes and ensuring visibility of their decoration, and that these objects were meant for this type of use (Bordaz 1973, 91–92). The earplugs found at Demirci-höyük Sarıket Cemetery also support this view (Seeher 2000, Abb. 36.b-d-G295). Refik Duru states that, although the stone and clay finds and other objects called plugs and stoppers from Anatolia and its neighbouring countries are similar in shape to the gold earplugs, they were not found in settings that are definitive enough to prove they are earplugs (Duru 1972, 124). For example, the discovery of gold plugs *in situ* in graves and on both sides of the skulls of the dead at Central Anatolian EBA centres, Koçumbeli and Karayavşan, and at Eski Balıkhane near Sardis in Western Anatolia, provides evidence to support the classification of these objects and their function (Duru 1972, 123; Bordaz 1973, 88).

An iron dagger with a wooden handle was found in the middle section of Trench AB in a thick layer of burnt debris belonging to level EBA II/3 (fig. 20.a, Table 3). The dagger, which reflects an exceptionally high-quality workmanship, has a slightly broken tip⁷. There are traces of textile on the dagger (fig. 20.b). The metal rivet that connects the dagger to its wooden handle (fig. 20.c)⁸ is intact.

6 Portable X-ray Fluorescence (p-XRF) technique was carried out on some of the metal objects from Hacılar Büyük Höyük for elemental analysis by archaeometrist Assoc. Prof. Dr. Gonca Dardeniz Arkan. The tables given here were prepared by her.

7 The cleaning of the dagger was carried out and conservation measures were taken in 2017 by experts, especially Seda Tulgar Yılmaz, at the Istanbul Central Laboratory of the Ministry of Culture and Tourism.

8 The sample taken from the handle of this object was sent to the Turkish Scientific and Technical Research Institution (TÜBİTAK), but as the wood was in very poor condition it was not possible to do a C 14 analysis on it.

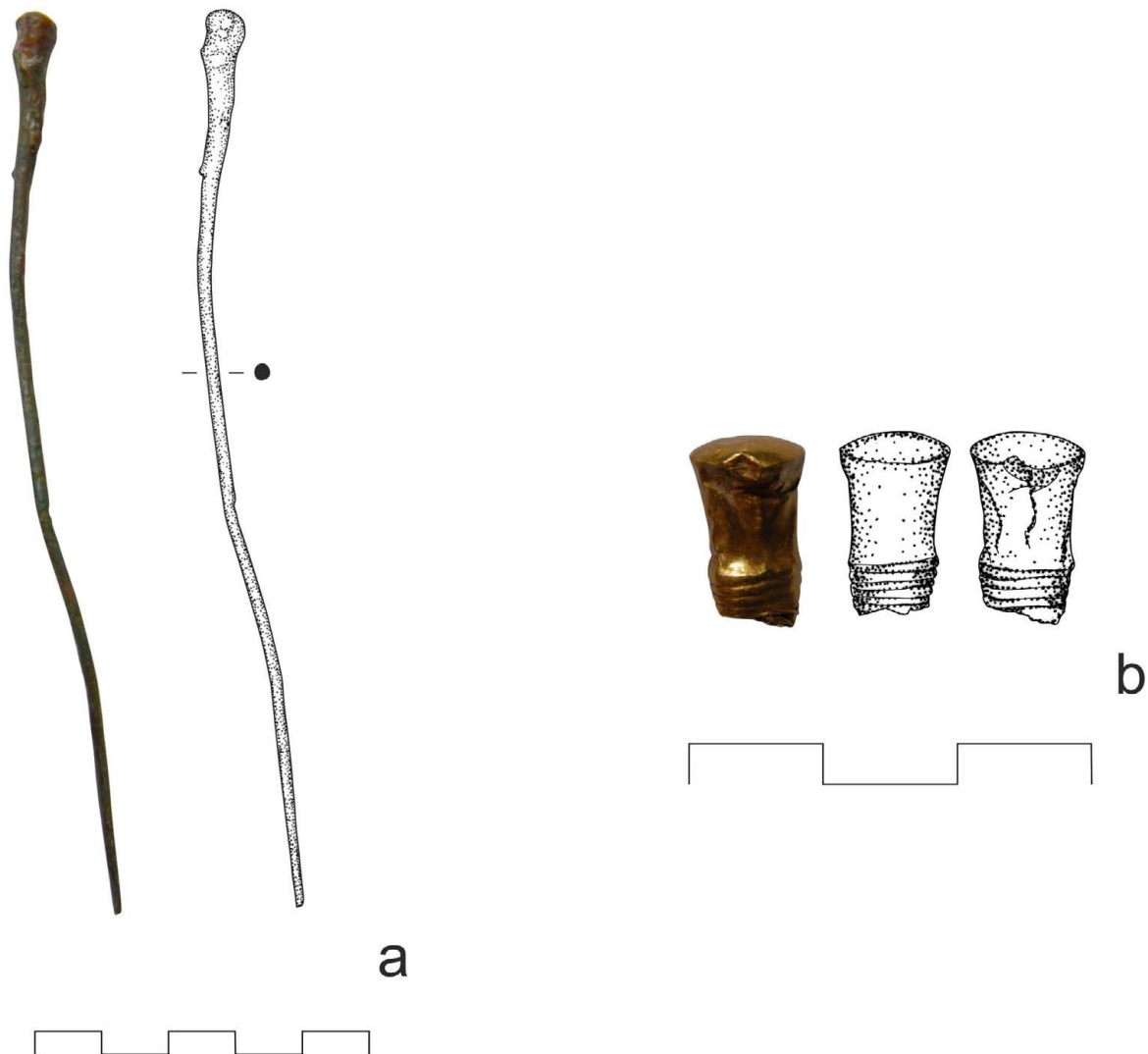


Fig. 19. a. A metal pin; b. A gold earplug (HBH Excavations – archive)

Iron metallurgy in Anatolia and the Near East did not reach a level high enough for large-scale equipment and weapon production until the Iron Age, which is named after this metal. However, the history of iron artefacts found in archaeological excavations in Anatolia can be traced back to the 3rd millennium BC. The information about a mace head found at Korucutepe is not definitive (Yalçın 1998, 79, Table 1; 1999, 177, Table 1). Although the existence of iron artefacts at Samarra in 6000 BC and Tepe Sialk II in 5500–5000 BC (Pernicka 1990, 60 ff, Table 7; Yalçın 2005, 493) has been stated, definitive evaluations are not possible as a detailed analysis was not made of all these examples. However, the fact that there is relatively reliable evidence for the use of iron in the Near East at centres such as Ur, Khafaje, Kiš (ibid.) in the 3rd millennium BC needs to be taken into account. Although iron artefacts have been found at a few centres in Anatolia dating to the 3rd millennium BC, such as Tilmen Höyük, Tarsus Gözlükule, Alaca Höyük, Kaman Kalehöyük and Troia (Yalçın 1999, 177, Table 1; 2005, Table 1; Akanuma 2008, 213 ff), issues such as insufficient analysis of these objects and problems related to their sources are topics that have been at the forefront of discussion for a long time.

The results of the analysis carried out on the samples taken from five different points on the front and back of the dagger from Hacilar Büyük Höyük reveal the presence of 98.23% and 98.20% iron and 0.01% nickel. The low nickel values in all the analysed samples indicate that the source of

Alloy type	Cu (wt)	As (wt)	Sn (wt)	Sb (wt)	Pb (wt)	Fe (wt)	Ni (wt)	Ag (wt)	Au (wt)	Zn (wt)	Bi (wt)	Total
Cu-As	98.64	1.80	0.64	-	0.26	0.07	0.17	0.04	0.01	-	-	101.63

Table 1. The element percentages of the pin analysed by pXRF

Alloy type	Cu (wt)	As (wt)	Sn (wt)	Sb (wt)	Pb (wt)	Fe (wt)	Ni (wt)	Ag (wt)	Au (wt)	Zn (wt)	Bi (wt)	Total
Au-Ag-As	0.77	1.91	-	0.01	0.02	0.08	-	1.64	93.31	0.09	0.16	97.99

Table 2. The element percentages of the earplug analysed by pXRF

the dagger is more likely to be terrestrial than meteoric iron (Table 3). In the regions neighbouring Hacilar Büyük Höyük, only one iron find is mentioned and that was from Kusura. This metal find dated to the Middle Bronze Age was not analysed (Lamb 1938, 257).

Iron objects from the 3rd millennium BC in Anatolia that can be compared with the Hacilar Büyük Höyük dagger include the comparatively better known Alaca Höyük iron daggers, one of which has a golden handle. Ünsal Yalçın emphasises that these are not of meteoric origin due to the low nickel content (Yalçın 2005, 493 ff). There is no similarity in form between these objects and the Hacilar Büyük Höyük dagger. Other examples are the iron objects and slag (Küçükarslan et al. 2025, 337 ff) from EBA Level IV at Kaman-Kalehöyük (approximately 2100–1930 BC) but a comparison between these and the Hacilar Büyük Höyük dagger on the basis of archaeological methods is not possible. The required analysis on the sample taken from the fabric that is understood to have been wrapped around the dagger was carried out by experts⁹, and no dye substance was detected. The textile fibre could be clearly seen in the analysis. According to the report, “the fabric of the textile sample found on the dagger is of the plain/tabby fabric type”, and in the detailed examination it was also determined that “there were two layers of textile fibre” (fig. 20a–b).

Cotton fabric is a type of textile that is rarely seen in Anatolia during the period that the dagger is from. In almost all regions of the world, the origin and first use of the “cotton” plant are still uncertain. Many researchers accept that the oldest cotton fabrics first appeared in the Indus Valley. The existence of cotton fibre was confirmed in the Mohenjo-Daro excavations (2500–1700 BC) and a microscopic examination revealed that the typical cotton fibre properties of *Gossypium arboreum* were present (Amer, Momtaz 1999, 211 ff; Roche 1994, 5).

The Harappan people in Mohenjo-Daro not only cultivated cotton but also developed ginning, spinning and weaving methods (Ghosh, Ghosh 1995, 23 ff). It is also reported that fishing nets, lamp wicks and textile fragments were found in different levels in excavations at Huaca Prieta in Northern Peru, and these are dated to 2400 BC, 1700 BC and 1600–1500 BC. At Nubia in Egypt, cotton seeds dating to 2600–2400 BC were found in animal dung. Based on Hieroglyphic symbols and the presence of seeds found in Thebes, W. Amer and O. Momtaz believe that the ancient Egyptians knew about cotton at a date as early as 2400 BC (Amer, Momtaz 1999, Table 1, 11 ff).

Concluding Remarks

Apart from the strong wall belonging to EBA II/2 in Trench C, the architectural remains of the

⁹ The analysis work was carried out by Dr. Emine Torgan at Armaggan DATU Laboratory (Istanbul) in 2017. The analysis results were also evaluated by Prof. Dr. Recep Karadağ. The textured fabric sample taken from the dagger was examined in the following stages: 1. High Performance Liquid Chromatography with diode array detection; 2. Optical Microscope; 3. Scanning Electron Microscopy with energy dispersive X-ray spectroscopy.

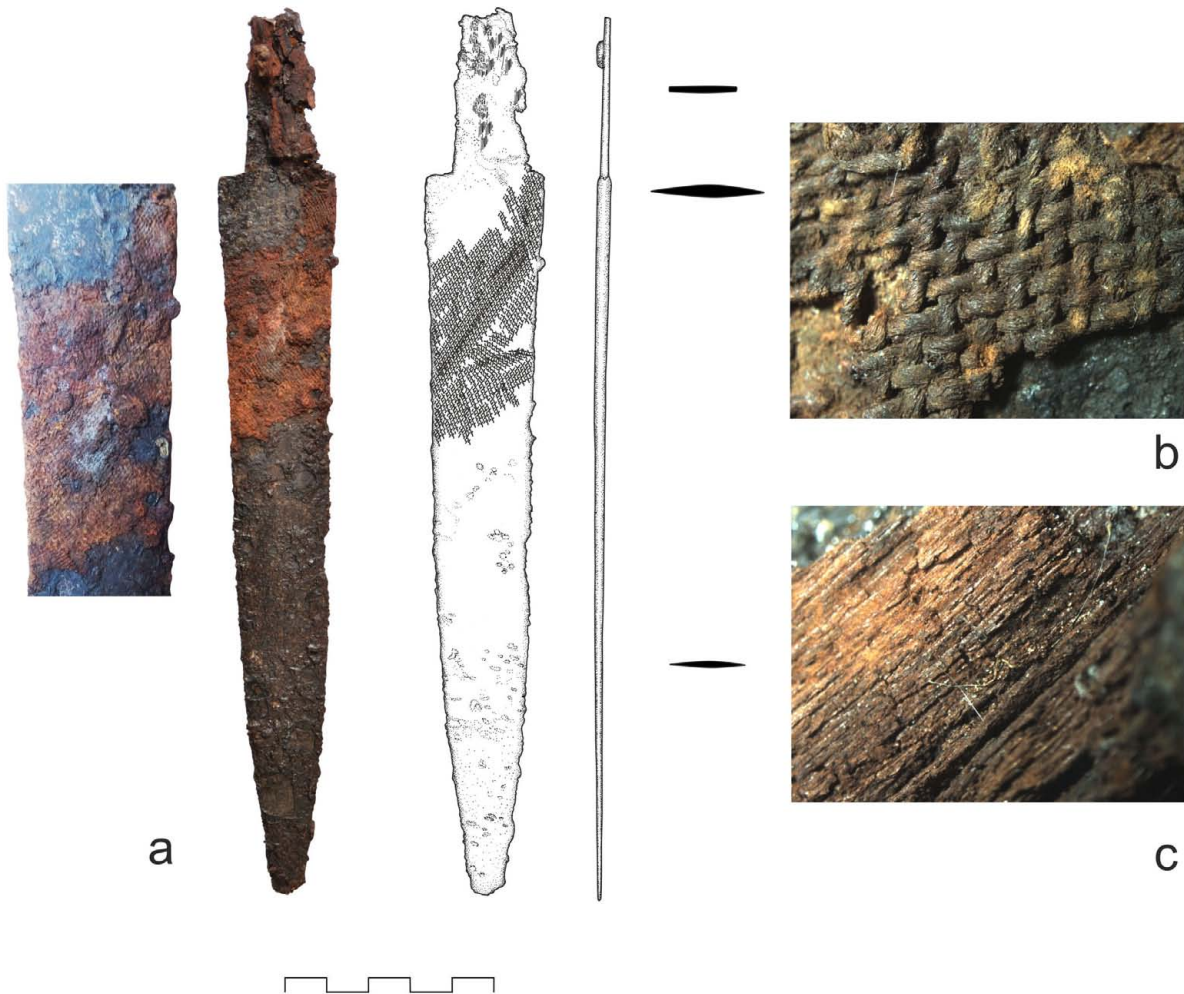


Fig. 20. a. An iron dagger; b. detail of the fabric on the iron dagger; c: detail of the wooden handle of the iron dagger (HBH Excavations – archive)

first two of the three EBA settlement levels uncovered at Hacılar Büyük Höyük were severely damaged due to their proximity to the surface. No building with a complete plan has yet been uncovered in the EBA II/2 and II/1 settlements. The EBA II/3 settlement, which is in the process of being re-excavated, has provided comprehensive information about the architecture and immovable objects following the excavations of a megaron in Trench AB, along with a megaron found in Trench C that has a newly discovered structure adjacent to it, and a courtyard with a kiln inside it.

As there was no settlement at Kuruçay or Bademağacı during the EBA I period, the precursor of the EBA II architecture in the region needs to be sought in the EBA I settlement at Hacılar Büyük Höyük. The buildings of the EBA I defence system bordering the western side of Hacılar Büyük Höyük (figs 2–3) are very similar in plan to that of a megaron. In Trench AB, there are two large megaron-like buildings belonging to the same settlement that were used for storage, and to the east of these structures there are two more megarons, one complete and the other in a dilapidated state. The Kuruçay EBA II settlements do not provide much information about the architecture, but in the EBA II settlement at Bademağacı there is a well-developed layout with an architectural plan that consists of about 50 megarons surrounding the city and a 17-room “Home of the Ruler” located in the central section and official storage buildings in the southern part of the settlement (Duru 2016, 83 ff; Duru, Umurtak 2022, 77 ff). Hacılar Büyük Höyük is the only excavated centre in this region from which information can be obtained prior to EBA II.

Analysis spot	Front point 1	Front point 2	Front point 3	Front point 4	Front point 5	Average Conc.	Std. Dev.
Element (%)	Conc.	Conc.	Conc.	Conc.	Conc.		
Fe	98,52	98,40	98,34	98,08	97,80	98,23	0,29
Mn	0,75	0,86	0,81	0,72	0,48	0,72	0,15
Ni	0,01	0,01	0,01	0,01	0,02	0,01	0
Co	0,54	0,55	0,53	0,58	0,61	0,56	0,03
Cu	0,05	0,06	0,11	0,04	0,13	0,08	0,04
Zn	–	–	–	0,01	0,01	–	0
As	–	–	0,01	–	–	–	nd
Ag	0,07	0,06	0,07	0,09	0,05	0,07	0,01
Sn	–	–	–	0,01	0,03	0,01	0,01
Sb	0,02	0,02	0,06	0,44	0,83	0,28	0,36
Au	–	–	–	0,01	0,01	0,01	0
Pb	–	0,03	0,04	0,01	0,02	0,02	0,01
Bi	–	–	–	–	–	–	nd

Analysis spot	Back point 1	Back point 2	Back point 3	Back point 4	Back point 5	Average Conc.	Std. Dev.
Element	Conc.	Conc.	Conc.	Conc.	Conc.		
Fe	98,06	98,42	98,26	98,17	98,11	98,20	0,14
Mn	0,91	0,84	0,73	0,56	0,75	0,76	0,13
Ni	0,02	–	0,01	–	0,01	0,01	0
Co	0,55	0,51	0,54	0,60	0,56	0,55	0,03
Cu	0,26	0,07	0,16	0,03	0,1	0,13	0,09
Zn	–	–	–	–	–	–	nd
As	0,04	–	0,01	–	0,01	0,01	0,02
Ag	0,06	0,06	0,06	0,06	0,06	0,06	0
Sn	–	–	–	0,01	0,01	–	0
Sb	0,01	0,05	0,15	0,55	0,31	0,22	0,22
Au	0	–	–	0,01	0,01	0,01	0,00
Pb	0,07	0,03	0,06	–	0,05	0,04	0,02
Bi	–	–	–	–	–	–	nd

Table 3. The element percentages of the dagger analysed by pXRF

The fact that the Hacılar Büyük Höyük EBA II pottery shares important similarities with the Kuruçay EBA II pottery in terms of both ware type and form has been highlighted above. The same similarity is seen to a great extent when a comparison is made with the Bademağacı EBA II pottery. I have personally studied the pottery from the three centres over many years of excavations. Based on this, it can be said that the similarities that point to a common tradition are far more numerous and extensive than those highlighted in this article. When the question of the origins of the Hacılar Büyük Höyük EBA II pottery is raised, there is evidence for a precedence and continuity among the EBA I pottery in the same settlement that can be especially seen in some miniature jugs and two-handled jugs in the Ware 4 group. A similar continuity of the sophisticated ware types and forms has been determined between the EBA I wares and the Kuruçay Late Chalcolithic pottery. It is observed that some pottery practices survived for a very long time in the region, while at the same time new innovations emerged that were implemented in EBA I and EBA II.

It is understood that the EBA II culture, which is the last settlement period at Hacılar Büyük Höyük, shares some common characteristics with contemporary settlements beyond the Burdur Region and even with a large part of Western Anatolia. This is especially true in relation to the pottery

Investigating the Early Bronze Age II settlement at Hacılar Büyük Höyük (Burdur, Türkiye)

and fired clay schematic figurines, which suggest a significant similarity. As already stated, a unique style is dominant in the region during the EBA. In general, it can be said that the customs and practices of this period seen in Western Anatolia, and even the Aegean World, have certainly also influenced this region.

The fact that a large number of seals were found in the EBA I and II settlements at Hacılar Büyük Höyük provides an insight into property rights in this period, showing that ownership was not restricted to the rulers and other powerful people but individuals living in these settlements could also own property. If a possible connection is established between the number of seals found in the settlement, the number of houses and the places where the seals were found, more realistic results can eventually be obtained. The seals were undoubtedly produced by expert craftsmen and workshops specialised in this field. In this context, not only the special seals that have been described, but all the seals produced and used in this period, must have been influenced by the social rules, traditions and beliefs of the ruler and central authority. To what extent could the personal preferences of the owners who ordered (!) a particular seal be taken into account? Status, duty, profession, and perhaps gender, must have influenced the style and type of the seal to be owned. It needs to be considered that the seals in question not only defined property, but were also thought to have a magical power and were extremely valuable items that would be passed down from ancestors to children. It is generally accepted that the simple small seals with a plain design must have had functions in daily life, such as proving the property rights of individuals and families, and would also have been used for securing doors, silos, chests or boxes by closing and securely sealing them.

The large special purpose seal from Hacılar Büyük Höyük described above contains several symbols. Similar examples were found in the Bademağacı EBA settlements (Duru 2008a), and a seal of unknown origin kept at the Burdur Museum is included in the same group (Umurtak 2013, fig. 8). These seals are probably unique, as they were produced for the official use of the central authority. A double spiral motif and zigzags seen in the stamp surface area of this seal are symbols encountered in the region from the Neolithic Period onwards (Mellaart 1970, fig. 59, Pl. LVII/1; Umurtak 2005, Pl. 85.2, 86.5, 108.4; 2019, Pl. 103.6; Yurtsever Beyazıt 2019, fig. 1). The first example of the spiral motif and its variants that comes to mind is a seal uncovered in level VIA layer at Çatal Höyük in Anatolia, dating to the Neolithic Period (Mellaart 1964, fig. 41/9), and this motif is seen in considerably distant regions over a long period of time (Makkay 1984, 90 ff, figs XVIII–XX). Marija Gimbutas thinks that this widely used motif, the origins of which can be traced back to very early periods, is a snake symbol and expresses the belief that the snake is a life force, a seminal symbol and an epitome of the worship of life on this earth (Gimbutas 1989, 121 ff). Jack Yakar also considered this same motif to be “a coiled snake” (Yakar 2016, fig. 3.a–d). The two spiral motifs on the Hacılar Büyük Höyük seal that immediately attract attention are similar to the motifs that Gimbutas calls the “Divine Eye Source” (Gimbutas 1989, 54 ff, figs 97–98). All the symbols on this seal, which consist of quadrangles, each of which is divided into four by a cross with a dot in each section, zigzags and lines, should certainly be considered to have had a meaning and symbolise some abstract concepts.

It is very important to determine whether one or more of the symbols on the seal have been used on another seal or object. If a symbol also represents a word, there must be a phonetic equivalent. However, I believe the subject of whether unusual seals containing symbols/signs that belong to pre-writing periods were the precursor of future writing systems needs further discussion. The stages that societies went through before writing are not yet clearly understood. The symbols drawn on the pottery found at Tordos, a Vinča settlement in Romania, on the fired clay tablets from Tărtăria, and the Gradeshnitsa plaque and the Karanovo seal are extremely interesting finds. All these examples are dated much earlier than the Hacılar Büyük Höyük EBA settlements, and the question of whether these are *logographs* and *phonographs* is debatable (Lazarovici et al. 2011, 162 ff; Umurtak 2013,

53). The Linear A and Linear B scripts from a later period, with the contributions we have made here, will definitely be the subject of a comprehensive future discussion.

In addition, the fact that a numerical tablet and a label were found at the settlement, along with stamp seals and a bulla, is extremely significant. The numerical tablet and the label suggest the existence of an official warehouse, the recording of goods entering and leaving and trade, and this points to the presence of a division of labour and specialisation in certain areas in society. All of these factors contribute to the idea that the emergence of writing in the Aegean World and the Balkans followed a different developmental path from that observed in the Near East.

At Hacılar Büyük Höyük, more metal artefacts such as pins with heads, piercing tools, daggers and bracelets were found in the EBA I settlement than in the EBA II period, but this could also be related to the relative extent of excavated areas. Not many metal artefacts were found in the EBA II settlement, as the only finds are an arsenic copper pin, an iron dagger and a gold earplug. These objects are very different from each other in terms of metal type, production method and function, and only one example of each of them has so far been found. No artefacts related to the production and/or processing of metal objects (ingots, crucibles, moulds, slag etc.) have yet been identified in the excavated areas of the settlement. In the light of this data, it can be assumed that the metal artefacts were imported goods from another centre. The fact that an iron weapon reflecting an advanced workmanship was found in the EBA II settlement has also raised several questions. The history, adoption and spread of iron metallurgy in Anatolia is a controversial topic (Alberghina, Jean 2023, 175 ff) and the insufficient information about it is due to the limited number of examples from the EBA period or, in some cases, because of lack of analysis. Written sources from the Karum of Kanesh and Hittite texts indicate that iron was still considered a metal of luxury and prestige in this period and archaeological data unequivocally shows that the vast majority of utilitarian objects were still made of bronze (ibid., 181).

Based on current knowledge, there are no other cotton textile examples or any reference point found in Anatolia that could explain how such finds could have appeared at Hacılar Büyük Höyük around 2800 BC, and there are no comparable examples. There is nothing among the botanical remains found and examined at the settlement so far that could be identified as cotton seeds. For the time being, the question of how the earliest examples of cotton production and cotton textile knowledge, which are accepted to have emerged in Egypt and the Indus Valley, reached Hacılar Büyük Höyük in the southwest of Anatolia will remain a mystery until other examples are found that may help to complete this chain.

There is evidence that the communities living in the region where Hacılar Büyük Höyük is located during the EBA II period were aware of each other and were possibly related to each other. The main characteristics of this period are megaron-type buildings that are understood to have developed from the EBA I culture, traditional pottery production, belief in a goddess symbolised by schematic figurines, a rich stamp seal tradition, and spindle whorls and loom weights indicating a knowledge of weaving. In addition to these, numerous finds from Bademağacı are evidence of a rich bronze and silver metallurgy at that site. Signs and symbols seen on special purpose seals, finds such as bullae, numerical tablets and labels could be important links in the story of the emergence of writing and social development. Does the concept of Luwi and the Luwians have a place in this story? According to C. H. Melchert, “We have a very imperfect idea of the location and extent of Luwiya”. He states, “One reason for this is no evidence that there was ever a unified Luwian state or polity – there are no kings of Luwian or a capital city” (Melchert 2003, 2).

We have tried to highlight the conventional, traditional elements that characterise the EBA culture at Hacılar Büyük Höyük and other excavated centres in the region. An iron dagger with a textile wrapped around it, which was found in the burnt debris of a fire that is understood to have af-

Investigating the Early Bronze Age II settlement at Hacılar Büyük Höyük (Burdur, Türkiye)

fecting the EBA II/3 settlement, is extremely significant. No similar example to this find has yet been encountered in this region or any of the neighbouring areas. In the future when issues that are not clearly understood, such as the emergence of writing in Western Anatolia and ethnic mobility, begin to be enlightened, the evidence that has been uncovered at Hacılar Büyük Höyük will undoubtedly make a significant contribution.

Acknowledgements

The Hacılar Büyük Höyük Excavations were supported by the Ministry of Culture and Tourism of Türkiye and Istanbul University Scientific Research Projects (no. SBA-2023-40156).

The Burdur Archaeology Museum Directorate gave us full support at every stage of the excavations and the work involved.

As mentioned in the text footnotes, I would like to thank Dr. Emine Torgan and Prof. Dr. Recep Karadağ for the textile analysis and evaluation, Seda Tulgar Yılmaz for the cleaning and conservation of the iron dagger, and Assoc. Prof. Dr. Gonca Dardeniz Arıkan for the metal analysis.

I extend my thanks to my colleague Angela Bell (MA Istanbul University) for translating this article into English, and to Burhan Gülkan (MA Istanbul University) and M. Akif Ugan (MSc Istanbul Technical University), who produced the drawings in this article.

Catalogue

Bowl (fig. 9)

Find location: Trench AB
Level: EBA II/3
Measurements: mouth diameter 25.5 cm
Excavation Inventory number: HBH 2021/ 5
Burdur Archaeological Museum Inventory number: P.62.11.21

Special Bowl (fig. 10)

Find location: Trench C
Level: EBA II/1
Measurements: mouth diameter 8.8 cm, height 10.5 cm
Excavation Inventory number: HBH 2022/1
Burdur Archaeological Museum Inventory number: P.18.2.22

Jar (fig. 11)

Find location: Trench AB
Level: EBA II/3
Measurements: mouth diameter 14.7 cm, height 22.9 cm
Excavation Inventory number: HBH 2016/7
Burdur Archaeological Museum Inventory number: P.7.1.16

Beak Spouted Miniature Jug (fig. 12)

Find location: Trench C
Level: EBA II/1
Measurements: diameter 6.6 cm, height 9.5 cm
Excavation Inventory number: HBH 2011/1
Burdur Archaeological Museum Inventory number: P.15.14.11

Red Cross Bowl (fig. 13)

Find location: Trench AB
Level: EBA II
Measurements: mouth diameter 13.5/16 cm, height 9 cm
Excavation Inventory number: HBH 2012/4
Burdur Archaeological Museum Inventory number: P.8.23.12

Beak Spouted Miniature Jug (fig. 14)

Find location: Trench C
Level: EBA II/3
Measurements: diameter 7.2 cm, height 9 cm
Excavation Inventory number: HBH 2024/1
Burdur Archaeological Museum Inventory number: 225.19.24

Two Handled Jug (fig. 15)

Find location: Trench C
Level: EBA II/3
Measurements: mouth diameter 7.6 cm, height 19 cm
Excavation Inventory number: HBH 2023/10
Burdur Archaeological Museum Inventory number: 33.14.24

Schematic figurine (fig. 16.a)

Find location: Trench AB
Level: EBA II/2
Measurements: height 4.4 cm
Excavation Inventory number: HBH 2015/31
Burdur Archaeological Museum Inventory number: P.31.1.15

Schematic figurine (fig. 16.b)

Find location: Trench AB
Level: EBA II/2
Measurements: height 4.0 cm
Excavation Inventory number: HBH 2015/7
Burdur Archaeological Museum Inventory number: P.7.1.15

Schematic figurine (fig. 16.c)

Find location: South of Trench C
Level: EBA II
Measurements: height 6.2 cm
Excavation Inventory number: HBH 2012/18
Burdur Archaeological Museum Inventory number: P.23.23.12

Schematic figurine (fig. 16.d)

Find location: Trench AB
Level: EBA II
Measurements: height 5 cm
Excavation Inventory number: HBH 2011/10
Burdur Archaeological Museum Inventory number: P.14.14.11

Schematic figurine-seal (fig. 16.e)

Find location: Northeastern Trench
Level: EBA II
Measurements: exist height 3.3 cm
Excavation Inventory number: HBH 2015/17
Burdur Archaeological Museum Inventory number: P.17.1.15

Stamp Seal (fig. 17.a)

Find location: Trench AB
Level: EBA II/3
Measurements: stamp face width 3.1 cm, height 3.0 cm
Excavation Inventory number: HBH 2016/3
Burdur Archaeological Museum Inventory number: P.3.1.16

Stamp Seal (fig. 17.b)

Find location: Trench AB
Level: EBA II/3
Measurements: diameter 5.8 cm, height 2.9 cm
Excavation Inventory number: HBH 2011/1
Burdur Archaeological Museum Inventory number: P.5.14.11

Double-sided Stamp Seal (fig. 17.c)

Find location: Western Slope Trench
Level: EBA II deposit
Measurements: diameter 2.8–1.2 cm, height 2.5cm

Excavation Inventory number: HBH 2014/14

Burdur Archaeological Museum Inventory number: P.14.1.14

Bulla (fig. 17.d)

Find location: Trench AB
Level: EBA II deposit
Measurements: diameter (stamp impression) 2.0 cm
Excavation Inventory number: -
Burdur Archaeological Museum Inventory number: -

Numerical tablet (fig. 18.a)

Find location: Trench AB
Level: EBA II/3
Measurements: diameter 4.1–4.3 cm
Excavation Inventory number: HBH 2015/15
Burdur Archaeological Museum Inventory number: P.15.1.15

Label (fig. 18.b)

Find location: Trench C
Level: EBA II/2
Measurements: diameter 2.3 cm, height 1.3 cm.
Excavation Inventory number: HBH 2022/3
Burdur Archaeological Museum Inventory number: P.20.2.22

Pin (fig. 19.a)

Find location: Trench AB
Level: EBA II/1
Measurements: head diameter 0.6 cm, length 13.5 cm.
Excavation Inventory number: HBH 2014/31
Burdur Archaeological Museum Inventory number: P.31.1.14

Earplug (fig. 19.b)

Find location: Trench AB
Level: EBA II deposit
Measurements: head diameter 0.8 cm, exist length 1.3 cm.
Excavation Inventory number: HBH 2013/8
Burdur Archaeological Museum Inventory number: P.8.1.13

Dagger (fig. 20.a–c)

Find location: Trench AB
Level: EBA II/3
Measurements: width 2.8 cm, length 21 cm.
Excavation Inventory number: HBH 2017/1
Burdur Archaeological Museum Inventory number: P.1.1.17

References

- Alberghina, D.M., Jean, É. 2023. Alaca Höyük Metal Eserleri Bağlamında: Anadolu’da Tunç ve Demir Çağları’nda Metalurji Uygulamalarının Gelişimi / The Alaca Höyük Metal Artefacts in Context: Developments of Metallurgical Practices in Anatolia During the Bronze and Iron Ages. In Yıldırım, T., Önder, D. (eds) *Bir İdealin Peşinde, Atatürk ve Alaca Höyük / In Pursuit of an Ideal, Atatürk and Alaca Höyük*. Istanbul: Yapı Kredi Kültür Sanat Yayıncılık, 175–185.
- Akanuma, H. 2008. The Significance of Early Bronze Age Iron Objects from Kaman-Kalehöyük, Turkey. *Anatolian Archaeological Studies* XVII, 313–320.
- Amer, W., Momtaz, A.O. 1999. Historic Background of Egyptian Cotton (2600 BC – AD 1910). *Archives of Natural History* 26.2, 211–222.
- Becker, V. 2011. Chalcolithic Clay Stamps from Bulgaria. *Studia Praehistorica* 14, 221–241.
- Bilgen, A.N., Coşkun, G., Bilgen, Z., Ünan, N., Silek, S., Çırakoğlu, S., Özcan, F.Ç., Kuru, A., Kuzu, Z. 2012. Seyitömer Höyük 2011 Yılı Kazısı. 34. *Kazı Sonuçları Toplantısı I*, 201–216.
- Bilgi, Ö. 2012. *Anadolu’da İnsan Görüntüleri*. İstanbul: Arkeoloji ve Sanat Yayınları.
- Bordaz, A.L. 1973. *The Metal Artefacts from the Bronze Age Excavations at Karataş-Semayük, Turkey and their Significance in Anatolia, the Near East, and the Aegean*. Unpublished PhD Thesis, Bryn Mawr College.
- Delcroix, G., Huot, J.L. 1972. Les Fours dits “de potier” dans l’Orient ancien. *Syria* 49.1–2, 35–95.
- Duru, R. 1972. Anadolu’da Bulunmuş Altın Kulak Tıkaçları. *Belleten* XXXVI, 123–135.
- Duru, R. 1996. *Kuruçay Höyük II. 1978–1988 Kazılarının Sonuçları, Geç Kalkolitik ve İlk Tunç Çağı Yerleşmeleri*. Ankara: Türk Tarih Kurumu Yayınları.
- Duru, R. 2003. Bademağacı Kazıları. 2000 ve 2001 Yılları Çalışma Raporu. *Belleten* LXVI, 549–594.
- Duru, R. 2008a. Bademağacı’nda Bulunmuş İki Mühür. In Tarhan, T., Tibet, A., Konyar, E. (eds) *Muhibbe Darga Armağanı*. İstanbul: Sadberk Hanım Müzesi Yayınları, 236–242.
- Duru, R. 2008b. *From 8000 BC to 2000 BC, Six Thousand Years of the Burdur-Antalya Region*. İstanbul: Suna-İnan Kiraç Research Institute on Mediterranean Civilizations, Graphis.
- Duru, R. 2016. *Tarım’dan Yazı’ya, Burdur Yöresi ve Yakın Çevresi’nin Altıbin Yılı (MÖ 8000 – MÖ 2000)*. Antalya: Kutlu & Avcı Ofset.
- Duru, R. 2017. Hacılar Büyük Höyük İTÇ I Yerleşmesinde Bulunmuş İki Özgün Kap Türünün Tarihlenmesi Sorunu. In Özkan, S., Hüryılmaz, H., Türker, A. (eds) *Samsat’tan Acemhöyük’e Eski Uygarlıkların İzinde, Aliye Öztan’a Armağan*. İzmir: Ege Üniversitesi Basımevi, 81–86.
- Duru, R., Umurtak, G. 2022. Bademağacı Höyüğü’nde 18 Yıl (1993–2010) / 18 Years at Bademağacı Höyük (1993–2010). In Demirel, M., Arslan, M., Atalay S., Orhan U. (eds) *Antalya Müzesi 100 Yaşında*. Ankara: TC Kültür ve Turizm Bakanlığı, Özel Ofset, 71–82.
- Efe, T. 1988. *Demircihöyük. Die Ergebnisse der Ausgrabungen 1975–1978. Band III,2. Die Keramik* 2. Mainz am Rhein: Verlag Philipp von Zabern.
- Ezer, S. 2013. Middle Bronze Age Pottery Kilns at Şaraga Höyük. *Belleten* LXXVII/ 278, 1–14.
- Eslick, C. 2009. *Elmalı-Karataş V. The Early Bronze Age Pottery of Karataş: Habitation Deposits*. Oxford: Archaeopress.
- Ghorbani, A. 2023. A Typology of Traditional Ceramic Kilns in Iran from the Prehistoric to the Contemporary Period. *Journal of Art & Civilization of the Orient* 11 (40), 69–78.
- Ghosh, G.K., Ghosh, S. 1995. *Indian Textiles, Past and Present*. New Delhi: APH Publishing Corporation.

- Gimbutas, M. 1989. *The Language of the Goddess*. San Fransisco: Harper & Row Publishers.
- Hasaki, E. 2002. *Ceramic Kilns in Ancient Greece: Technology and Organization of Ceramic Workshops*. Unpublished PhD Thesis, University of Cincinnati.
- Melchert, H.C. 2003. Introduction. In Melchert, H. C. (ed.) *The Luwians*. Leiden: Brill, 165–169.
- Küçükarslan, N., Ota, T., Potiszil, C., Kobayashi, K. 2025. Exploring the Evidence for the Early Bronze Age Iron Production at Kaman-Kalehöyük. In Maner, Ç., Weeden, M., Omura, M., Matsumura, K. (eds) *It All Began with Stratigraphy and Chronology. Archaeology in Central Anatolia (Festschrift Dedicated to Sachihito Omura on his 77th Birthday)*. Wiesbaden: Harrassowitz Verlag, 337–358.
- Lamb, W. 1937. Excavations at Kusura near Afyonkarahisar. *Archaeologia* 86, 1–64.
- Lamb, W. 1938 Excavations at Kusura near Afyonkarahisar. *Archaeologia* 87, 217–273.
- Lazarovici, G., Lazarovici, C.M., Merlini, M. 2011. *Tărtăria and the Sacred Tablets*. Cluj-Napoca: Editura Mega.
- Lloyd, S., Mellaart, J. 1962. *Beycesultan Vol. I, The Chalcolithic and Early Bronze Age Levels*. London: The British Institute of Archaeology at Ankara.
- Makkay, J. 1984. *Early Stamp Seals in South-East Europe*. Budapest: Akadémiai Kiado.
- Mellaart, J. 1964. Excavations at Çatal Hüyük, 1963, Third Preliminary Report. *Anatolian Studies* 14, 39–119.
- Mellaart, J. 1970. *Excavations at Hacilar I–II*. Edinburgh: Edinburgh University Press.
- Mellink, M. 1965. Excavations at Karataş-Semayük in Lycia, 1964. *American Journal of Archaeology* 69, 241–251.
- Mellink, M. 1967. Excavations at Karataş-Semayük in Lycia, 1966. *American Journal of Archaeology* 71, 250–267.
- Mellink, M. 1969. Excavations at Karataş-Semayük in Lycia, 1968. *American Journal of Archaeology* 73, 319–331.
- Mellink, M. 1970. Excavations at Karataş-Semayük in Lycia, 1969. *American Journal of Archaeology* 74, 245–259.
- Munsell, A. 1975. *Munsell Soil Color Charts*. Baltimore: Macbeth, Kollmorgen Corporation.
- Peet, T.E. 1909. Two Prehistoric Figurines from Asia Minor. *University of Liverpool Annals of Archaeology and Anthropology of the Institute of Archaeology* 2, 145–148.
- Pernicka, E. 1990. Gewinnung und Verbreitung der Metalle in prähistorischer Zeit. *Jahrbuch des Römisch-Germanischen Zentralmuseums Mainz* 37.1, 21–129.
- Renfrew, C. 1967. Cycladic Metallurgy and the Aegean Early Bronze Age. *American Journal of Archaeology* 71, 1–20.
- Roche, J. 1994. *The International Cotton Trade*. Cambridge: Woodhead Publishing.
- Seeher, J. 1987. *Demircihöyük. Die Ergebnisse der Ausgrabungen 1975–1978. Band III,1. Die Keramik 1*. Mainz am Rhein: Verlag Philipp von Zabern.
- Seeher, J. 2000. *Die Bronzezeitliche Nekropole von Demircihöyük-Sarıket*. Tübingen: Ernst Wasmuth Verlag.
- Streily, A.H. 2000. Early Pottery Kilns in the Middle East. *Paléorient* 26.2, 69–81.
- Thér, R., Kallistová, A., Svoboda, Z., Května, P., Lisá, L., Burgert, P., Bajer, A. 2018. How Was Neolithic Pottery Fired? An Exploration of the Effects of Firing Dynamics on Ceramic Products. *Journal of Archaeological Method and Theory* 26.3, 1–33.

Investigating the Early Bronze Age II settlement at Hacılar Büyük Höyük (Burdur, Türkiye)

- Umurtak, G. 2002. Some Observations on a Lead Stamp Seal from the Bademağacı Excavations. *Anatolica* XXVIII, 159–169.
- Umurtak, G. 2003. A Study of a Group of Pottery Finds from the MBA Deposits at Bademağacı Höyük. *Anatolia Antiqua* XI, 53–74.
- Umurtak, G. 2005. Çanak Çömlek. In Duru, R., Umurtak, G. (eds) *Höyücek. 1989–1992 Kazılarının Sonuçları*. Ankara: Türk Tarih Kurumu Yayınları.
- Umurtak, G. 2009. A Study of three numerical (!) Tablets and a Stamp Seal from the Early Bronze Age Settlement at Bademağacı Höyük. *Adalya* XII, 1–10.
- Umurtak, G. 2013. Some Comments on a Few Intriguing Seals Found in the EBA Settlements at Hacılar Büyük Höyük and a Seal from Burdur Museum. *Adalya* XVI, 49–59.
- Umurtak, G. 2019. Çömlekçilik. In Duru, R., Umurtak, G. (eds) *Bademağacı Höyüğü Kazıları. Neolitik ve Erken Kalkolitik Çağ Yerleşmeleri I*. İstanbul: Ege Yayınları, 32–66.
- Umurtak, G. 2020. Some Remarks on the Early Bronze Age I Defence System at Hacılar Büyük Höyük (Burdur, Turkey). *Bulgarian e-Journal of Archaeology* 10.1, 33–54.
- Umurtak, G. 2021. Evidence of Daily Life inside the EBA I Defence System at Hacılar Büyük Höyük (Burdur – Turkey). *Bulgarian e-Journal of Archaeology* 11.1, 33–57.
- Umurtak, G. 2022. From the Neolithic to the end of Early Bronze Age: Developments in the Construction of Entrance Gates and City Walls at Settlements in Burdur (Turkey) and the Surrounding Region. *Bulgarian e-Journal of Archaeology* 12.1, 1–28.
- Umurtak, G. 2023. Observations On Some Finds With Religious Symbolism From the Early Bronze Age I Settlement at Hacılar Büyük Höyük. *Bulgarian e-Journal of Archaeology* 13.1, 25–48.
- Umurtak, G., Duru, R. 2012. Hacılar’ın İkinci Höyüğünde Kazılara Başlandı. Hacılar Büyük Höyük Kazıları 2011. *Müze* 5, 45–48.
- Umurtak, G., Duru, R. 2013. Yeniden Hacılar. Hacılar Büyük Höyük Kazıları 2011–2012. *Arkeoloji ve Sanat* 142, 1–22.
- Umurtak, G., Duru, R. 2014. Hacılar Büyük Höyük Kazıları 2013. *Arkeoloji ve Sanat* 145, 1–20.
- Umurtak, G., Duru, R. 2016. Hacılar Büyük Höyük 2015 Yılı Kazılarının Sonuçları. *Arkeoloji ve Sanat* 151, 19–44.
- Yalçın, Ü. 1998. Frühe Eisenwendung in Anatolien. *Istanbuler Mitteilungen* 48, 79–95.
- Yalçın, Ü. 1999. Early Iron Metallurgy in Anatolia. *Anatolian Studies* 49, 177–187.
- Yalçın, Ü. 2005. Zum Eisen der Hethiter. In Yalçın, Ü., Pulak, C., Slotta, R. (eds), *Das Schiff von Uluburun-Welthandel vor 3000 Jahren*. Bochum: Deutsches Bergbau-Museum, 493–502.
- Yakar, J. 2016. Symbols and Abstract Motifs in Neolithic Art: More than just Fanciful Aesthetic Designs? In Yalçın Ü. (ed.) *Anatolian Metal VII, Anatolien und seine Nachbarn vor 10.000 Jahren*. Bochum: Deutschen Bergbau-Museum Bochum, 165–178.
- Yurtsever Beyazıt, A. 2019. Late Neolithic/Early Chalcolithic Period White on Red Paint Decorated Pottery Tradition at the Burdur-Antalya Region (Turkey). *Bulgarian e-Journal of Archaeology* 9.1, 23–43.
- Younger, J.G. 1987. A Balkan-Aegean-Anatolian Glyptic Koine in the Neolithic and EBA Periods, A paper read at the VIth International Aegean Symposium, Athens, Greece (unpublished).