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SOME OBSERVATIONS ON A LEAD STAMP SEAL FROM THE BADEMAĞACI EXCAVATIONS

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During the year 2000 excavations at Bademağacı Höyük a stamp seal was found in debris soil from a mixed context along with a group of finds, mainly belonging to the Middle Bronze Age, which included a "red cross bowl" and wheelmade, string cut vessels and bronze pins. Our interest was aroused by this lead seal because of the substance it is made of and also the striking nature of the motif on the stamp surface. The similarity observed between this seal and several other seals prompted us to examine the subject in more detail.

The Bademağacı seal has a stamp surface area 2 cm in diameter and 0.2 cm in thickness and a flat handle 1.4 cm in length (Fig. 1/a-b). The handle is behind the stamp surface of the seal, which is not in the centre but towards one edge, and there is a horizontal hole at the top of the handle. The motif of the stamp surface of the seal consists of a circle which is divided into four equal parts by a cross and in each of these sections there is a pair of everted chevrons, one inside the other and a small dot in the space in front of the chevron facing outwards.

It seems that the Bademağacı seal was made by first using a one-sided mould to form the stamp surface area. There is a mark from soldering or riveting at the point where the handle joins the seal. Looking at the sharp ridge in this section, it would seem that the handle was produced immediately after the first stage, also through pouring the substance into a mould, and that this protrusion was formed during the process[2]. The formation of the handle does not appear to have been very successful.

Although it is known that metal was used much less than stone and clay in the production of seals in prehistoric times, it is also likely that some of the metal seals did not survive until the present day. Apart from the one from Bademağacı (see Map), lead seals have so far been found in the late EBA II level at Karataş-Semayük, (Mellink 1969, Fig. 29 a-b)[3] and in level 12 at Alişar (Fig. 2/f; von der Osten 1937, Fig. 87/c576). A fairly close resemblance is observed between the motifs of the stamp surface areas of the seals from

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[3] A drawing is not given in the article and the photograph of the seal does not provide information on the motifs of the stamp area.

Bademağacı and Alişar. The Alişar seal has a short, broad handle. It is possible to add examples of seals made from other metals to this group. Seals with a circular stamp surface area include examples from Tarsus-Gözlükule EBA II (Fig. 2/g; Goldman 1956, Fig. 392/15), from Mersin-Yumuktepe XVII (?) – it could not be clearly determined which level this one belonged to – (Fig. 2/a; Garstang 1953, Fig. 70), Soloi-Pompeipolis (Fig. 2/h; Bittel 1940, Pl. VI/S 3394), Alaca Höyük (Güterbock 1966, Pl. 32/f 82),[4] and Dikmen Höyük (Fig. 2/c; Özgüç 1945, Fig. 2). Seals with a rectangular stamp surface include examples from Alişar 13 (von der Osten 1937, Fig. 87/c 1481) and Poliochni XIV (Fig. 2/b; Bernabò-Brea 1964, Pl. CLXX/4; CLXXV/1. group); the motifs of the seals have common characteristics. In this group, the seals from Poliochni, Dikmen Höyük and Tarsus-Gözlükule are bronze, the seal from Soloi Pompeipolis is arsenical copper, the Alişar and Mersin seals are copper and the Alaca Höyük seal is made of iron (?) (*ibid*).

There is a main motif common to the stamp surface of all the seals listed above. According to H. G. Güterbock, the lines that form the motif on the stamp surface of the Alaca Höyük seal resemble fishbones and the seal has a small handle. Apart from Alaca Höyük, there are no other examples with lines drawn in the form of fishbones. The seals from Dikmen Höyük, Mersin-Yumuktepe, Tarsus-Gözlükule and Soloi-Pompeipolis are long, and the Poliochni seal is small and cylindrical and has slanted handles; in this way these seals differ somewhat in shape from the lead seals of Bademağacı and Alişar.

The bronze seal from the MBA cemetery at Sarıket (Fig. 2/d; Seeher 2000, Fig. 64/h) and the Thermi seal, which is described as being either copper or bronze (Fig. 2/e; Lamb 1936, Fig. 50, Pl. XXV) have a cross-shaped motif with other motifs in the symmetrical areas around it on their stamp surfaces and in this way show some similarity to the seals mentioned above.

An important group of finds to be taken into consideration when examining metal seals are the stone moulds. Close similarities with the stamp surface of the Bademağacı seal have been observed in the moulds from Abu Habba (Fig. 3/a; British Museum No. 91902), and Akhisar (Fig. 3/b; Louvre Museum AO. 1526), It can be seen from the Akhisar (Fig. 3/c), Lipchitz (Fig. 3/d), and İzmir (Fig. 3/e) moulds that the motif concerned was usually used on seals with a rectangular stamp surface (Canby 1965, Pl. IX/d, X/a; Emre 1971, Pl. I/2, I/3, II/1, III/1; Fig. 11).

The fact that seals with very similar stamp surfaces have been found in different moulds would indicate that these seals were mass produced. Stone moulds were used in the production of items such as earrings, pendants, pins, amulets and figurines as well as seals. It is significant that there are no tools or functional items among these very attractive small decorative or symbolic objects. The discovery of metal seals with the same motif on their stamp surfaces over a very wide geographical area from Poliochni to Gözlükule and from Bademağacı to Alişar can be explained by the widespread use of these small moulds. J. V. Canby suggests that travelling metallurgists may have carried these small moulds with

[4] Güterbock does not mention which level the seal belongs to, but the photograph of this object is published with the Hittite seals (*ibid.* p. 104).

them, which would not have added a lot of extra weight, and produced items according to orders made at the places they visited (Canby 1965, 52 f. "portable trinket factories"). The Bademağacı seal would lead us to think that these travelling metallurgists may have preferred to use lead rather than more expensive metals. As it melts at 327.4 C°, lead is one of the easiest metals to work and it is known that lead ore (galena) melts at a temperature lower than 800° C (Renfrew 1967, 4; Tylecote 1976, 168). According to R. F. Tylecote, lead can even be melted in a camp area in a fire lit within a circle of dry stones (Tylecote 1962, 76). In addition to this, the acceptance of lead by ordinary people as a metal of lower value and cost has already been mentioned by various researchers (Emre 1971, 81).

Several similar seals made of clay rather than lead have been found in recent years in the EBA II levels at the Bademağacı Excavations (Fig. 3/f-h). Although of less value, people not able to afford metal seals must have obtained duplicates of these seals made of clay, stone or bone and it can be concluded that in the production of these seals the repetition of the motives was more important than their shape or form. This factor can be observed in examples from centres in different cultural regions of Anatolia such as Karataş-Semayük EBA (Mellink 1965, Pl. 64/37 a-b; 1967 Pl. 84/56), Çukurkent (Mellaart 1954, p. 184/91), Kusura B (Lamb 1937, Fig. 12/18-20), Ahlatlıbel (Koşay 1934, p. 71/Ab.30), Etiyokuşu (Kansu 1940, Fig. 78-79), Karaoğlan (Alkım 1968, Fig. 58), Alişar 12, 13 (von der Osten 1937, Fig. 87/e 1909, c 481), Tarsus-Gözlükule EBA II, MBA (Goldman 1956, Fig. 392/7, 393/27), Aslantepe VI (Palmieri 1969, Fig. 30/2) and Tepecik EBA II (Esin 1972, Pl. 109/3-4). In addition to these examples, it is not possible to separate from this group four seals made of steatite that were purchased from Aleppo, İzmir, Antioch (Antakya) and Ephesus and are now in private collections abroad (Hogarth 1920, Fig. 126-128, 216). The motif being examined here is also seen on the pendant of a stone mould of unknown origin (Fig. 3/i; British Museum No. 117717; Emre 1971, Pl. II/5) and on a golden button (?) (Fig. 3/j) and an object in the shape of a bobbin (Fig. 3/k), both found at Troy (Schmidt 1902, no. 6434; no. 8444). It also appears on a bronze pendant found in the debris on top of the Hittite defence wall ruins at Boğazköy (Fig. 3/l; Boehmer 1972, Fig. 17/a; Pl. I/6).

Although this motif has no direct or chronological connection with that of the Bademağacı seal, there are examples of it in much earlier periods and in different regions. Enver Bostancı compares the cross-shaped motifs seen in the Beldibi cave paintings (Bostancı 1959, Pl. I) with some examples from France and Spain, belonging to the Neolithic Period and earlier, and suggests that these depictions sometimes symbolise man and sometimes symbolise the sun (*ibid*, 133). The cross motif with three-pointed ends like a fork seen in the wall paintings from Level VI at Çatal Höyük is considered to be some kind of astral symbol (Mellaart 1963: Pl. VIIIb). Although the motif seen on the Bademağacı seal also appears on seals from Tepe Gawra XI-XII (Wickede 1990, Fig. 34/7; Fig. 253a-b, 262), Farukābād B (*ibid.* Fig. 511) and Susa A (*ibid.* Fig. 522-525) at a considerably earlier date, it is not possible to speak of any connection between the two groups. According to B. L. Goff, some of the preferences of the Ubaid artisans are reflected in the seals of the Gawra Period; the spaces of the circle motif divided into four were sometimes filled with

chevrons and the use of this kind of motif continued with variations (Goff 1963, 128, Fig. 498).

The motif being examined also appears on the stamp impressions of some cylinder seals of Old Assyrian and Old Syrian style from level II at Kaneš Karum (Fig. 4/a-b; Özgüç 1989, Pl. 86-87/5, 96-97/7). In these examples the motif appears inside an astral disk with a crescent, which is placed in line with the head of a seated figure of a god being worshipped. There seem to be many variations of the motif between the impressions of the Kültepe 'Anatolian Group of Cylinder Seals' (Özgüç 1965) and the Konya Karahöyük stamp seals (Fig. 4/c-d; Alp 1972, Fig. 144-147). Nimet Özgüç says that "with the star remaining the main motif, astral disks filled with various designs show great resemblance to those of the stamp seals widely used in Anatolia before the Assyrian Trade Colonies" and suggests that the stamp seal motifs represent astral symbols (Özgüç 1965, 33). A similar motif is found among Hittite seals (Fig. 4/e; Seidl 1972, Fig. 4/A43, A44, 5/A45).

Another similar motif to the one on the Bademağacı seal comes from the Cyclades. This stamp-cylinder seal made of green stone (Renfrew 1967, Lev. 4/19) was found in Kapros grave D on the Amorgos Island. The design on the cylinder part of this seal is a series of single centred circles with chevrons between them. The stamp surface underneath the seal is very similar to our examples. Colin Renfrew says that this motif is seen on Minoan seals and on Keros-Syros pottery (*ibid.* 7).

Even though the motif being examined is not as widespread as the "swastika" (Black-Green 1992, 171), the extensive use of it over a very long period in geographical regions distant from one another in the Near East indicates that this was not a personal or regional symbol but a universal astral symbol. This theme was small enough to portray in the limited area of the stamp surface and was also an easy design to execute.[5] This association challenges the theory that these seals were used to indicate possession of personal property; instead of this, it is possible to assume that these seals were stamped onto communal goods not made of resilient materials and the stamps did not therefore survive to the present day (Umurtak 2000) and that, in addition to this use, seals were also made as a kind of amulet for people to carry.

Considering the architectural levels where clay parallels to the lead seal from Bademağacı were found, it appears that seals with this kind of stamp surface first began to be used in the same settlement in level 3 dating to EBA II (Duru 2000, 189 f.). As at Bademağacı, one of the seals at Alişar is made of lead and the other is copper and the motifs of these seals closely resemble our example; an examination of these seals and the other finds of this level should help in the establishing of an accurate stratigraphy for Alişar and put an end to the controversy over the terminology. Among the other examples of this group there is a seal from Dikmen Höyük, which is a surface find dated by Tahsin Özgüç to the second half of the 3rd millennium BC (Özgüç 1945, 291). According to Kurt Bittel, the Soloi-Pompeipolis seal belongs stylistically to the early centuries of the 2nd millennium (Bittel 1940, 211-212). There are some dating problems related to the seal found in the

[5] It is not easy to say that the motif being examined here is in anyway related to the "signe royal".

debris of level XVII at Mersin-Yumuktepe, as John Garstang explains (Garstang 1953, 108) – this seal may have come from the soil of later levels that may have become mixed with this level during the excavations. We think that although the motif on the stamp surface of this seal is seen in Mesopotamia before the 3rd millennium BC, the substance it is made of and its shape indicate that it should be examined together with other examples of metal seal groups. The Amorgos seal, which has a similar stamp surface to the Bademağacı example, was compared by Henry Frankfort to seals from the Jemdet Nasr Period (Frankfort 1939, 70, 301), but Colin Renfrew thought it should be dated to the end of EBA, to around 1900 BC (Renfrew 1967, 7). Although the shape of the Amorgos seal resembles the stamp-cylinder seals of the Tyskiewicz group (Alexander 1973), the motif on the stamp surface leads us to accept the dating suggested by C. Renfrew.

The *terminus post quem* of the metal seals, and the seals made of clay, stone and bone with similar stamp surfaces from various regions of Anatolia geographically distant from one another, can be estimated as the second quarter of the 3rd millennium BC; it appears that the use of this motif continued throughout the 2nd millennium with some small alterations. This assessment generally complies with the dating previously assigned to the stone moulds (Emre 1971, 50). The "red cross bowl" and the wheelmade pottery that were found in the debris soil together with the lead seal at Bademağacı must belong to an as yet unknown settlement, the architectural remains of which have not yet been determined. We think that this settlement and the finds that belong to it should date to the period from around the end of the 3rd millennium to the beginning of the 2nd millennium. The form of the Bademağacı "red cross bowl" does not resemble the examples from the extensive distribution area of these bowls in Anatolia and the Aegean (Korfmann 1983), for example Beycesultan level VII and VIa (Lloyd-Mellaart 1962, Fig. P.57/26,31; P.64/23, 26) and Troy V (Blegen and others 1951, Fig. 240/32.69, 33.527; 246). The parallels in form to the Bademağacı vessel are found at Beycesultan levels VIa (Lloyd-Mellaart 1962, Pl. P.64/3) and V (Lloyd-Mellaart 1965, Fig.P5/10) among the monochrome wares. This situation complies with the dates we have suggested for the Bademağacı lead seal.[6]

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[6] I thank Miss Angela Bell MA for translating this article into English.

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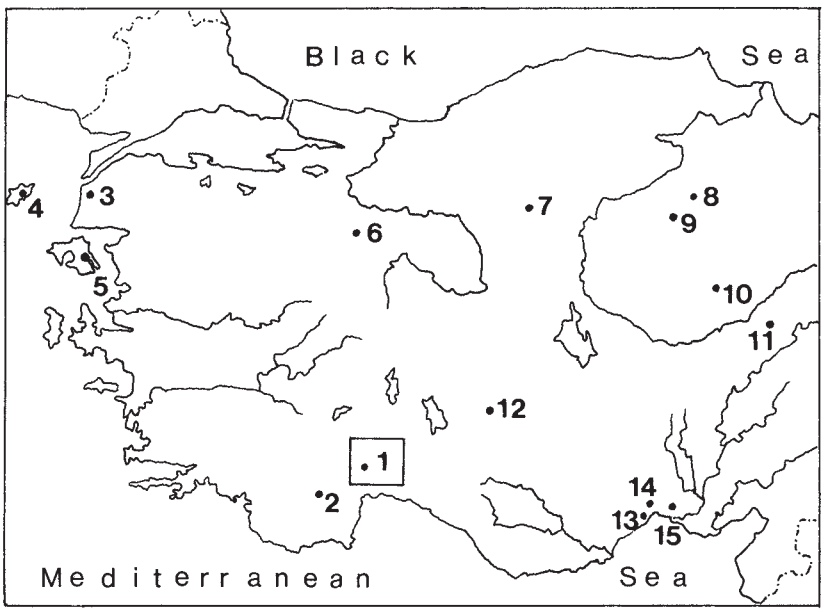


1- Bademağacı, 2-Karataş-Semayük, 3-Troia, 4-Poliochni, 5-Thermi, 6-Sarıket-Demircihöyük, 7-Dikmen Höyük, 8-Alaca Höyük, 9-Boğazköy, 10-Alişar, 11-Kültepe, 12-Konya-Karahöyük, 13-Soloi-Pompeipolis, 14-Mersin-Yumuktepe, 15-Tarsus-Gözlükule

Fig. 1.

Fig. 2.

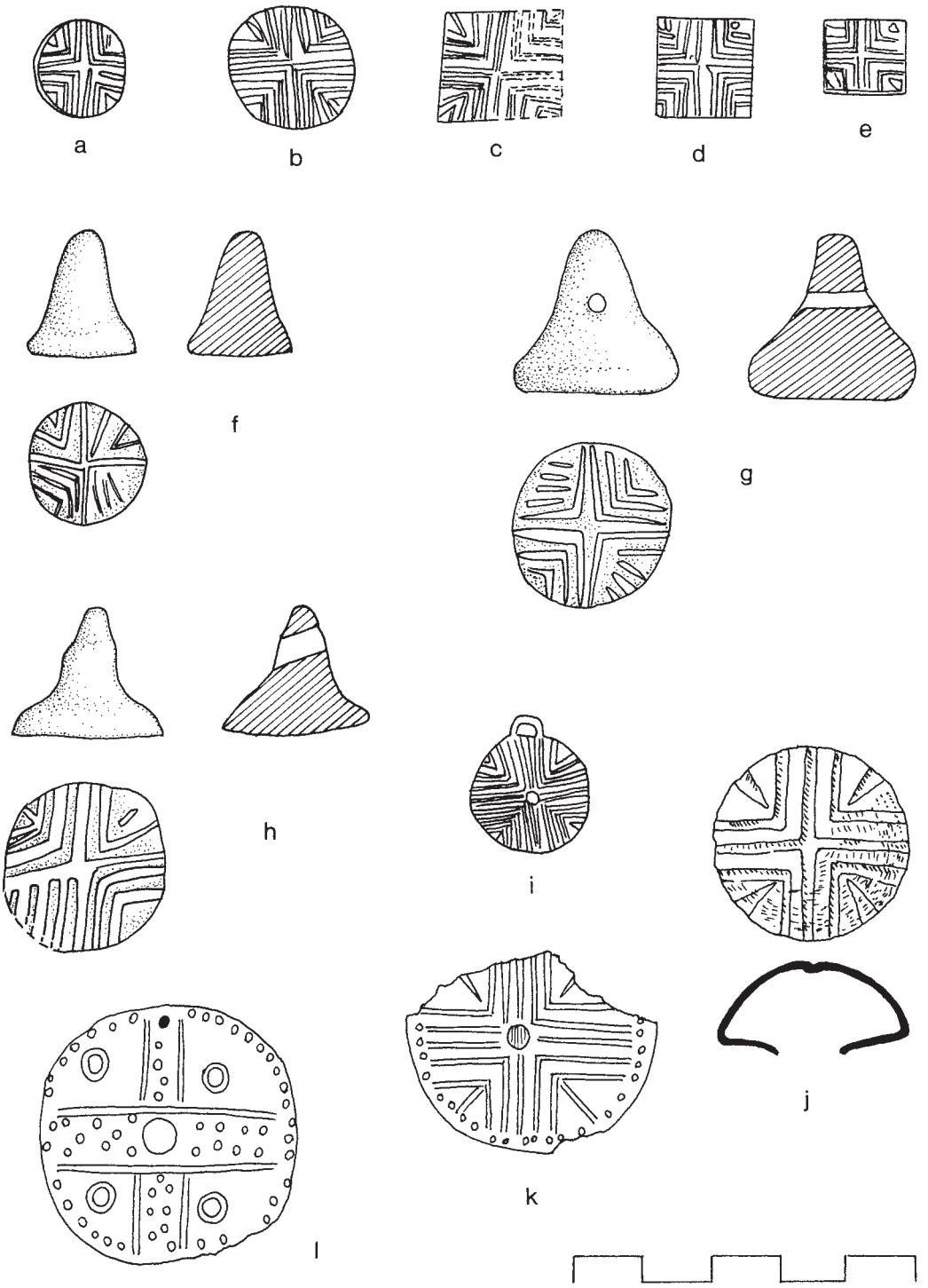
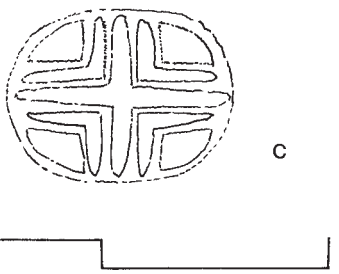


Fig. 3.

a

b



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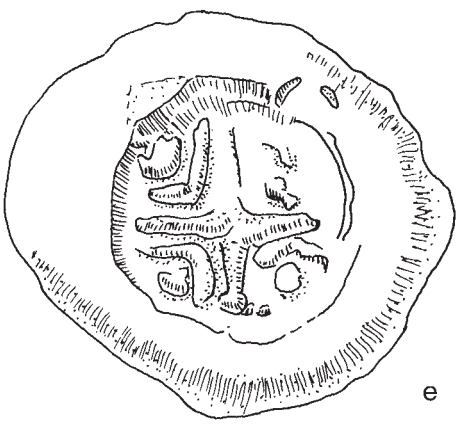

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Fig. 4.