

The stone axes of Troy

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Schliemann mentioned in his work *Ilios* that he found “more than five hundred stone axes in the four prehistoric cities of Hisarlik” (Schliemann 1880, 238). By “stone axes” Schliemann meant various types of ground stone axes, both those with bored shaft holes for handles and those without shaft holes. He also included so-called axe-shaped hoes and hammers. Heubert Schmidt published a catalogue of the Schliemann Collection in 1902, and in the same year Dörpfeld published *Troja und Ilion*. Schmidt’s catalogue includes not only the finds by Schliemann, but also Dörpfeld’s finds in his two excavations after Schliemann’s death. According to this catalogue, the quantity of the stone axes consists of 413 samples, including about 90 fragments, i.e., about one hundred less than Schliemann counted. It seems that Dörpfeld eliminated unsuitable samples when he arranged and classified the finds. Therefore, we should correct the quantity of the stone axes and say that more than four hundred stone axes were uncovered in the four prehistoric cities of Hisarlik as a result of the excavations by Schliemann and Dörpfeld.

I would like to speak a bit more about the quantity of the stone axes. Among the 413 samples, the axes without shaft holes number 187, and those with shaft holes number 220, including 90 fragments. A general theory is that axes with drilled shaft holes for handles belong to the Bronze Age and most of axes without shaft holes to the Neolithic Age (Tsountas 1908, 319-322).

Now I would like to discuss the stone axes of the Neolithic Age. I will concentrate on the very small stone axes illustrated in *Ilios* by Schliemann (p. 238, nos. 86 & 89, p. 445, nos. 666, 667, 671 & 677, and p. 579, no. 1288). They are arranged in order of their dimension, reconstructed according to the illustrations and the generally accepted tool types, namely the chisel (5), the adze (9) and the axe (9).

We must notice their dimension and shapes. The length of the smallest adze is 2.3 cm and the width is 2.2 cm. The shape is trapezoidal, the most typical

form of the adze of the Neolithic Age. The length of the smallest chisel is 2.8 cm and 1.4 cm wide. The shape is cylindrical, the most common form of the Neolithic chisel.

Very similar small trapezoidal adzes and cylindrical chisels occur in well-known Neolithic sites in Greece: the Franchthi Cave, Knossos, Nea Nikomeidea, Sesklon, Dimini and Achilleion. In Asia Minor, we can see similar examples in Hacilar and Mersin. Very small chisels are especially common among ground stone tools found in these Neolithic sites. They have also been reported in Thermi and Poliochni, two well-known Bronze Age sites, contemporary with Troy I and II. In Thermi and Poliochni a relatively large quantity of ground stone axes without shaft holes were uncovered together with very small trapezoidal adzes (Lamb 1936, pls. XLVIII - L, fig. 55; Bernabò -Brea 1964, pl. CLXXXVIII and pls. CLXXXIII-CLXXXVI).

There is no reason to doubt that very small stone tools were first replaced by metal tools when metal appeared: for instance, awls, drills, punches and chisels, as well as needles and small personal ornaments such as pins, beads and finger rings. They were easy to make, and economical in the early stages of the metal industry when metal was not abundant and the technique was primitive. It was much later that larger tools were produced in metal. This is confirmed by the well-reported finds in Troy I (Blegen *et al.* 1950, Troy I, 215 & 358), in Thermi (Lamb 1936, pl. XXV and fig. 49) and Poliochni (Bernabò - Brea 1964, 1-2, pls. LXXXVII & LXXXVIII).

The presence of very small stone chisels in Troy I, II and III, characteristic objects found in the Neolithic sites mentioned above, suggests that Hisarlik might have been inhabited at some point in the Neolithic Age. In the case of Knossos, two small chisels of this type were uncovered in Early Neolithic levels (A. Evans 1921, fig. 15 a-5, and J. Evans 1964, pl. 54-II & fig. 51-1). According to the first report of the excavations at the Franchthi Cave, about forty stone axes

were found in the Middle and Late Neolithic contexts, and among them there are several very small highly polished chisels of a similar type (Jacobsen 1969a, 371 and 1969b, 7). Two small samples from Achilleion are reported as relatively belonging to Phase IV (5900-5700 BC) and Phase II (6200-6100 BC) (Gimbutas 1974, fig. 6 and 1989, fig. 9.6-6 & 8). Several good examples were recovered in Sesklo from throughout the Neolithic Age, and in Dimini from the late Neolithic contexts (Tsountas 1908, Pl. 15-7 and Pl. 16-1 & 2). In Servia and Tsangli, small chisels were found in the Early Neolithic contexts (Heurtley 1939, Pl. IV 6-1; Wace and Thompson 1912, figs. 67 & 68). At Mersin in Asia Minor, one example of this type was recovered in Phase XXIX, c. 5000 BC, (Garstang 1953, 12) and in Hacilar two small chisels belong to Phase VI (5000 BC) and Phase II (5400 BC) respectively (Mellaart 1970, pls. CXV and CXVI b).

Schliemann might not have considered Neolithic habitation at Hisarlik, although he mentioned Neolithic ground stone axes, comparing the Trojan axes with those from Neolithic lake dwellings and those from Denmark.

Thirty-one stone axes without shaft holes were recovered in the first seven "cities" at Hisarlik in the excavations conducted by the University of Cincinnati. To our surprise two small chisels were uncovered in Troy V and VI, together with the smallest trapezoidal adze found in Hisarlik, which is only 2 cm long. They were considered, however, to be "survivals" from the Early Bronze Age because "some earth from the earlier layers was probably used to fill the footing trench" (Blegen *et al.* 1950, Troy III, 87).

On the basis of the pottery and the occurrence of metal objects, one copper pin and one needle on the native rock in the lowest stratum, the Cincinnati excavators assumed that from the beginning of the occupation of the site the use of metal was known, but that "there is no question of a Neolithic establishment here. Troy may be reckoned as definitively belonging to the Early Bronze Age", namely the period when both stone and metal were used together (Blegen *et al.* 1950, Troy I, 37). Such is the conclusion of the archaeological expedition at Troy by the University of Cincinnati in the 1930s. Does this mean that there is no possibility of a Neolithic trace at all in Hisarlik, even of seasonal or temporal occupation, even if there is no trace of houses belonging to a settlement?

According to a short article about the recent excavations at Hisarlik, which appeared in the German periodical *ZAK* (no. 23, 1989/1990 4), an earlier date of approximately 3500 BC, 500 years older than Troy I, has been given to the charcoal/ashes found on a rocky ledge south of the "Trench of Schliemann". "Troja Null" (Troy Zero) has been discovered at last!

Let us reconsider the very small chisels and adzes uncovered in Hisarlik and in the Neolithic sites of Greece and Asia Minor. The new evidence coming from the recent excavations may support the presence of Neolithic habitations at Troy.

Connecting this new evidence with the types of stone tools I have mentioned, we might expect much earlier traces of human activities on Hisarlik, although we have not yet found good enough evidence of ceramic materials to confirm this assumption. But it is noteworthy that some types of pottery that resemble those found at the Late Neolithic sites of Asea, Dimini, Chaeronea, Servia and Olynthos, were recovered in Troy by the Cincinnati excavations.

When, where and by whom were these small tools made? Were they made and used by the inhabitants of Hisarlik in the Neolithic Age? Were they brought to Hisarlik in the Early Bronze Age, Troy I, by the descendants of the Neolithic people, when they moved either from their home somewhere in the Troad or somewhere outside of the Troad?

The Troad has not always been the same, geographically and geologically. There has been a change of the sea-level since the last glacial age. A paleogeographical reconstruction of the topography of the Troad shows that the coastline of the Troad was already formed about 7000 years ago, more or less as it is today (Rapp and Gifford 1982, figs. 5 & 14). Another paleogeographical map shows the Troad about 4500 years ago, approximately the date of Troy I and II (Rapp and Gifford 1982, fig. 15).

As a whole, the Troad could have been a good place for small groups of people to live, i.e., it provides a good water supply from springs and rivers, alluvial lands for cultivation, hunting in the inland mountainous region, seafood resources in the sea and marine embayment and good stones for tools.

Besides Troy, there are several prehistoric sites in the Troad: Kum Tepe, Beşik Tepe and Han Tepe on the coast, and Hanay Tepe, Kara Tepe, Eski Hisarlik and Balli Dag further inland. Of these, Hanay Tepe

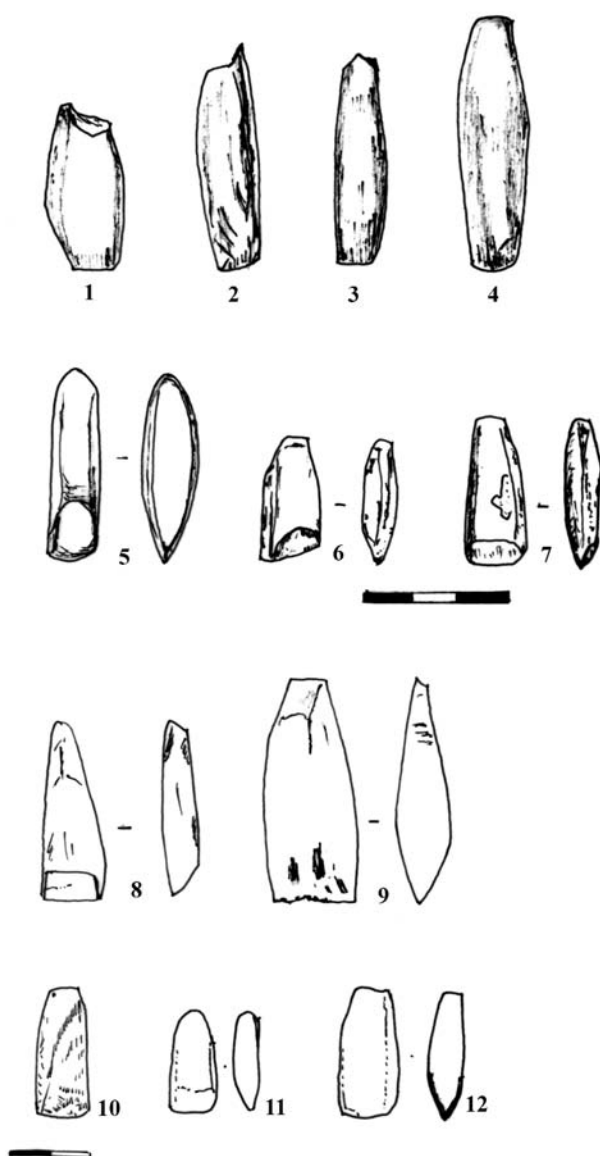


Fig. 1. Small stone chisels: (1-4) Troy, after Schliemann 1881, nos 87, 672, 88 & 673; (5) Knossos, after Evans 1921, fig. 15a-6; (6-7) Achilleion, after Gimbutas 1989, fig. 9.6-6 & 8; (8-9) Sesklo, National Archaeological Museum (Athens), case 34 & 49, 6002; (10) Mersin after Garstang 1953, 12; (11-12) Hacilar, after Mellaart 1979, fig. 169, 1 & 6.

was twice excavated by Calvert in the 1850s and 1876-1878 (Schliemann 1880, 706-719). Examining the finds from Hanay Tepe, W. Lamb supposed, based mainly on the pottery, that the town site might have belonged to the Early Bronze Age. In Hanay Tepe, two very small adzes were uncovered together with three axes and one fragment of a battle axe with a shaft hole, as well as flint, chert and obsidian tools. But no small chisels were found (Lamb 1932, III-131, fig. 7-6 & 7). In

	no.	Length	Width (cm)
Chisels	87	2.8	1.4
	672	3.4	1
	88	3.4	1
	673	4.2	1.4
	674	4.2	1.8
Adzes	676	2.3	2.2
	86	2.3	2.7
	677	2.6	2.9
	1278	2.6	2.9
	666	2.7	2.05
	1288	3.1	2.4
	667	3.1	2.65
	675	3.6	3.9
	1277	3.8	2.8
	89	4.2	3.6
Axes	10	4.9	2.5
	671	5.4	3
	1280	5.6	3.6
	1276	5.6	3.8
	1279	6.4	3.7
	669	6.5	3.4
	668	6.8	4.4
	1281	6.9	3
	670	7.2	3.9
	85	15.1	5.8

Beşik Tepe, several types of pottery were found and Lamb assumed that burnished wares might have belonged to the Late Neolithic or the Early Bronze Age. Considering the topographical position of the site, she also supposed that Beşik Tepe might have had connections with somewhere outside the Troad because burnished wares occur also in Crete, Samos, Thessaly and Macedonia (Lamb 1932, 124-129).

The absence of domestic tools and objects, such as spindle whorls, saddle querns, flint, chert and obsidian tools and stone axes suggests that Beşik Tepe, located on the shore, might have been a temporal or seasonal camp for marine resources or for another transient purpose; for instance, as an occasional port for prehistoric traders. Some other sites on the coast in the Troad could have been occupied for similar purposes for a short time.

It has been assumed since the excavations at Kum Tepe by Sperling in 1934 that the settlement of Kum Tepe was part of a movement of people into the Troad about 3200 BC, 200 years earlier than Troy I. It is then believed the people of Kum Tepe moved on to

Hisarlik in about 3000 BC, approximately the date of Troy I because “Kum Tepe failed to provide the kind of security offered by the new settlement Troy” (Sperling 1976, 355-357).

From these sites around Troy in the Troad, Kum

Table 2. Stone Axes without shaft holes found during the Cincinnati excavations (Blegen *et al.* 1950)

	no.	Length	Width (cm)	Thickness (cm)	
Troy I	35-64	6.6	3.7	2.9	axe
	36-201	7.2	5.1	2	axe
	36-416	6.3	3.9	1.8	axe
	35-87	8	3.1	1.2	axe
Troy II	33-325	5.4	4	1.9	adze
	35-286	4 3.5	3.5	1.1	adze
	35-443	6.5	3.3	2.6	axe
Troy III	34-530	6.3	3.7	1.2	axe
	37-479	5.2	4.65	1.55	axe
	37-132	3.6	2.7	0.6	adze
Troy IV	37-531	5.4	1.7	1.3	chisel
	37-29	7.6	4.9	2.7	axe
	37-67	3.7	2.3	0.8	adze?
	37-101	3.9	2.8	2.2	adze
	32-455	5.9	3.3	1.2	axe
	36-266	3.5	3	0.1?	adze
Troy V	35-166 Frag.	3.1	1.3	0.9	chisel
Troy VI	33-7	6.2	3.9	2.2	axe
	37-188	7.6	3.4	3	axe
	38-34	5.25	4.9	1.9	adze
	37-329	2.85	2.9	1	adze
	33-233	2.0	2.7	1.8	adze
	34-387 Frag.	2.9	1.4	0.6	chisel
	35-419	8.4	3.2	1.3	axe hammer
	38-21	5.1	4	1.6	adze
	38-31	3	3	1.1	adze
	36-229	2	2.2		adze
	55-317				Bird-shaped pendant jadeite?
Troy VII	37-433	7.4	2.3	1.35	chisel
	36-151	4.4	2.5	0.9	axe?
	33-153	5.3	2.8	1.2	axe
	37-477	6.4	2.55	1.5	chisel?
	36-348	4.7	1.9	0.7	chisel

Tepe, Beşik Tepe and Hanay Tepe, definitive traces of Neolithic habitation have not yet been reported. It is now time for us to re-examine the history of the Troad and Troy itself since “Troy Zero” has been discovered. We know that even the Palace of Minos at Knossos had an Early Neolithic settlement under the central court (A. Evans 1921 and J. Evans 1964).

The questions I have been asking regarding the possibility of Neolithic habitation at Troy perhaps will be answered by further excavations on the mound of Hisarlik itself and other sites in the Troad, and by further environmental and paleogeographical investigations in the Troad and its vicinity.

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