

## REPORT ON A WORK-SHOP BELONGING TO THE LATE PHASE OF THE COLONY PERIOD (Ib)

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Among all the various structures that we investigated in the karum of Kaniş we found in squares Z-aa/26-27 a badly disturbed workshop belonging to level Ib (Fig. 1-3). Although it was impossible to make an exact plan of the building because of its insufficient preservation, we could determine the main features of the construction and, by an examination of the moulds, the nature of the tools that were cast there. The technique of the foundation stones and of the masonry and the plan of the building are similar to those of other Ib buildings. The foundation is raised by one course of stones above the floor level, the mud-brick wall beginning at this point. The technique of the masonry of the wall running north-south in Z-aa/27 is different from that of the others (Fig. 3). This wall must have been added later. From room No. 1 (dimensions  $2.70 \times 2$  m.) one passes, through a well-made door of 1 m. width (Fig. 1-2), into the considerably more disturbed room No. 2. The fireplace in this room, which is made of flat bricks and represents a new type, is built adjoining the wall (Fig. 2). The two remaining portions of walls in aa/26 show the extension of the building towards the east and that it must have opened on the street of which some paving-stones are preserved (Fig. 3). The room No. 3 has not yet been completely investigated. Large vessels with thick walls, some of them with, others without handles, were found in rooms 2 and 3 either on the floor or partially buried (Fig. 1, 3 and 36-37), small vessels mostly in room No. 1, a few in room no. 2, while melting-pots and moulds were found in both these rooms.

In the workshop we discovered 14 moulds, 8 of them being made of stone and 6 of clay. The longest one of the stone moulds is 27.5 cm. long, the shortest one 8.5 cm.; most of these stone moulds are broken. Some of them have 6 or 4 faces that were used as moulds, others 3, 2, or 1 face. It is apparent that all of them were used for

a long time in the manufacture of tools, since the stones have been damaged by the molten metal. We will here discuss briefly the most important of them. In spite of the great wealth of metal tools found in the karum, some of the tool types of the moulds are, up to this time, without parallel. The first of the new types is represented by a 25 cm. long flat-axe (*Flachbeil*) mould (Fig. 5a, 19). These axes were widely used in Anatolia<sup>1</sup> and other Near-eastern regions<sup>2</sup>. There is a smaller mould for the same type of axe on the same stone (Fig. 5c). Again on the same mould we find a spearhead of a form not everywhere current in this period (Fig. 5b, 17). Its head is triangular, its shaft long and broad. The mould of a T-shaped tool reminds us of a small hammer-axe with metal shaft (Fig. 6a, 9). Two moulds for lugged axes (*Ärmchenbeil*), one large, one smaller (Fig. 5c, 6b, 11, 18), represent companion pieces to an otherwise unique bronze axe<sup>3</sup> of level Ib (Fig. 20). These are the oldest specimens of this type in Anatolia, no similar ones having so far been found in levels II-IV of the karum. The shapes of the dagger (Fig. 6c-ç, 10) and armring moulds (Fig. 7, 12-13) and of the moulds for disk-shaped objects (Fig. 6ç, 15) which, when made of lead, served as weights, are familiar to us from many bronze and lead finds. A mould for the manufacture of ear-rings with one or two rings is worked only on one face (Fig. 8, 14, 16). The largest one of the moulds was found at the foot of a wall and was, unlike the others, not intended to be moved (Fig. 4). This clay mould served for the manufacture of long and thin metal spikes. Together with the moulds we found many melting-pots with small pouring-spouts (Fig. 26-27). Green metal rests can still be seen in these pots. In the light of the finds there can be no doubt that the caster who owned the workshop made the tools discussed above with the intention of selling them. We see from the great quantity of flat axes (*Flachbeil*) made of green stone that the same artisan also made stone tools for sale, since the number of these axes far exceeds that which would suffice for one house-hold (Fig. 21-24).

<sup>1</sup> K. BITTEL, *Prähistorische Forschung in Kleinasien, Istanbul 1934*, Pl. 19, 14-15 and *Bellesten 46*, Fig. 36 (H. KOŞAY and M. AKOK). The Kaniş examples are flat axes; we therefore feel reluctant to describe them as *chisels*.

<sup>2</sup> *Iraq IX*, 2, 1947, p. 169, Pl. 31,9 (M. E. L. MALLOWAN).

<sup>3</sup> TAHSİN ÖZGÜÇ ve NİMET ÖZGÜÇ, *Küllepe Kazısı Raporu 1949*, Ankara 1953, p. 195.

Besides previously known types of pottery, new ones were also encountered in this workshop. The most important of these are: a pinkish-red slipped vase with three feet (Fig. 33); a dark-red slipped jug with its spout on the handle (Fig. 32); a large bowl with one handle (Fig. 28); a light-brown slipped big-spouted jug with long base, two handles, and sieve (Fig. 31); and a dark-brown slipped jug with a clover-leaf orifice, thick walls and a peculiarly shaped body (Fig. 34). A large, not very well finished bowl with thick walls and a hole near the base must have been used for casting (Fig. 25). We discovered also 6 vessels with two handles and similar shapes of a type characteristic for level Ib (Fig. 29-30, 35) and not found in level II. On their shoulders there are, in symmetrical arrangement, either some stamp seal impressions or signs in relief in groups of 1-3. One of the vessels is stamped with a large *signe royal* motif (Fig. 29). As we know, this motif is found in the krum in level Ib only on pottery<sup>4</sup>, while in level II it is never encountered on pottery. However, Dr. NİMET ÖZGÜÇ informs us that the *signe royal* motif occurs in cylinder seal impressions of native style belonging to level II. Another important feature of this vessel is the presence on the outside and inside of small lead plates held in place by nails put through small holes at the lower end of the handle (Fig. 30, 35). The plate on the outside is stamped with a seal impression the motif of which can to-day no longer be recognized. We have no doubt that this is a *bulle* in the exact sense of the word. This type of *bulle* is encountered also on storage vessels in Ib houses.

We have endeavoured in this short communication to present the contents and construction of a workshop. If we remember the important place occupied by metals and metal objects in the written documents of Kaniş, we can have little doubt that future excavations will bring to light other better-preserved workshops. The building we have discussed is not merely a shop and a working place; it also served as a dwelling for the artisan and his family. It is similar in this respect to the archives and other buildings with a special purpose of both levels Ib and II, in all of which people were living.

<sup>4</sup> *Küllepe Kazısı 1949*, p. 160, 181; and TAHSİN ÖZGÜÇ, *Küllepe Kazısı Raporu 1948*, Ankara 1950, p. 175.

The casting operations must have been carried on in room No. 2, which contains the fixed mould and the fireplace.

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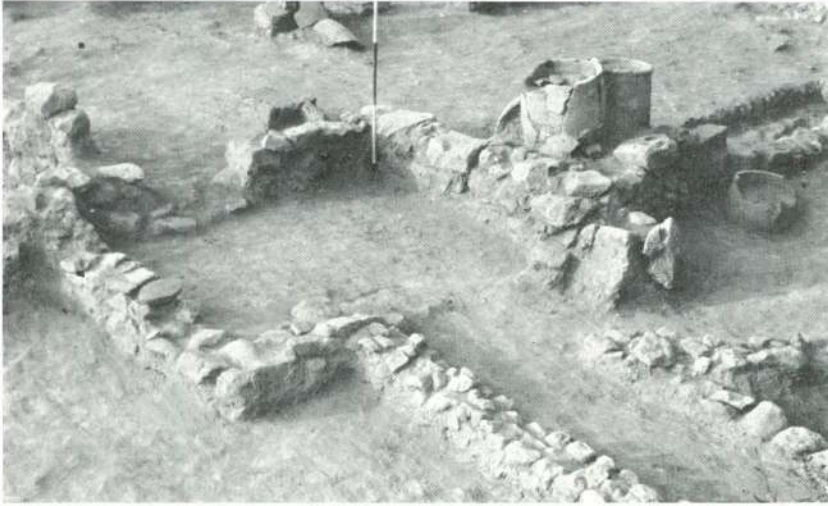
Although it does not belong directly to the workshop under discussion we think it appropriate to publish here also a bronze-sickle found in 1954 in square V/23 (Fig. 38a). This find, which has parallels only in level Ib of Kaniş, is a sickle-shaped hand-weapon<sup>5</sup>. The sickle is 16 cm. long, and a 2.4 cm. wide, and its handle is curved like that of all other specimens of its kind. On the broad part near the handle and towards the upper edge there is an X sign in a square (Fig. 38b). The shape of the sickle is the same as that of the sickle found in Boğazköy<sup>6</sup>, and the location of the signes on these two sickles is also identical. Although it does not fall into our province to establish whether the sign on the Kaniş sickle is a hieroglyph, we believe that it may represent a new hieroglyphic sign. Whether it is the sign of the artisan or of the owner of the sickle cannot be established with certainty at the moment<sup>7</sup>. The sickle may thus be one of the ever-increasing number of documents found especially in Kaniş, which prove the use of hieroglyphic writing in the Ib period, i.e. in a period contemporary with *Shamshi-Aadad I*<sup>8</sup>.

<sup>5</sup> T. ve N. ÖZGÜÇ, *Kültepe Kazısı 1949*, p. 195, and *Belleten* 71, p. 390.

<sup>6</sup> BITTEL - GÜTERBOCK, *Boğazköy I*, 1935, p. 32, Pl. 12, 11 and 74; BOSSERT, *Ein hethitisches Königssiegel*, Berlin 1944, p. 242.

<sup>7</sup> BITTEL - GÜTERBOCK, p. 32.

<sup>8</sup> *Belleten* 71, p. 380.



Res. 1 — Fig. 1



Res. 2 — Fig. 2



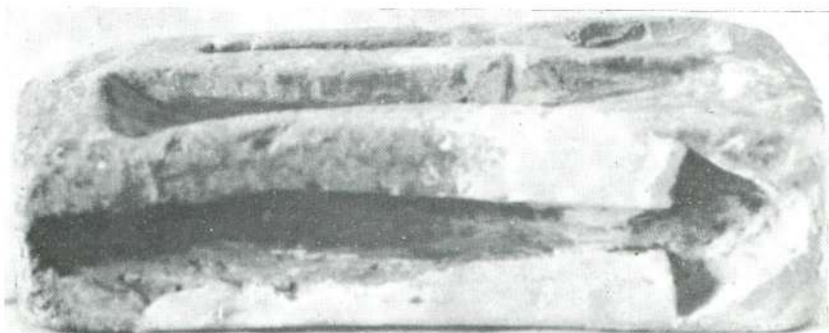
Res. 3 — Fig. 3



Res. 4 — Fig. 4



Res. 5<sup>a</sup> — Fig. 5<sup>a</sup>



Res. 5<sup>b</sup> — Fig. 5<sup>b</sup>

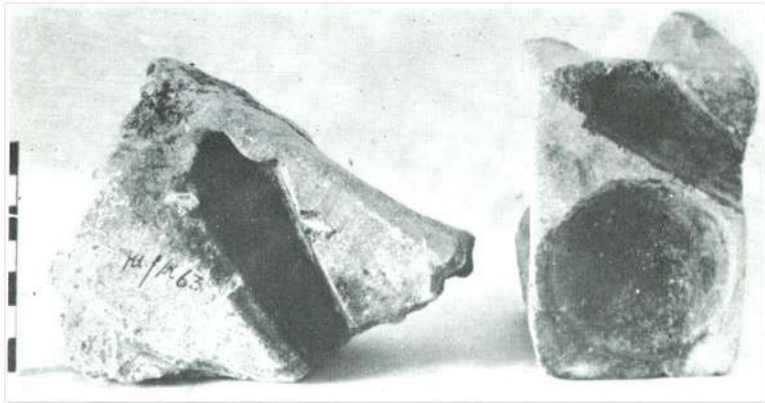


Res. 5<sup>c</sup> — Fig. 5<sup>c</sup>



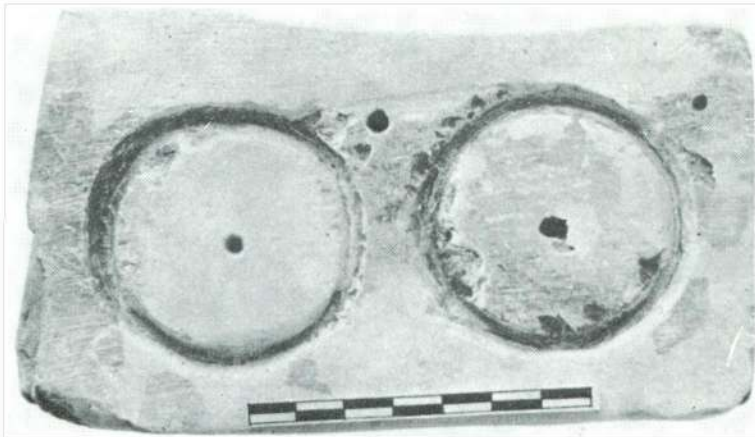
Res. 6a — Fig. 6a

Res. 6b — Fig. 6b



Res. 6c — Fig. 6c

Res. 6c — Fig. 6c

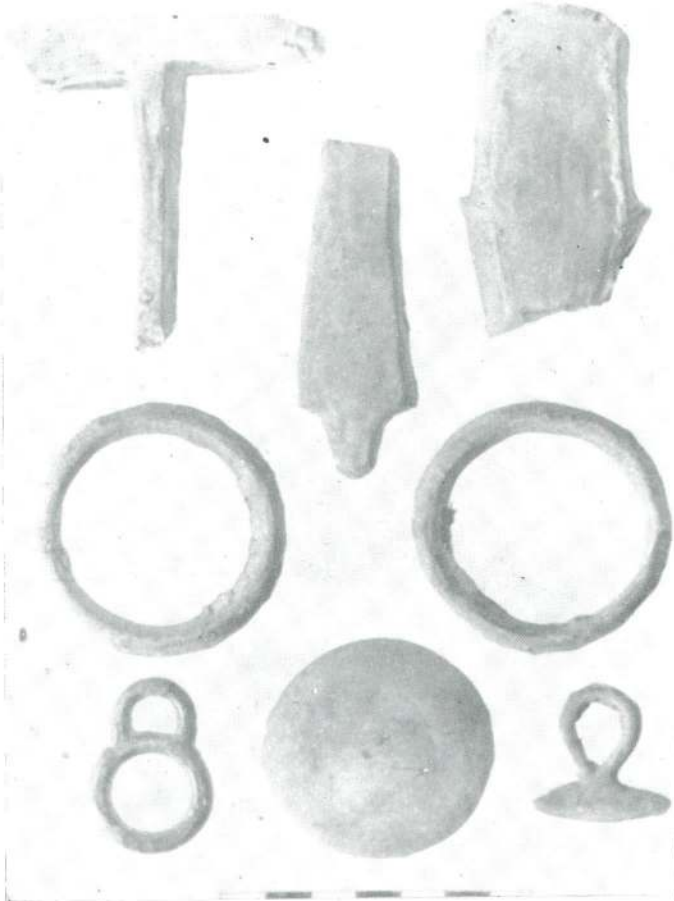


Res. 7 — Fig. 7

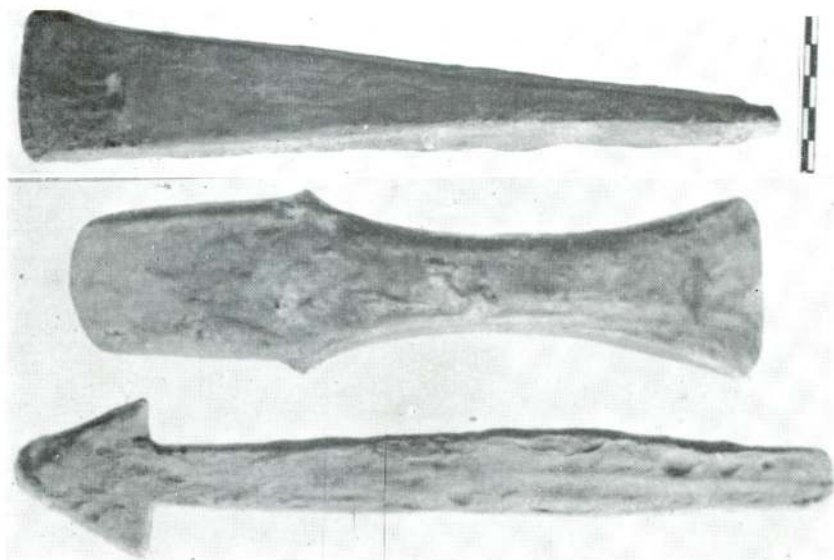




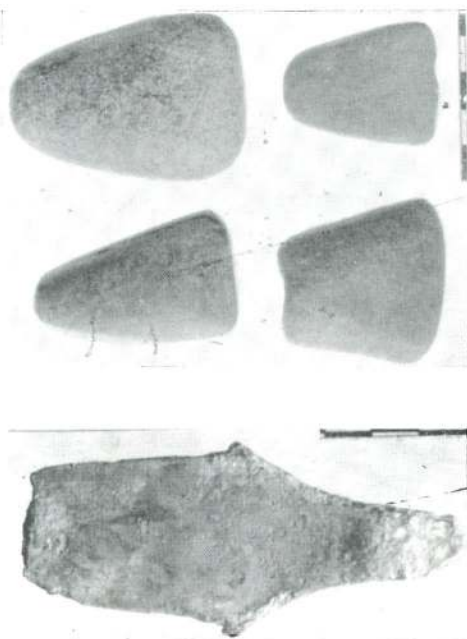
← Res. 8  
Fig. 8



← Res. 9 — 16  
Fig. 9 — 16



Res. 17 - 19 — Fig. 17 - 19



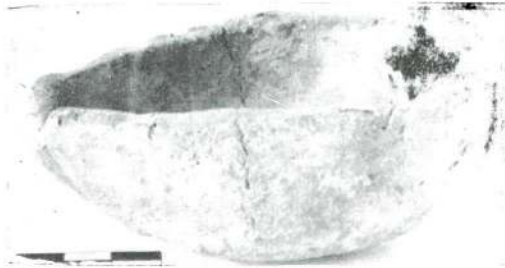
Res. 20 — Fig. 20  
Res. 21 - 24 — Fig. 21 - 24



Res. 25 — Fig. 25



← Rs. 26  
Fig. 26



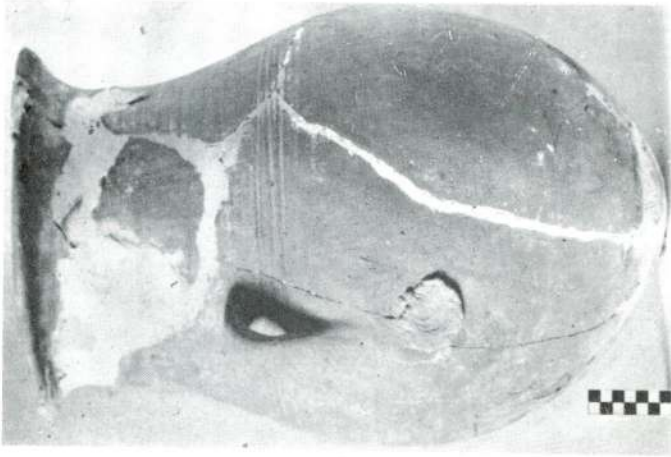
← Rs. 27  
Fig. 27



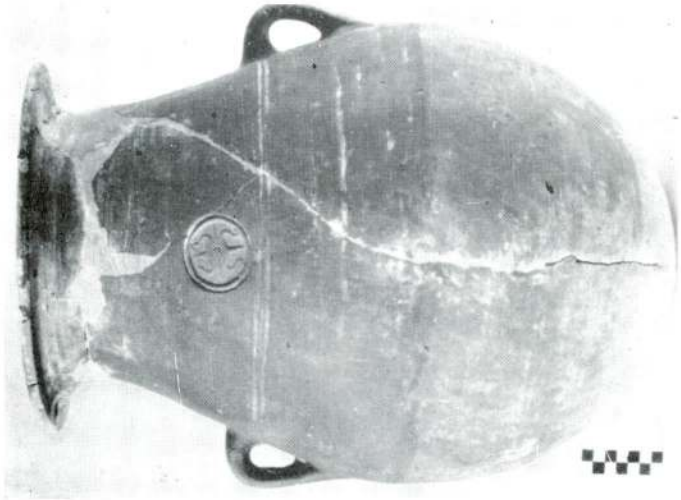
Res. 28 — Fig. 28



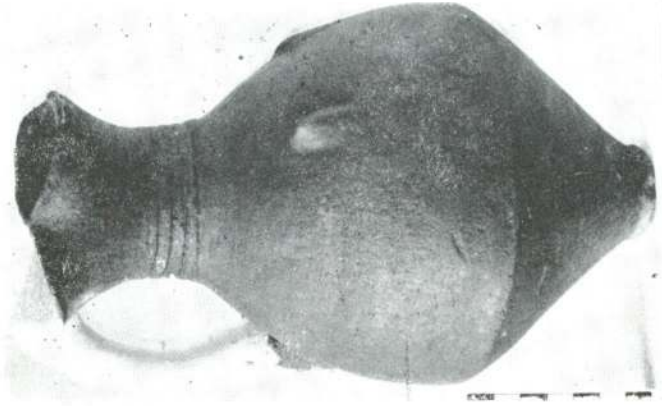
Res. 31 — Fig. 31



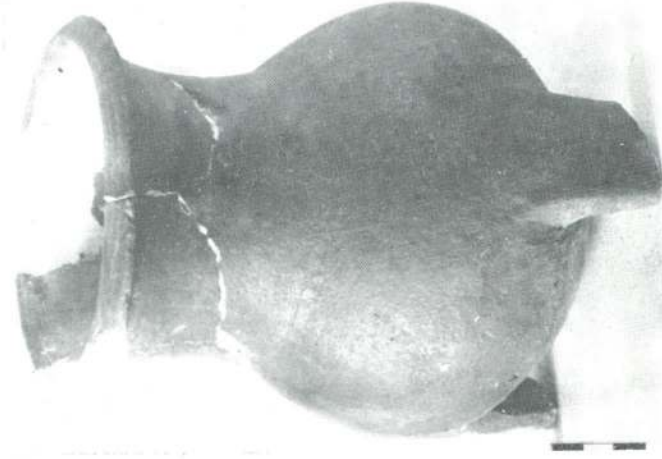
Res. 30 — Fig. 30



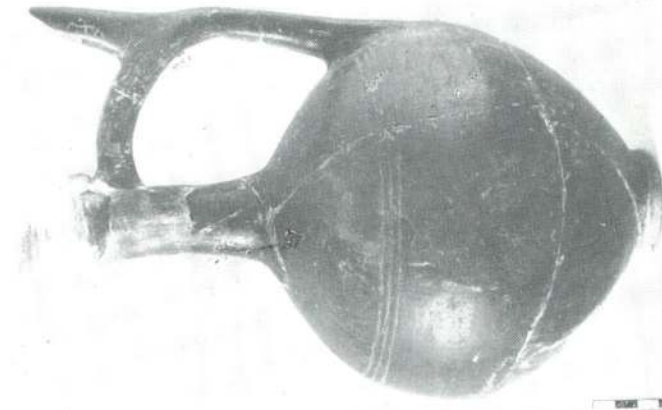
Res. 29 — Fig. 29



Res. 34 — Fig. 34

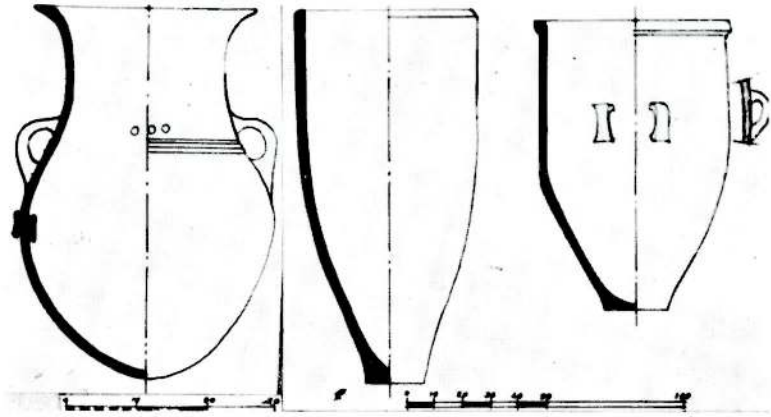


Res. 33 — Fig. 33

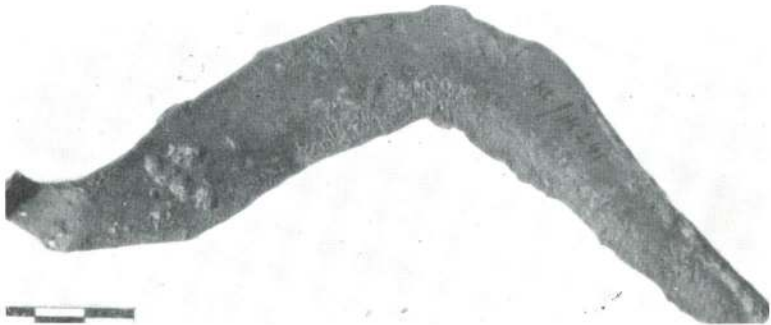


Res. 32 — Fig. 32

*T. Özgüç II.*



Res. 35 - 37 — Fig. 35 - 37



Res. 38a — Fig. 38a



← Res. 38<sup>b</sup>  
Fig. 38<sup>b</sup>