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TEST EXCAVATIONS IN THE CITY
ON KERKENES DAGH

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INTRODUCTION

Preliminary investigations of the extraordinary site sometimes called Keykavus Kaleh (Figs. 1-3) were made by Mr. H. H. von der Osten in 1926 and 1927.¹ A survey of the city inclosure made by him and Mr. F. H. Blackburn showed that its vast ruins cover an area considerably larger than that of the famous Hittite capital, Hattushash. But, in contrast to the latter, its name is forgotten. No records tell who were the original builders of this immense city, or during what period it arose. Archaeological criteria, such as the style of architectural remains visible above ground or pottery scattered about on the surface, failed to furnish definite information. But the presence of Roman and Byzantine sherds indicated that the site had been occupied during these relatively recent periods. More ancient-looking sherds, however, which were found in addition to these recent wares, pointed toward an occupancy preceding classical times.

In order to obtain definite information about this important site, Dr. James H. Breasted, the director of the Oriental Institute, suggested a test excavation. This was to be made as soon as the section-

¹ H. H. von der Osten, "An Unnoticed Ancient Metropolis of Asia Minor," *Geographical Review*, XVIII (1928), 83-92.

ing of the Alishar *hüyük* ("mound"), where the activities of the Institute's Hittite Expedition were focused, was far enough advanced to



FIG. 1.—The *kaleh* from southernmost point of city

define exactly the contents of the individual levels and, if possible, their historical relations. Our main task at Kerkenes Dagh was to



FIG. 2.—Southeastern part of the Kerkenes city, with defense wall, seen from the *kaleh*.

determine whether the city there had been built during the period of the Hittite Empire or during some preceding or succeeding period.

SURFACE REMAINS

Before the start of the excavation season, the Turkish officials in Ankara courteously granted a permit for preliminary excavations in the Kerkenes city in addition to the concession for our work at Alishar. While the work at the Alishar mound progressed, we made several reconnaissances to Kerkenes Dag, accompanied by members of our



FIG. 3.—Western part of city inclosure, with laborers coming downhill

staff (R. Martin, F. H. Blackburn, K. v. Brand, and J. Reifenmüller), in order to select sites for the test excavations and a camp site. For these excursions we would use the Turkish day of rest, the *chuma* (Friday), and would spend several hours in the afternoon riding and walking over the vast city surface, gathering potsherds, examining the composition of the soil, and spotting large building-complexes clearly outlined if seen from some elevated point such as the *kaleh* or Kiramitlik.

The location of the site has been previously described.¹ It is situated in the *vilayet* of Yozgad, 23 kilometers northwest of Alishar, and as far east-southeast of the town of Yozgad. But as to those features described which concern remains above ground, some interesting facts

¹ Cf. *ibid.*

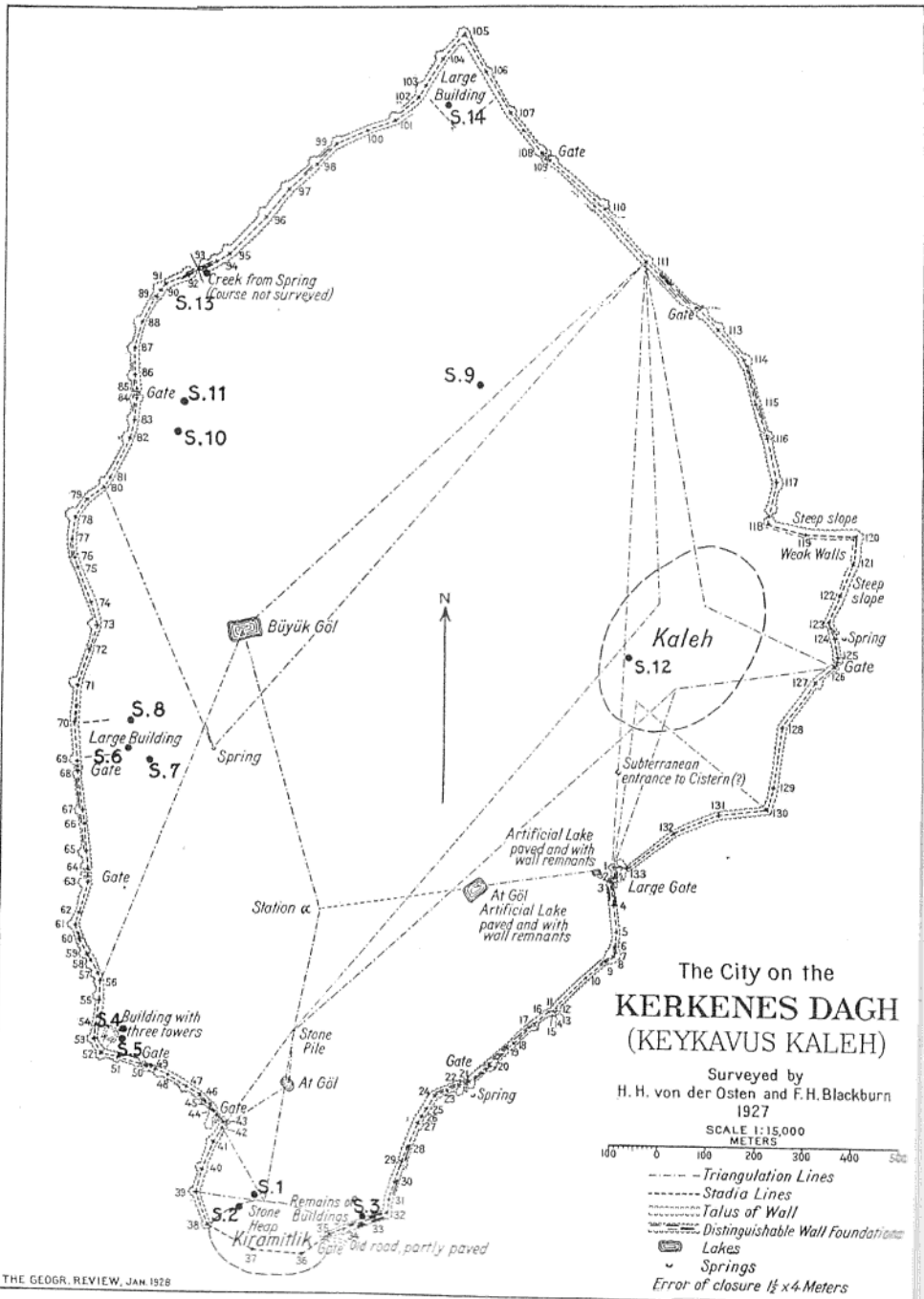


Fig. 4.—Map of the great city on Kerkenes Dagh, with test sites indicated. (Adapted from the *Geographical Review*, Vol. XVIII [1928], published by the American Geographical Society New York.)

may be added. Extending northeast from Stations 52-53 (Fig. 4), a series of small tumuli was found containing stone boxes which had without doubt been used as tombs.¹ These tumuli are placed at intervals of about 10 meters on both sides of a roadlike strip pointing toward the *kaleh*. All the tombs seem to have been rifled in ancient times, as indicated by slabs scattered about and boxes half-exposed to view. Göz Baba (Fig. 5), a high mound of rounded conical shape



FIG. 5.—Göz Baba from west

situated 3.5 kilometers southwest of Kiramitlik, is actually a *kaleh* of the same kind as that inside the city limits. Göz Baba too shows traces of pavement on its steeply inclined slope, and a walled-in settlement lies at its foot. Traces of walls are visible on its flat, slightly concave top.

As to surface pottery in the Kerkenes city, valuable clues were obtained by carefully watching its distribution. On the *kaleh* and also on Kiramitlik a number of *terra sigillata* sherds, "type fossils" of Roman strata throughout this region, and iridescent glass chips were noticed. Elsewhere, over the vast area of the city, instead of classical

¹ Cf. Sites 5a and 5b (pp. 237-40).

or more recent fragments we found plain, rather coarse, "greasy"-looking, yellowish brown sherds. A few painted sherds, which according to our experience at the Alishar mound are older than the classical period, occurred among them. There were areas in the downtown section entirely bare of surface sherds, while on Kiramitlik sherds occurred in thick layers, a fact which gave that part of the town its name ("place where there is pottery"). The vast number of surface sherds at this spot is apparently due to its exposed position.



FIG. 6.—Our camp on Kerkenes Dagh

It is the highest point of the site. Wind and water are blowing off or washing down refuse soil and roofing material which had once been deposited on top of the broken pottery.

CAMP AND VISITORS

After the camp site had been selected at the foot of the Kiramitlik slope (Figs. 6-8), Messrs. Blackburn and Brand repaired and even partly built roads and moved tents, tools, and other equipment from Alishar to Kerkenes Dagh. Our laborers wandered in groups from the villages near the Alishar mound to their new working-place. Since they moved in "hostile territory," they went rather heavily

armed, old-time six-shooters and daggers bulging their broad woven belts, although village feuds are almost a thing of the past. The camp circle included, in addition to all those previously mentioned and the writer, Mr. von der Osten, Sherafeddin Bey (the Turkish government commissioner), Maurice, the cook, and Wolf, a fine specimen of an Anatolian shepherd dog.

Dr. Julius von Mészáros, the co-director of the Ethnological Museum in Ankara, who had accompanied Mr. von der Osten on his explorations to the eastern *vilayets*, was our guest. He used the opportunity to make ethnological studies in the village of Shakh Muratli, situated at the foot of Kerkenes Dagh. Further visitors were Professor and Mrs. Eugène Pittard, of the University of Geneva, who were making an exploration trip through Asia Minor. A group of the Yozgad Turk Ojak (National Turkish Club) also came to see our work (Fig. 9).



FIG. 7.—Reifenmüller mending a pot (K 83)

THE EXCAVATIONS

The excavations in the Kerkenes city lasted from August 11 to 18. Altogether we dug test plots at fourteen points—in buildings, at the inner front of the city wall, and in slopes outside of structures. In addition to the work in town we tested four *tepelers* (tumuli) in the necropolis situated to the west. The work was strenuous for staff and laborers. Long distances had to be traveled daily, steep rocky slopes were to be climbed, and the test crews were scattered, owing to the nature of the work.

At three sites determined during previous reconnaissances the

work started simultaneously. All were in the Kiramitlik region. Here is situated a group of structures with easily traceable wall re-



FIG. 8.—Our cook at work

mains. It is the highest and southernmost point of the town. Although during the surface examination considerably fewer Roman sherds were noticed here than on the *kaleh*, our excavations proved that these fragments indicated a rather thick layer of the Roman period.

Site 1 (Fig. 10).—On the western slope of the knoll on which the Kiramitlik structures are situated, masses of potsherds were scattered about, black refuse soil was visible at the entrances of holes dug by rodents, and bed rock



FIG. 9.—The Turk Ojak of Yozgad in our camp

did not crop out at any spot. The topography of the surface suggested a rather thick refuse layer. For a rough-scale stratigraphic study we staked out an area 5 by 5 meters square, 2 meters below the level of the rooms at the edge of the Kiramitlik complex (Fig. 11). We hoped to strike a layer perhaps underlying the suspiciously recent-looking Kiramitlik structures and "cropping out" beyond the margin of the latter. Here as well as at all the other sites where the deposit was deep enough, the soil was sliced into layers half a meter thick (Fig. 12) and the objects obtained were recorded accordingly.

Potsherds were always washed right beside the trenches in order to keep us informed about the situation. At this spot *terra sigillata*, the type ware of Roman layers, was equally distributed from the top stratum to the bottom of the culture deposit, which was reached at a depth of 1.60-1.75. A few Arezzo-like sherds

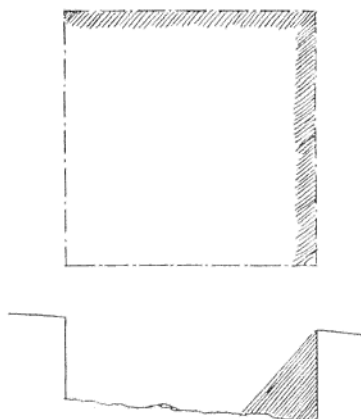


FIG. 10.—Site I; scale, 1:150



FIG. 11.—Excavating Site 1 below edge of Kiramitlik structures

occurred also, a few centimeters above the original surface; and, last but not least, a small Roman coin (Field No. K 1) was found at a depth of .40. A second, heavily oxidized coin—probably Roman—appeared at a depth of 1.10. However, in addition to the prevalent Roman objects, one sherd (K 4) of seemingly Byzantine origin occurred at about 0.60. It had a crosslike design in relief. A sherd with a fragmentary Latin or Greek inscription (K 5) was found 1 meter



Fig. 12.—Stratum I of Site 1 finished

below the surface. At Site 1 the culture deposit thus proved to contain no objects older than the Roman period.

Site 2 (Fig. 13).—The second test plot was excavated in a room at the edge of the Kiramitlik complex (Fig. 14) about 50 meters south of Site 1. The situation at this spot paralleled that of Site 1 as to the contents of the room filling. Many *terra sigillata* sherds occurred, and the plain-ware sherds had the same characteristic shapes of handles (nearly 90 per cent raised margins) and rims ("step" rim [Fig. 64, No. 1]) as those from the first plot. Here as at Site 1 were found plenty of iridescent glass sherds, presumably Roman, also many iron and bronze fragments, which were little or not at all oxidized. A

Roman coin (K 9) occurred at .80, and a Byzantine coin at even 1 meter of depth! A fragmentary pottery lamp (K 61) of classical type appeared approximately on the floor of the room.

At this site, however, we obtained hints of an occupation preceding the Roman period. The room was superimposed on a wall which in turn stood directly on top of another wall exceedingly broad and well built (Fig. 15). *Terra sigillata*, though occurring almost to the bottom of the excavation (3.30 below the surface), became infrequent. Instead, an imported Greek sherd (K 27) with smooth surface and fine decoration in red, brown, and dark brown on light buff appeared at 2.50, i.e., in the lowest layer. Its fragment of design

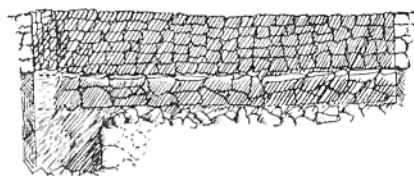
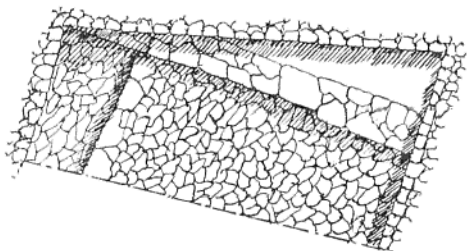


FIG. 13.—Site 2; scale, 1:150



FIG. 14.—Work at Site 2

represents a horse and the feet of a man (only the heel of the second shoe visible). Another painted sherd with band design (K 62) was found somewhat higher up. Its identity in color combination and surface treatment with K 27 indicates its time relation, although the design proper would not accurately date it.

At Site 2, then, the Byzantine, Roman, and Greek periods were represented. No indications here suggested an older inhabitation.

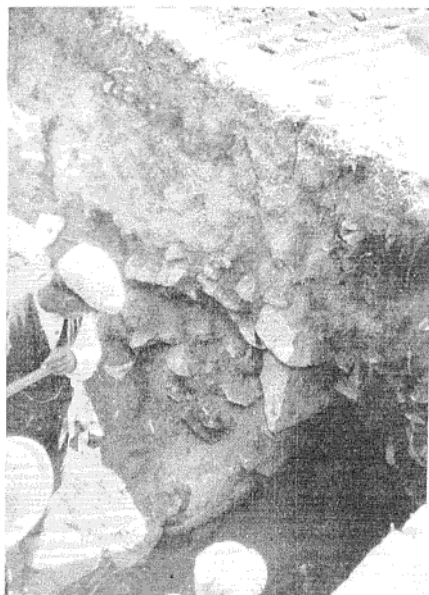


FIG. 15.—Work on lowest level of Site 2

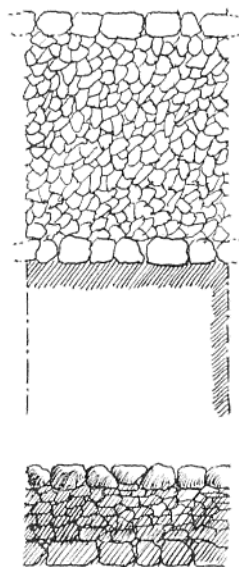


FIG. 16.—Site 3;
scale, 1:150.

However, although the excavation here was carried to a depth of 3.30, the original surface was not struck. For this reason it is possible that a thin older layer is present, such as was encountered everywhere in the "downtown" district. The work was stopped because a pile of rocks was encountered and the working space became narrow. Judging from our experience at Site 1, the bottom of the culture deposit could not have been far.

Site 3 (Fig. 16).—About 100 meters northeast of Kiramitlik a well-preserved fragment of the city wall .40 high was visible in the rock talus. Here the third trench was started in order to determine

the pottery and other artifacts associated with the base of the wall. The foot of the wall, and with it the original surface, was struck 2 meters below its upper edge. The stratum on which the wall stood was wet sterile sand. An interesting feature of this wall is that the stones preserved in the upper layer are as large as those in the foundation, while smaller stones had been used for the intermediate layers (Fig. 17).



FIG. 17.—Inner front of city wall exposed at Site 3

Several iron objects were here found, and a small bronze forceps (K 16), but no "dating specimens." Again we have to turn to the pottery. *Terra sigillata* was absent! The Romans are therefore eliminated as builders of the wall. Two Byzantine sherds (K 99 and 102) with green glaze, one with additional black lines, occurred at depths of 0-.50 and .50-1.00. There were some fine-ware sherds, light brown and brown-red, which may be classical; but the main clue was furnished by the plain ware, not because it linked up with any Alishar period, but because it was identical with the sherds found afterward in the vast buildings of the lower town, where they were never accom-

panied by classical fine wares. One painted sherd (K 100) was found which linked up Site 3 with Site 4. It has a design of interchanging straight and curved lines painted in lustrous black-brown on a buff ground. Although the somewhat iridescent pigment of the decoration reminds one of Roman *graffito* ware, it is not identical with the latter, but is considerably older, as will be shown in discussing Site 4. Another painted sherd (K 101) has a simple band design in black-brown on a dark-purple background. Both K 100 and K 101 were found in the top layer, while a third painted fragment (K 103), with dark-red lines on a brown-red ground, occurred in the second layer

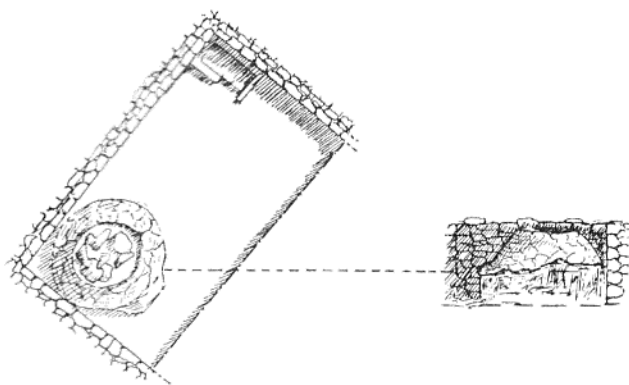


FIG. 18.—Site 4; scale, 1:150

(.50-1.00). Sherds with band designs of a similar type were at Alishar associated principally with the pre-Roman Level 2 and to some extent with Level 3, but not with the presumably Hittite Level 4.

The finds above described include remains of the Byzantine period and possibly of the early classical period. But the bulk of the plain ware and the sherds with band designs are most probably preclassical, leaving little doubt about the preclassical origin of the wall at Site 3. These conclusions are amplified in the descriptions of the following sites.

Site 4 (Fig. 18).—This test plot is situated about 400 meters northwest of Sites 1 and 2 and considerably lower than Kiramitlik. The site, part of a room belonging to an extensive building complex, proved to be exceedingly fertile in specimens and information. A baking-oven (Fig. 19) found in the southwest corner of the room had

the form of an inverted, slightly rounded cone 2.40 broad at the base and 1.60-1.20 wide at the open, truncated apex. Its wall was made of brittle brick-red earthenware .025 thick. It may have extended to the very floor of the room, but its lower part had crumbled off to within .40-.80 above the floor. Its top was only .15-.20 below the present upper edge of the inclosure. A rectangular fireplace

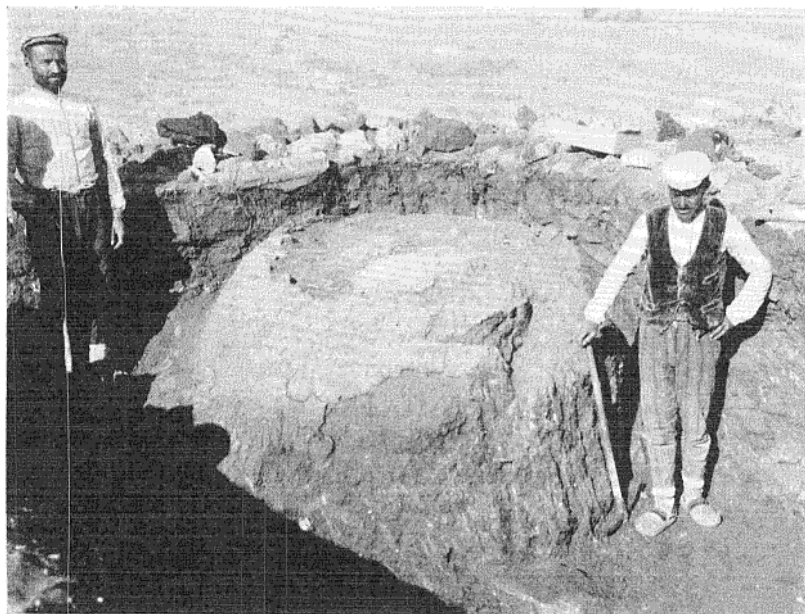


FIG. 19.—Baking-oven in Site 4

(Fig. 20) was found in the northwest corner. Its walls had been built of two rows of pottery slabs and thin fire-brick fragments. The space in between was filled with mud.

Various almost complete pottery vessels (see pp. 260-64 and Figs. 53-58), some of them with painted or impressed decoration, from the floor layer of this room are among the most important specimens obtained during our work. It is significant that among the pot fragments here not a single *terra sigillata* sherd was found. Some light-brown and red-brown sherds with relatively fine paste occurred in the second layer. However, they have not the appearance of the classical fine ware. In the top layer a sherd (K 105, Fig. 62) decorated with

black-bordered purple bands and purple dots appeared, and in the third layer a black polished sherd together with a gray-brown incised fragment (K 107, Fig. 62). In a thin bottom layer another painted potsherd occurred (K 106, Fig. 62), decorated with brown-red parallel bands. This collection of pots and fragments shows, first of all, that the building to which the room belonged was not constructed during the Roman period; and there is no indication that it was inhabited

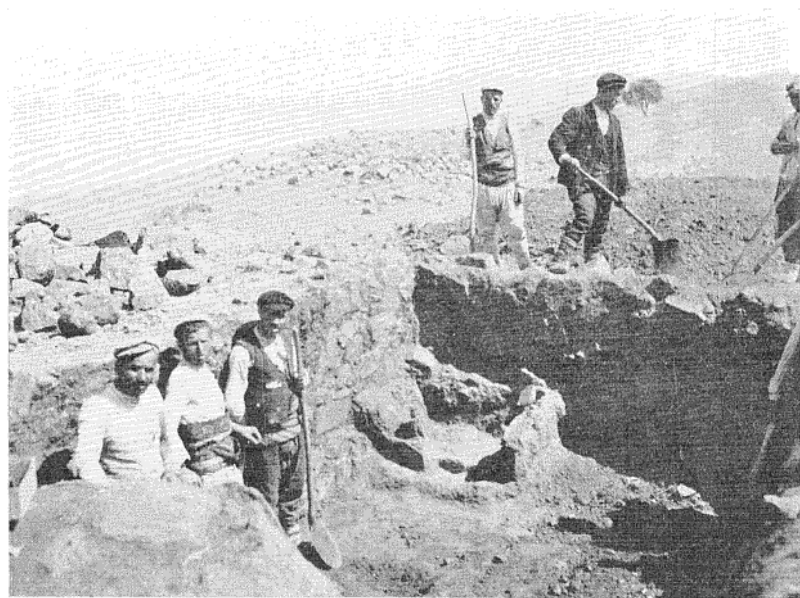


FIG. 20.—Fireplace in Site 4

during Hellenistic times. The decorations on pots and sherds are simple band designs with a few zigzag lines or dots as the only variants. This kind of ornamentation was met with at Alishar on Levels 2 and 3, i.e., in that period which preceded the Roman occupation and succeeded the Hittite inhabitation of Level 4. No sherd of Level 4 pottery was found at Site 4.

Of objects other than pots or sherds, two pottery "weights" (loom weights?) were found (K 32 and 49, Fig. 67) resembling similar specimens from the post-Hittite Levels 2 and 3 at Alishar. Other specimens were: a bronze fibula (K 28, Figs. 70 and 71), a pottery

“spindle whorl” (K 29, Fig. 66) of truncated biconical form (identical with specimens most frequent in Alishar Levels 2 and 3), a bronze arrowhead with socket (K 33, Fig. 69), iron “bracelets” (K 34 and 35, Fig. 72), an iron forceps (K 50, Fig. 71), and other iron objects. According to the pottery, supplemented by the foregoing analogies, the building in which Site 4 was excavated had apparently been constructed in preclassical and post-Hittite times.

Site 5 (Fig. 21).—This plot was excavated close to Site 4 in a corner of what seemed to be a large inclosure. Site 4 had been dug in a room bordering this inclosure and belonging to the same building

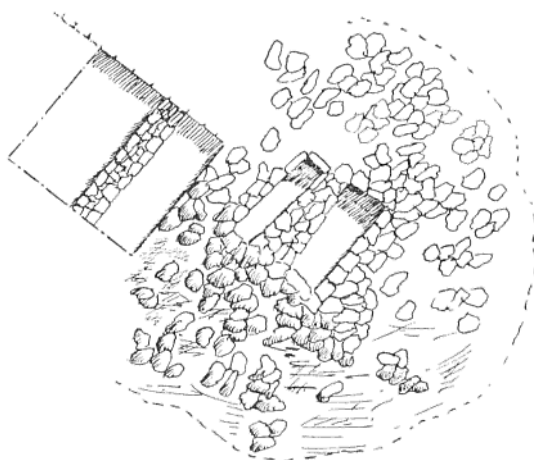


FIG. 21.—Sites 5 and 5a; scale, 1:150

complex. A short distance southeast of Site 5 a hillock also was cleared in order to determine whether it was a tower or a mortuary *tepe* belonging to a series of similar *tepeles* which extend in a double line toward the *kaleh*.

At Site 5 as at Site 4, the excavation was carried down to about 1.50, where exceedingly hard and sterile soil was struck. Here the most important specimen found (K 41, Fig. 69) was a socketed arrowhead of bronze with one barb. Two identical arrowheads had been found at Alishar (Nos. a17 and a339), but the exact find-spot of only one could be determined. It was Level 2, i.e., pre-Roman. The other had been found in the dump-soil taken from the top of Mound A.

Few distinctive sherds occurred. There was again a fragment with some parallel lines in black on a brown background, and another sherd with relatively fine paste and purple slip. The plain ware, however, had the same characteristics as at Site 4, namely, a typical kind of offset rim (Fig. 64, No. 4), in contrast to the "step" rims (Fig. 64,

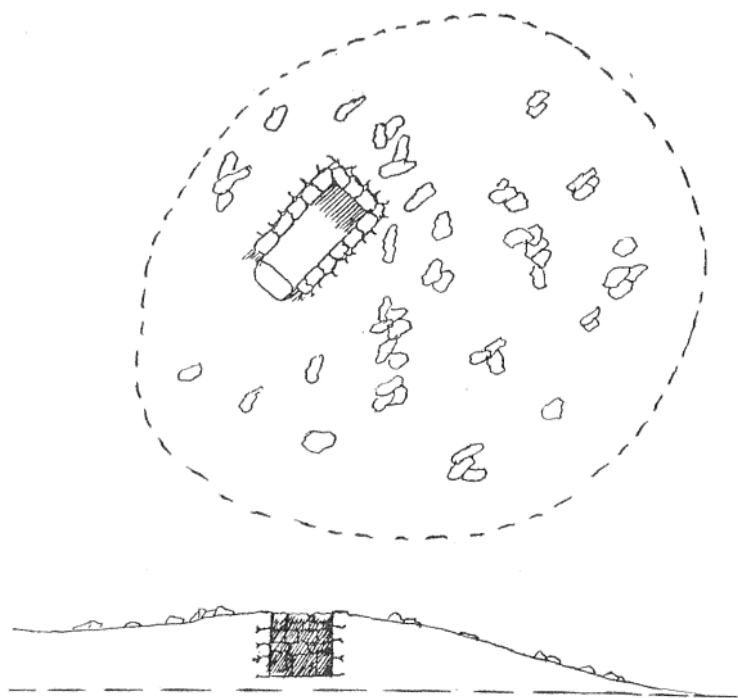


FIG. 22.—Site 5b; scale, 1:150

No. 1) of Site 1 (Roman), and handles with circular or oval cross-section in contrast to those with raised margins typical for Site 1. A fine bead (K 36, Fig. 68), oval, made of stratified green and orange stone, occurred within the first half-meter. The material taken from Site 5 is identical as a whole with the objects from Site 4. The conclusion is therefore the same, amplified by the occurrence of the Alishar Level 2 arrowhead.

The hillock mentioned above (Site 5a) seems to have contained a double grave. Although no osseous remains were found, the arrangement of the two stone-lined cists (Fig. 21) speaks for this assumption.

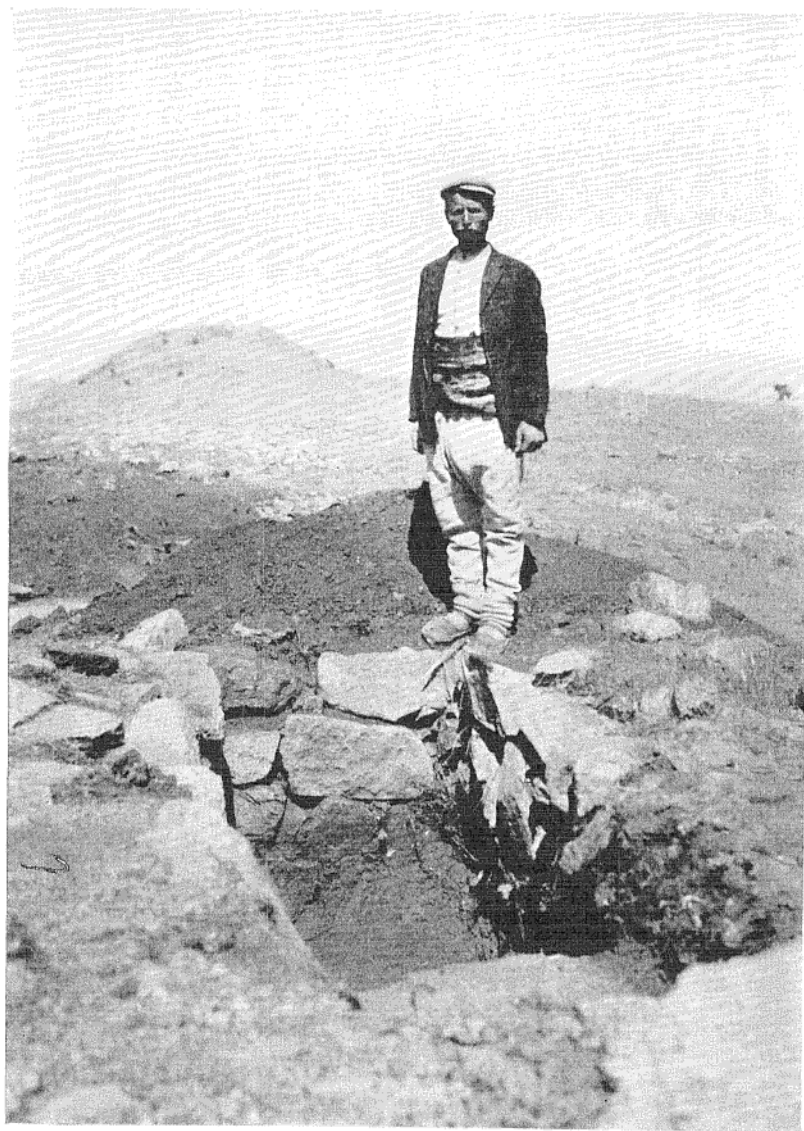


FIG. 23.—Stone-lined cist in *tepe* forming Site 5b; in background, the *kaleh*

The northwestern cist is supplied with three slabs at the northeast, suggesting the head end.

Another *tepe* (Site 5b), situated about 20 meters southeast of Site 5a, was also cleared. Though the edge of the grave was visible and it was plain that it had been robbed, we wanted to know its depth and style of building. Here, as at Site 5a and in other *tepeles* noticed within the city limits, the mortuary cist had not been sunk below the surface, but the soil had first been heaped up to form a hillock into the top of which the burial chamber had been built (Figs. 22 and 23).

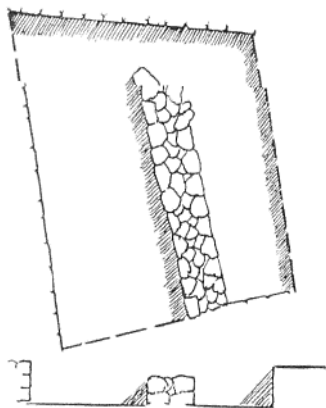


FIG. 24.—Site 6; scale, 1:150

The latter has a somewhat eccentric position, due perhaps to the shifting of the soil. No specimens were recovered from either *tepe*.

Site 6 (Fig. 24).—For the sixth test we chose a very extensive building about 1 kilometer northwest of Kiramitlik and halfway down the slope on which the town extends. Within this building we excavated the corner of a long, narrow inclosure which, however, as we soon noticed, was subdivided into further rooms (Fig. 25). No sherds with special characteristics were found; but again the

plain ware had rims and handles like those at Site 4. A rounded conical stone was found which suggested an unfinished stamp seal (K 47, Fig. 68); but only scratchings were noticed on the base.

Site 7 (Fig. 26).—In the eastern part of the building of Site 6, a few horizontal stone slabs not covered by soil roused our curiosity, and we uncovered an area measuring about 35 meters square to determine the character of these slabs. The entire area uncovered is paved (Fig. 27), but slopes downward toward a lower, eastern section of the building complex. The grade of the slope is not uniform; there are two rows of large slabs less inclined than the rest of the pavement. At the upper, western end of the pavement an offset is formed, whence the pavement continues in a horizontal plane. A wall section borders the inclined pavement on the north. The paved slope suggests a roadbed, since no remains of a possibly crumbled upper structure

were noticed. In that case one might have thought of a fortification wall with inclined foundation. No specimens were recovered.

Site 8 (Figs. 28 and 29).—Here a complete room was excavated in the same building complex as Sites 6 and 7. The walls were well built and straight. As a matter of fact, here and in most of the other rooms the walls were better built than in the greater part of the rooms uncovered at Alishar. This is partly due to the material available. The



FIG. 25.—Work at Site 6

rocks in the vicinity of the Kerkenes city break with straight edges, improving the quality of the walls. The room excavated is nearly square. A short wall protrudes into the interior from the western inclosure; and remains, possibly of two older walls, appeared at the bottom of the excavation right on top of the original surface. A truncated biconical pottery "whorl" (K 54, Fig. 66) was recovered, also a short perforated stone slab, perhaps a whetstone (K 55, Fig. 68), of a type well known from Alishar. Since such specimens occurred there in Levels 2, 3, and 4, it is of no chronological use. The same is true for an object of lead wire (K 63, Fig. 71) used for repairing pots, as we learned at Alishar.

Site 9 (Fig. 30).—Assuming that the culture deposit at this spot was deep, another stratigraphic study was here started. However, at a depth of .50 the original surface was struck. The site was chosen on a gentle slope in midtown within a building-complex about 1 kilometer south of the northernmost point. No traces of walls were visible at the spot selected for the study; but just below the surface the foundations of walls were struck, and soon afterward a paved floor situated right on top of the original surface.

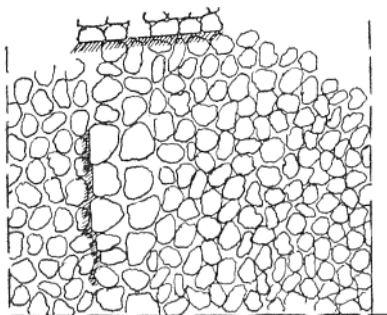


FIG. 26.—Site 7; scale, 1:150

Very little pottery was recovered. No *terra sigillata* or other classical fine ware occurred. A few sherds of storage vessels

were found which had rectangular ledges in relief on the exterior. However, this type of strengthened storage pot may belong to any period.



FIG. 27.—Pavement at Site 7

Site 10 (Fig. 31).—Our tendency while testing the Kerkenes city was to shift each gang to a section farther downtown as soon as a plot was finished. In this manner we examined mainly the western half of the town, only Sites 3, 9, 12, and 14 having been excavated on or east of the central north-south line. Sites 10, 11, and 13 were situated in the lowermost part of the ruins, Sites 10 and 11 in a large building-complex which extends from the gate at Station 84 (Fig. 4) toward the east.

Although at Site 10 remains of two superimposed buildings were found, the objects recovered gave no hint of any considerable lapse of time between them. The pottery was the same as at Sites 4-8. There was only one distinctive sherd (K 110), grayish black with

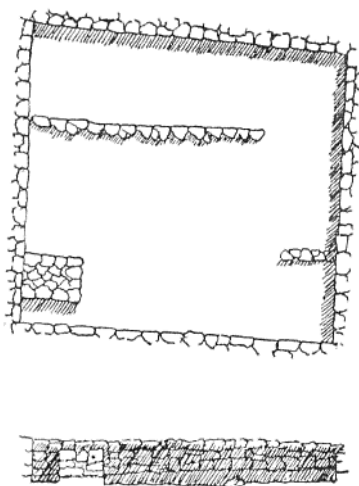


FIG. 28.—Site 8; scale, 1:150

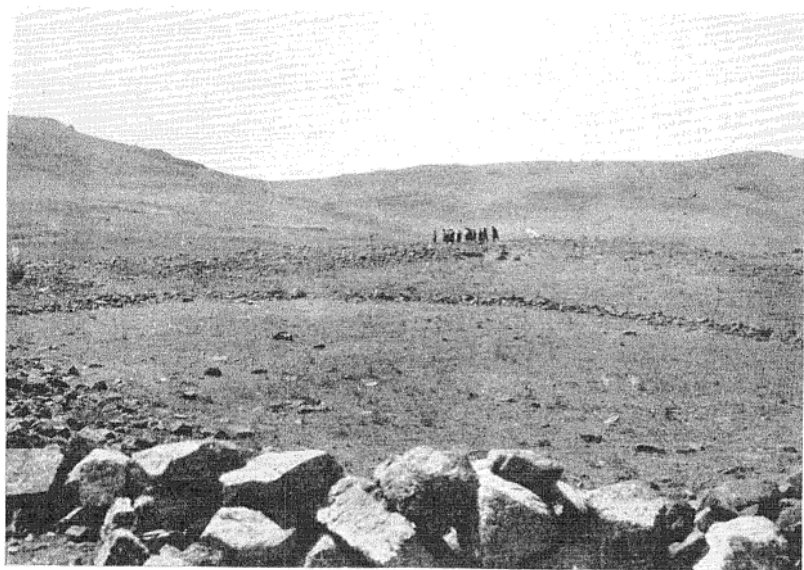


FIG. 29.—Site 8 and vicinity; gang at work

fine parallel incisions. Three arrowheads of iron and bronze were recovered, representing as many types. The arrowhead of iron (K 58,

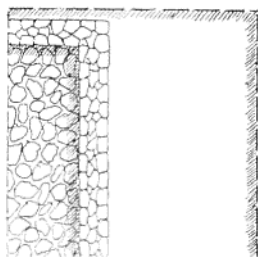


FIG. 30.—Site 9; scale, 1:150

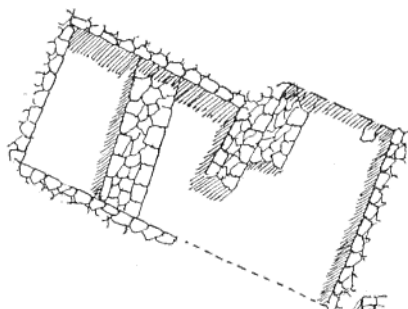


FIG. 31.—Site 10; scale, 1:150

Fig. 69) is tanged, triangular with sharply in-drawn neck; K 59 (Fig. 69) is of bronze with one barb and a socket, identical with K 41

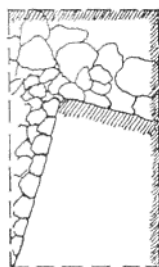


FIG. 32.—Site 11; scale, 1:150

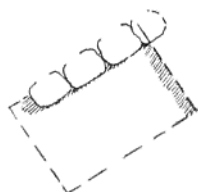


FIG. 33.—Site 13;
scale, 1:150

found at Site 5. The third arrowhead (K 64, Fig. 69), also of bronze, is identical in form with others of triangular cross-section found at Alishar mainly in Levels 3 and 4. We regret to say, however, that this type furnishes no clue as to contemporaneity, because it has been in use at times and places far apart. Another lead object for repairing pots (K 65, Fig. 71) was also found, similar to that at Site 8.

Site 11 (Fig. 32).—The building in which Site 10 was excavated adjoins a road leading through the gate at Station 84 (Fig. 4). At Site 11 a short section of the wall bordering this road was uncovered. The wall, built of large rocks, did not extend very deep. At .50 the original surface was struck. Only a few sherds and a rounded conical “spindle whorl” of stone (K 72, Fig. 68) were recovered.

*Site 13 (Fig. 33).*¹—Traces of a gateway are visible, where the town

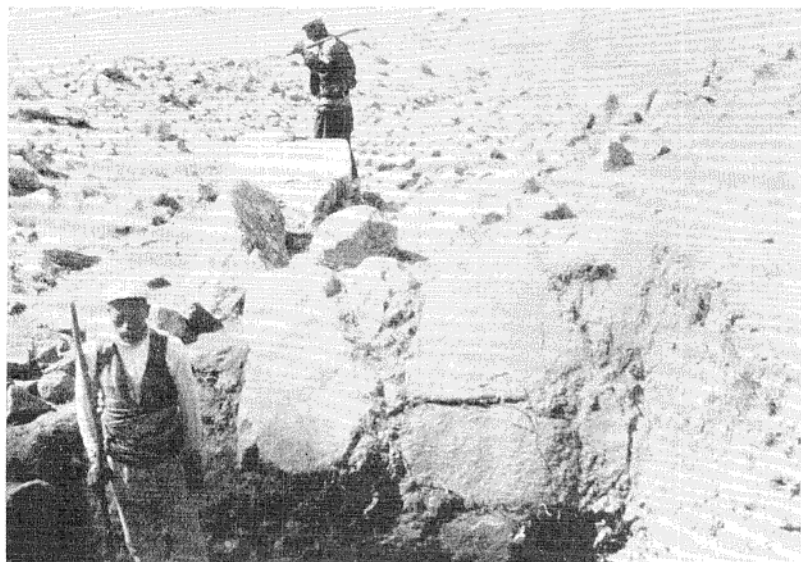


FIG. 34.—Inner corner of gateway at Site 13

creek forces its way through a huge rock pile, débris of the city wall. A corner of this gateway (Fig. 34) was uncovered in order to test once more the material associated with the wall base and to find out whether any gateway sculptures were present. No sculptures were found, though we penetrated to the original surface a little below the foot of the inclined wall-slabs. A small chip of a Byzantine sherd occurred within the first half-meter. The rest of the pottery was essentially the same as that found in all those sites where no classical pottery was encountered. A fragmentary shallow bowl (K 111) was of finer ware than the average, with smooth red-brown surface and slightly concave bottom.

¹ For Site 12 see p. 247.

Site 14.—At this site also the situation paralleled those encountered in the other downtown sites. This, the northernmost point tested by us, was situated within a large building constructed right in the acute angle which is here formed by the wall at its northern end. Here, too, the original surface was struck about .60 below the surface of the culture deposit (Fig. 35). No sherds with particular earmarks were found, but again the plain ware was identical with that of Sites 4–13.



FIG. 35.—Site 14 excavated

The most striking criteria derived from Sites 6–11 and 13–14 are of negative nature. With the exception of a small Byzantine sherd from Site 13, no classical or Hittite wares were found; and no other objects suggested that the structures tested were of classical or post-classical origin or that they had been built in Hittite or pre-Hittite times. Starting at Site 4, the pottery showed at all the sites an almost monotonous uniformity, suggesting, as did the uniformly arranged buildings, contemporaneity of all these widely distributed structures. Everywhere the same plain ware with yellowish brown or reddish yellow surface, with rather coarse paste and admixed stone particles, occurred.

Site 12 (Fig. 36).—As a result of the preceding tests, which were distributed all over the city territory, it became clear that the Hittites could not have built this town and that the only place where a fortress or a small settlement of that period could have existed was the *kaleh*. Its steep hill dominates not only the town but also the entire environ-

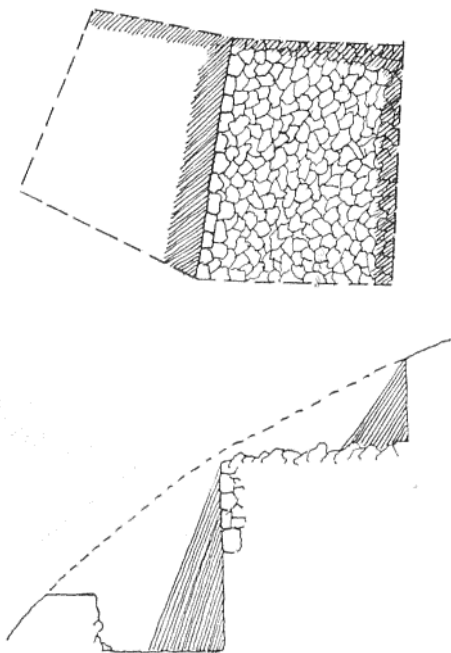


FIG. 36.—Site 12; scale, 1:150

ment. Owing to surface clues, we knew well enough that during the Roman period a fortification had been built on the top; but we assumed that the Roman settlement had been superimposed on one or more earlier ones in the same way as at Alishar. For this reason we chose for Site 12 a spot at the western slope below the well-marked border-wall of the Roman settlement (Fig. 37). At a depth of 1.60 we struck here a rock pile extending more than 3 meters toward the west. It was the upper edge of a strong fortification wall, the front of which we soon determined (Fig. 38). We continued to terrace down outside the wall until the original surface was struck. In the upper

terrace a number of Roman *terra sigillata* sherds and glass fragments appeared which had fallen over the edge of the settlement above. However, in addition to the Roman ware, sherds with band designs (K 112-14, Fig. 62) were found, resembling those of Sites 3 and 4. There was also a bronze arrowhead (K 73, Fig. 69) with socket and oval blade, reminding us of K 33 found at Site 4. An iron pick (K 76, Fig. 72) occurred in the same layer.



FIG. 37.—Starting Site 12

In the lower terrace exceedingly few sherds were found. None had any characteristics that permitted linking it up with the other sites or with any particular period. A large iron arrowhead (K 86, Fig. 69) was found here, also a smaller one of bronze (K 87, Fig. 69) identical in shape with K 64 recovered at Site 10. There was also a beautiful bronze fibula (K 88, Fig. 71), besides various other objects or fragments of glass, stone, and metal. No more *terra sigillata* occurred below the edge of the fortification wall uncovered, but also no Hittite ware. The last spot where the Hittites could possibly have been had proved sterile!

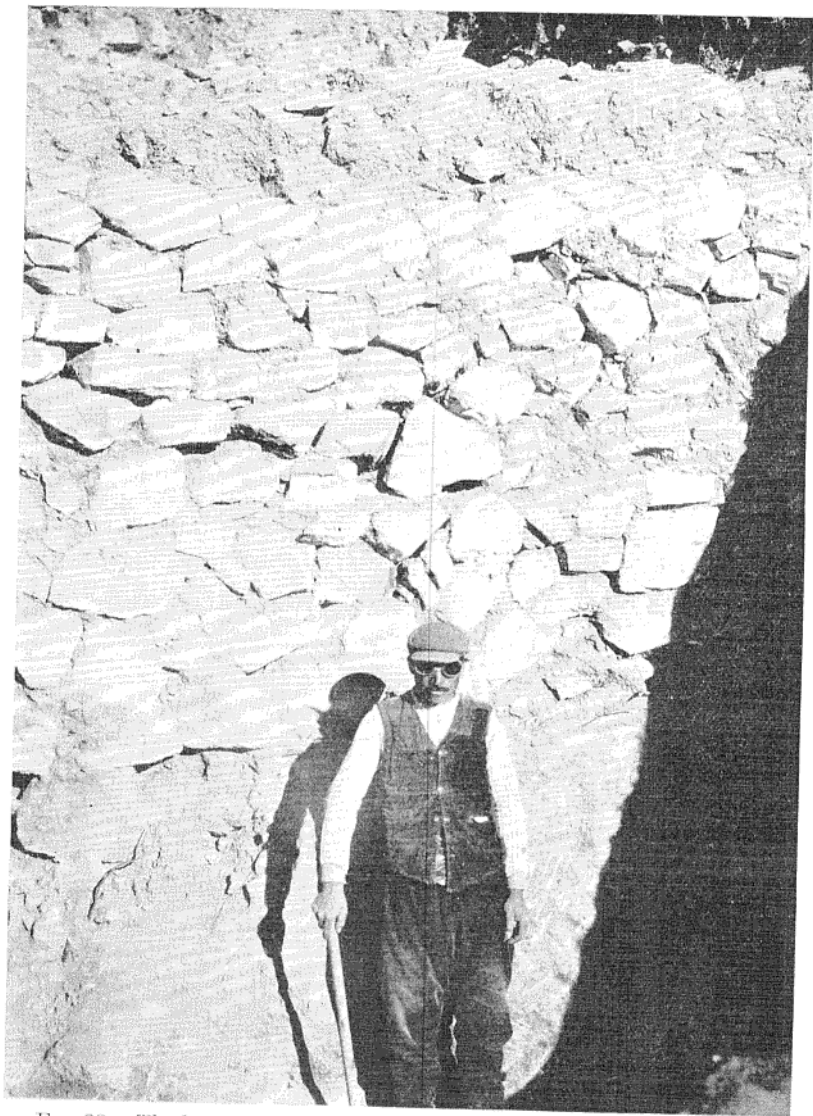


FIG. 38.—The bottom of the excavation at Site 12. Ali in front of the fortification wall underlying the Roman layer.

WORK IN THE TUMULI

In addition to the work within the limits of the Kerkenes city, we tested four *tepeler* to the west of it. About one mile away from the inclosure a chain of hills extends northeast-southwest. Here the necropolis of the Kerkenes city seems to be situated; for sixty-nine tumuli ranging from .20 to 10 meters in height are scattered over the summits and shallow natural basins of the hill chain (Figs. 39-43).

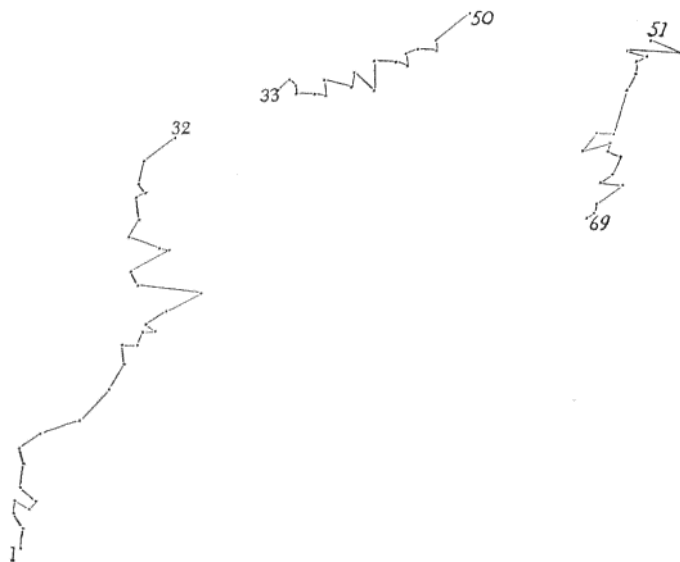


FIG. 39.—The necropolis of the Kerkenes city; general map; scale, 1:15,000

We could not attempt to test one of the large hillocks before knowing where, as a rule, the burial chamber or cist is located. Four relatively small tumuli were therefore chosen (Figs. 44-47). They had an average height of 2 meters above the surrounding surface, and a diameter of 20-30 meters. All of them had a rounded conical shape, while some of the larger *tepeler* were conical or semiglobular. On account of lack of time, the areas excavated were relatively small (in all cases 5 by 5 meters). The centers of the tumuli were examined first (Fig. 48), with the understanding that later the slopes should be tested in case the centers proved sterile. In *Tepe III* the excavation was widened in three directions to the periphery of the mound (Fig. 49). In *Tepe II* a short wall was struck behind the northwest corner

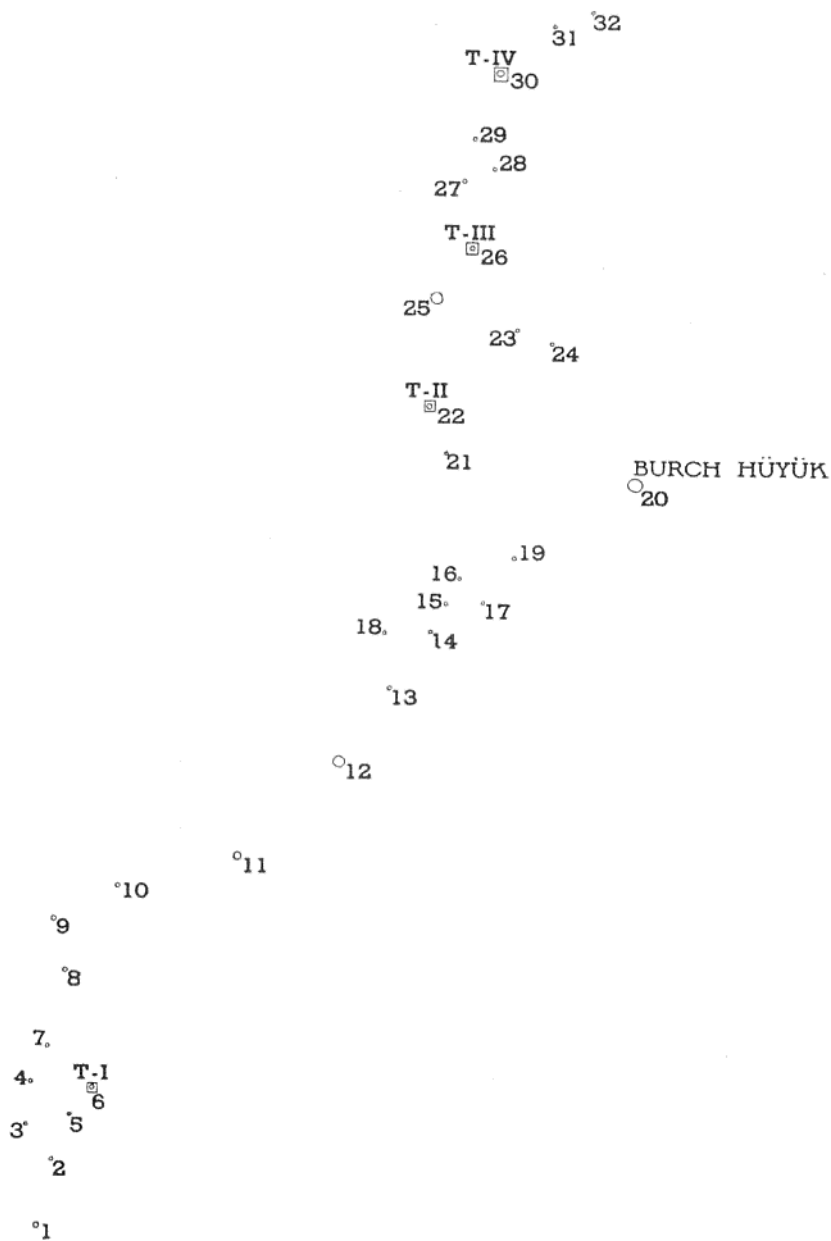


FIG. 40.—*Tepeler* 1-32; scale, 1:5,000. Numbers 6, 22, 26, and 30 were tested. Number 20, perhaps a domiciliary mound, is called Burch Hüyük by the natives.

of our plot (Fig. 50), but no trace of a grave appeared. In *Tepe I* masses of charcoal particles, fragments of iron and bronze objects,

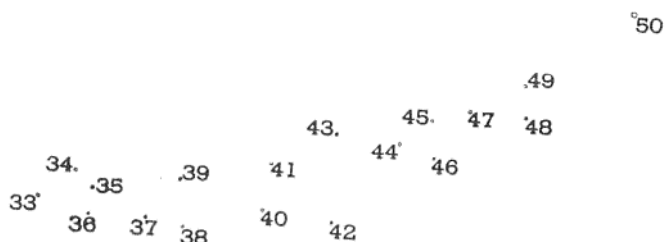


FIG. 41.—*Tepe I* 33-50; scale, 1:5,000

and sherds were found at the east wall of the plot in a layer extending from 1.50 down to the bottom of the excavation. In the floor a de-

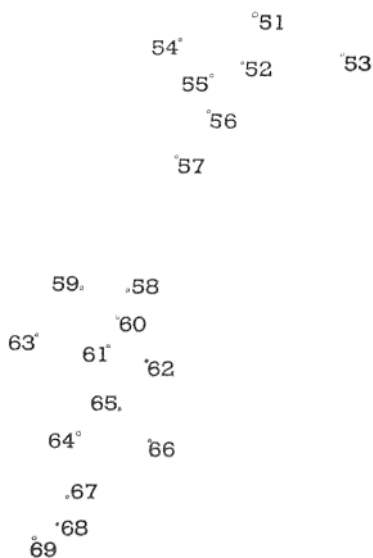


FIG. 42.—*Tepe I* 51-69; scale, 1:5,000

pression was struck which extended eastward below the unexcavated slope.

A similar depression (Fig. 51) encountered in *Tepe IV* was .80 deep on an average and had a roughly quadrangular form. There is little doubt that this was the burial cist. However, no skeletal remains

were found. Part of a beautifully wrought copper or bronze vessel (K 80, Figs. 73 and 74) lay at the edge of the depression (Fig. 52), and



FIG. 43.—*Tepeler* west of the Kerkenes city. The highest elevation is Bureh Hüyük.

fragments of the only elaborately painted pot (K 115, Fig. 63) found during the Kerkenes tests were scattered about in a layer 2 meters high above the floor of the chamber. The pot is decorated with black-brown designs on white-slipped panels covering in part the brown-red surface. The decoration consists of a hatched fret pattern, bands of triangles and lozenges, and a checkerboard pattern. Although most of these design elements are found on Alishar pottery, the pottery type represented by this specimen did not occur. But it may be stated that designs painted on white panels were frequent at Alishar in Levels 2 and 3.

The work done at these *tepeler* indicated first of all that it is necessary to dig a larger central area and at the same time a lateral trench, in order to find out whether there are slope burials. Furthermore, it is advisable to examine *tepeler* farther away from settlements which have been reinhabited. *Tepe* IV had been robbed, although no surface indications of an intrusion were visible.



FIG. 44.—*Tepe* I; scales, 1:2,000 and 1:400.

CONCLUSIONS

Our first working-day at Alishar after the completion of the Kerkenes tests showed again the extreme contrast between the Kerkenes



FIG. 45.—*Tepe II*; scales, 1:2,000 and 1:400.



FIG. 46.—*Tepe III*; scales, 1:2,000 and 1:400

Dagh material and the objects being recovered in our Hittite Level 4.



FIG. 47.—*Tepe IV*; scales, 1:2,000 and 1:400

At Alishar hundreds of typically painted pot fragments appeared daily, accompanied by bronze needles and pins of characteristic form. In the lower Hittite level were found pottery "spindle whorls," concave with incised ornamentation, and other typical specimens. Exactly the same types of pottery are known from Boghaz Kõi and also from Kül Tepe northeast of Kaisariyeh, indicating how uniform was the material culture in Anatolia during the time of the Hittites. It would be absurd to assume that a city as large as that on the Kerkenes Dagh, and necessarily with a *foreign* culture, was permitted to exist while Boghaz Kõi played a leading rôle. Neither can the Kerkenes city have been built prior to the Hittite Empire (ca. 1500–1200 B.C.). Our Alishar Periods II and

I, preceding that empire, have such distinct characteristics of almost monotonous uniformity that they cannot be mistaken. The Kerkenes city is neither Hittite nor pre-Hittite.

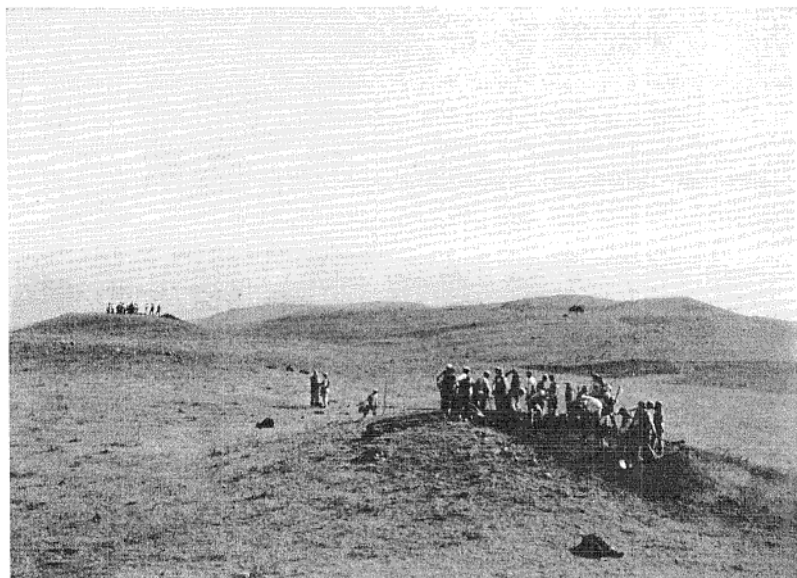


FIG. 48.—Work started at *Tepeler* III and IV (III in foreground)



FIG. 49.—Work in *Tepe* III completed

As a matter of fact, the objects found in the extensive downtown section of the Kerkenes city, where there are hardly any traces of a dual occupation, linked up in some respects with the post-Hittite Levels 2 and 3 of the main mounds at the Alishar *höyük*. The chief links are the simple band decoration on pottery vessels and the bi-conical pottery "spindle whorls," which suggest approximate con-

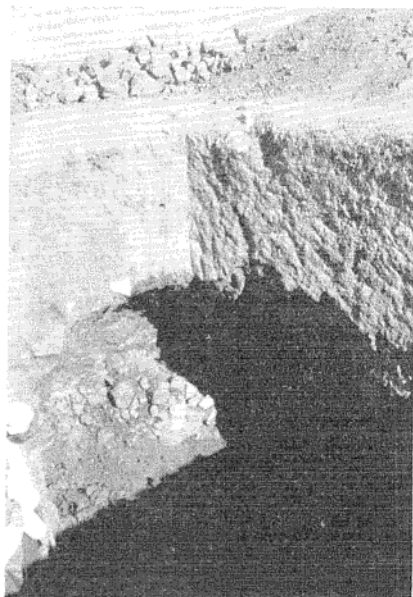


FIG. 50.—Wall in corner of trench in *Tepe II*

temporaneity. As a whole, the objects obtained at those sites where classical material was absent suggest closer proximity to the classical period than to the Hittites.

As to the various occupations of the Kerkenes city, it was built complete by the first-comers, as indicated by the uniform arrangement of the ground plans easily traceable on the surface and by the uniformity of the material taken from many of these structures. A second occupation seems to have taken place during the Hellenistic period, but it may also be possible that the place was still inhabited during the Hellenistic infiltration. A definite reoccupation took place during the Roman period. However, neither the Romans nor any

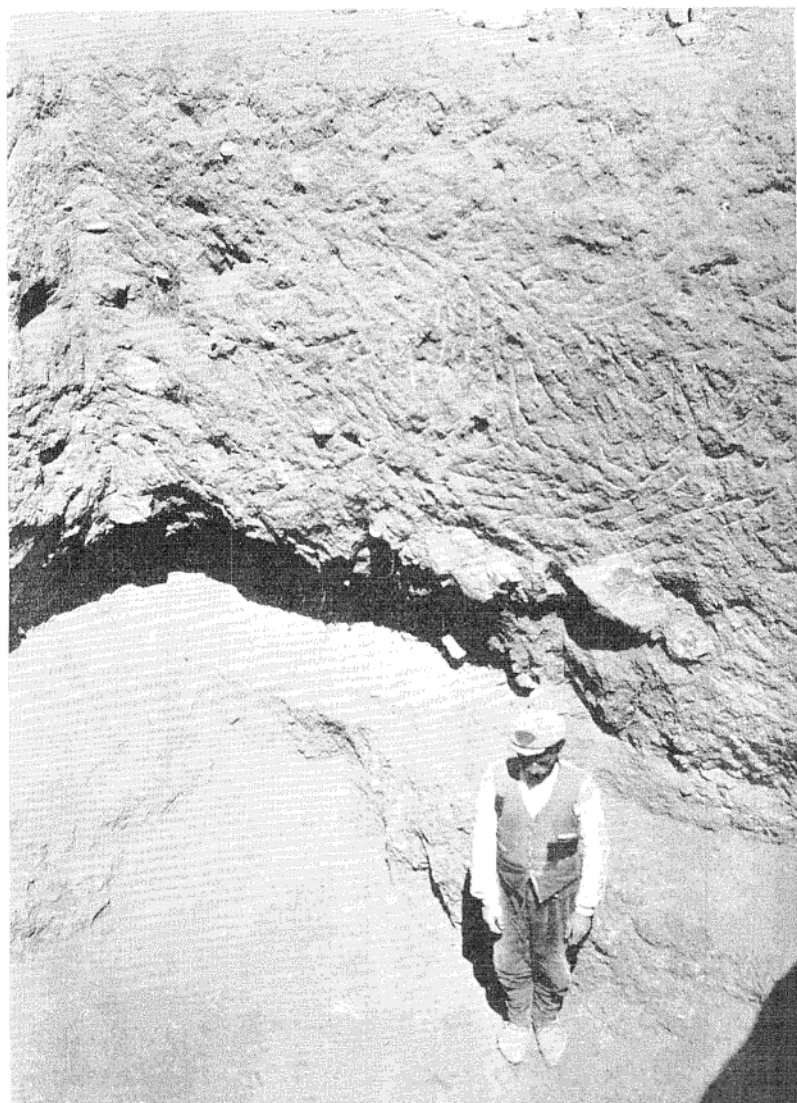


FIG. 51.—Depression below center of *Tepe IV*

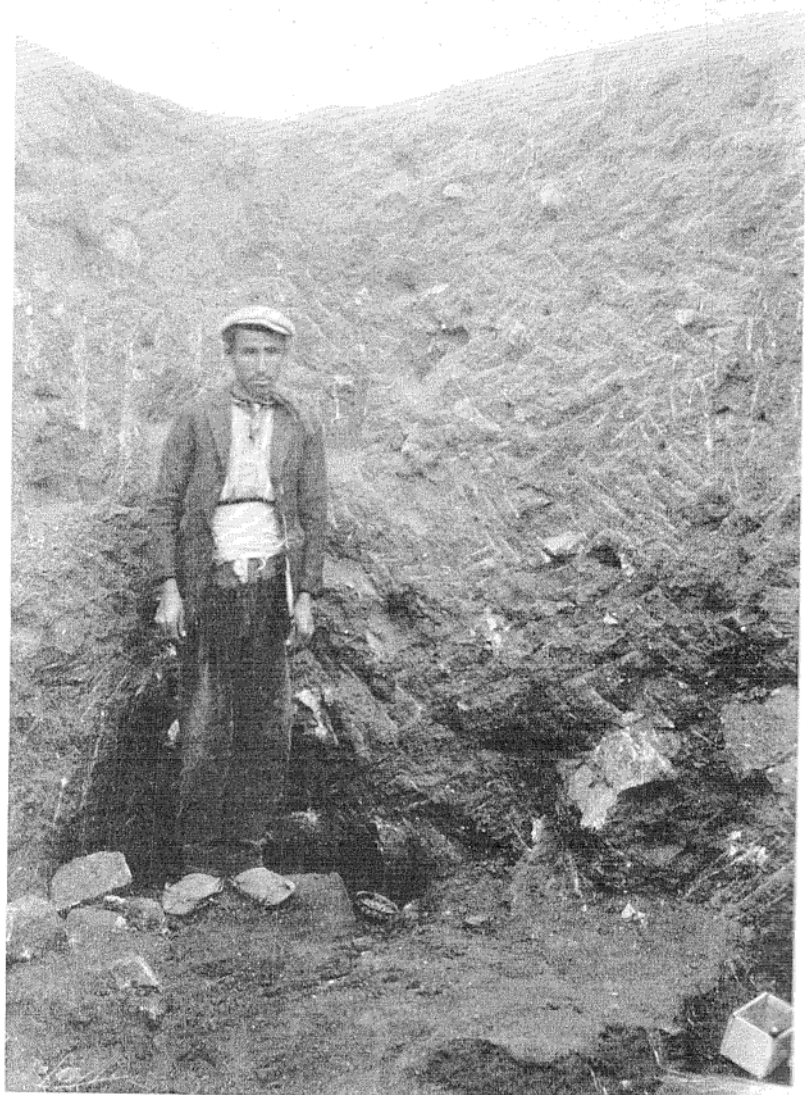


FIG. 52.—Find-spot of copper or bronze vessel in *Tepe IV*

other people succeeding the original builders reoccupied the area in its full extent. During the Roman period the two most prominent sections, Kiramitlik and the *kaleh*, were reinhabited, as Kiramitlik seemingly was during the Hellenistic period. During Byzantine

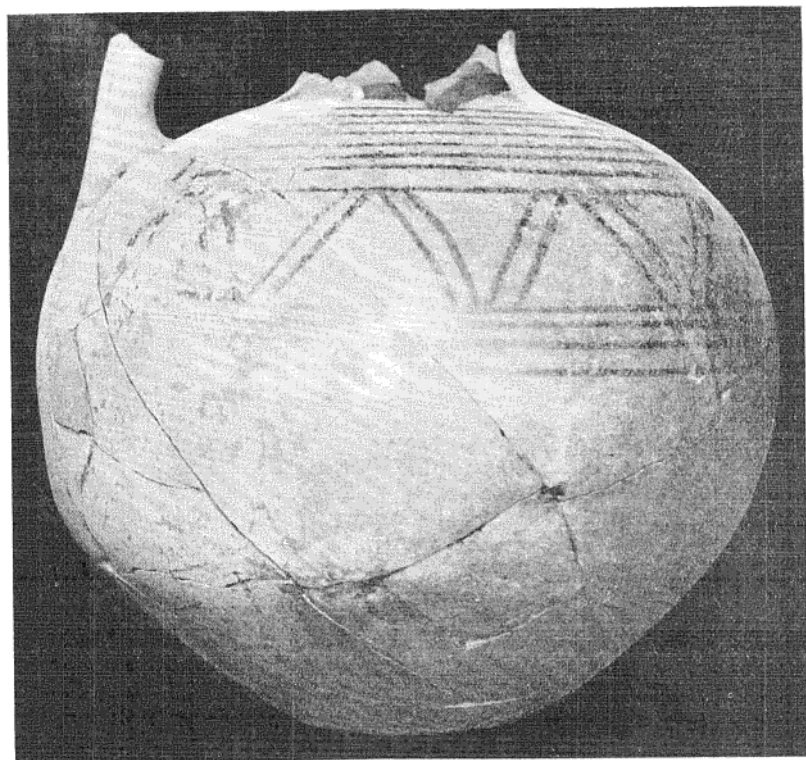


FIG. 53.—Jug or pitcher K 83

times the two dominant knolls were once more occupied; but no traces of Seljuk or Osmanli settlements were noticed.

As to the origin of the city, we know that the Hittites never occupied it; we know the approximate period of its construction and the periods of the succeeding inhabitations; but we do not yet know the name of the people that here built a city larger than the capital of the Hittites. However, time will surely bring more information about this extraordinary place. Such objects as the pottery, weapons,

"whorls," the fibulae, and also the structures, etc., here pictured may serve eventually to link up the Kerkenes city with a datable stratum of some other site where identical objects occur.

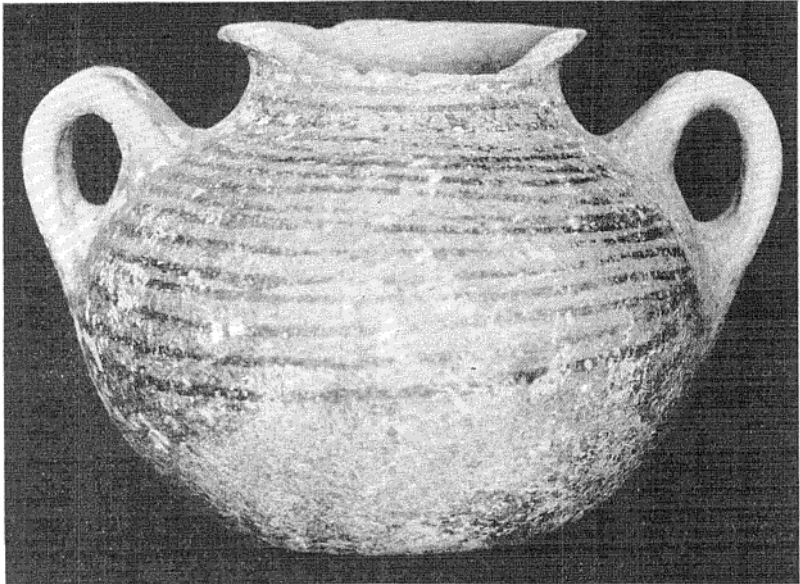


FIG. 54.—Jar K 85

CATALOGUE OF THE CHIEF OBJECTS FOUND

POTTERY

DECORATED VESSELS

K 83 (Fig. 53), from Site 4, floor layer. Jug or pitcher .36+ h.; diam. of body .40; thickness of body .008-.010, of neck .009. One handle, with circular cross-section. Bottom flat, slightly concave. Paste medium, light brown. Surface outside reddish buff, smooth; inside light brown and grainy; wheel marks on upper body. Decorated with a grayish black pigment of somewhat metallic luster. Eight parallel lines, well drawn, encircle shoulder, but are terminated at each side of handle by two vertical lines. Below follows a band of oblique double lines forming a zigzag pattern, bordered below by four more parallel lines. The vessels K 82-85 and 104 were all found in the same room.

K 85 (Fig. 54), from Site 4, floor layer. Two-handled jar .13 h.; diam. of body .175, of rim .096; thickness of body .008, of neck .006. Rim expanding, rounded, with rather sharp edge. Handles on opposite sides of upper body

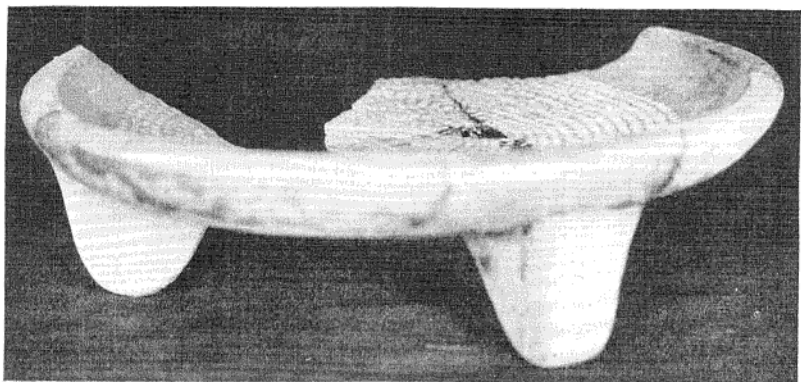


FIG. 55.—Bowl or plate K 82



FIG. 56.—Jar K 104

are flat with slightly depressed center. Bottom flat. Paste medium, gray-brown. Surface outside light brown with light gray and light buff stains; wheel marks at neck. Inside coated with gray. Decorated around neck with a red-brown line over a dark brown zigzag line within borders of the same color. On upper body two panels almost identically decorated with horizontal lines are separated by the handles. In one panel 13 lines are present: from

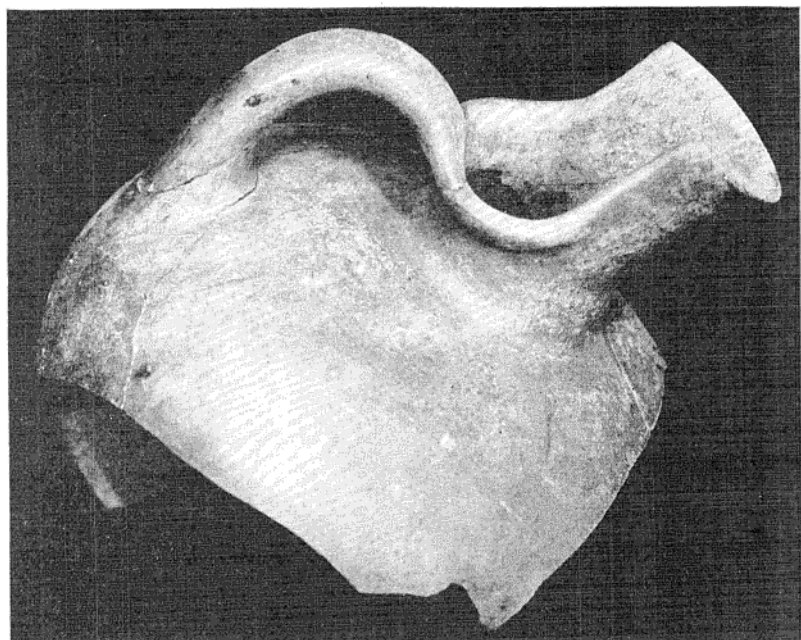


FIG. 57.—Pitcher K 84, turned to show orifice

top downward, 6 red-brown, 3 dark brown, 4 red-brown; the opposite panel contains 14 lines: 7 red-brown, 4 dark brown, 3 red-brown. Red-brown stains on the handles suggest that they too were decorated. The design is crude, the lines not well drawn.

K 82 (Fig. 55), from Site 4, floor layer. Shallow bowl or plate .053 h.: diam. of rim .172; thickness of body .009. Tripod bottom, with feet .014 broad below, .04 thick at top. Paste medium, gray. Surface inside, except for a narrow margin, is honeycombed with circular depressions. Rest of vessel plain and polished. Color dark brown or black.

PLAIN VESSELS

K 104 (Fig. 56), from Site 4, floor layer. Two-handled jar .363 h.; diam. of bottom .15, of body .365, of rim .372; thickness of body .007-.009. Rim

expanding, round. Two flat handles with margins slightly raised on outer surface. Bottom flat. Paste medium, red-brown. Surface outside may once have been covered with a light gray wash, but now for the most part the rough brown-buff base is visible; faint wheelmarks below rim. Interior brown-buff.

K 84 (Fig. 57), from Site 4, floor layer. Pitcher .265+ h.; diam. of body .24; thickness of body .005-.009. One high-curved handle with oval cross-

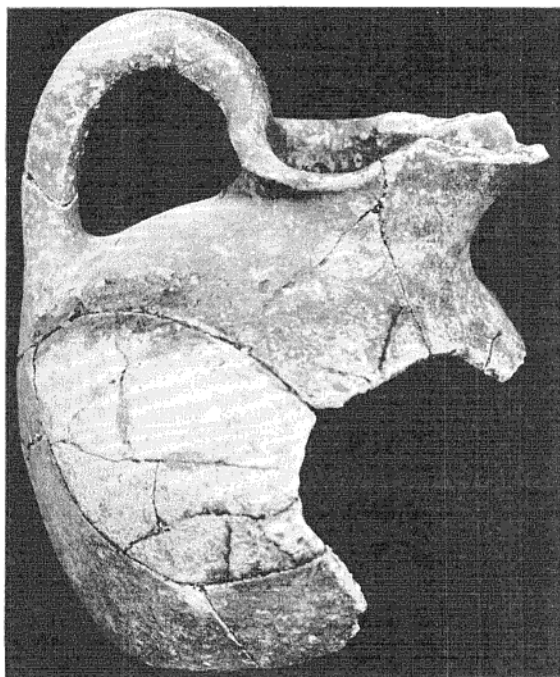


FIG. 58.—Pitcher K 116

section extends from shoulder to lip. Cloverleaf orifice has straight lip at elevated spout, round lip elsewhere. Spout is of broad cut-off beak type, identical with those of our Alishar Period II pitchers and occurring also in Period III. But handle attachment is different. This type of orifice has persisted in Anatolia for several thousand years, since even the present Turkish water bottles of wood have a similar form. But surface treatment and paste (medium, light gray, with exterior turned reddish) of the vessel under consideration are totally different from those of Alishar Periods II and III.

K 116 (Fig. 58), from Site 8, floor layer. Pitcher .235+ h.; diam. of body .206; thickness of body .007. Cloverleaf orifice with elevated spout; lower part has expanding lip, slightly sharpened laterally. One high-curved

handle, almost rectangular in cross-section, extends from upper body to lip. Paste medium, light brown, with stone particles. Surface light buff-brown inside and out; wheelmarks on interior.

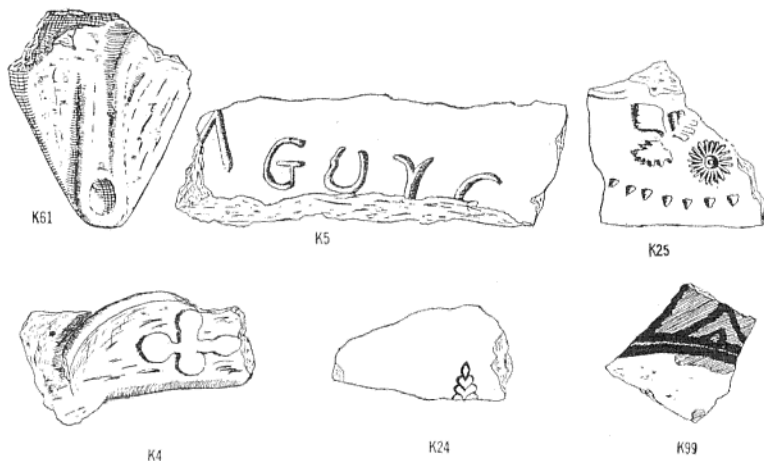


FIG. 59.—Classical or later sherds; scale, 1:2

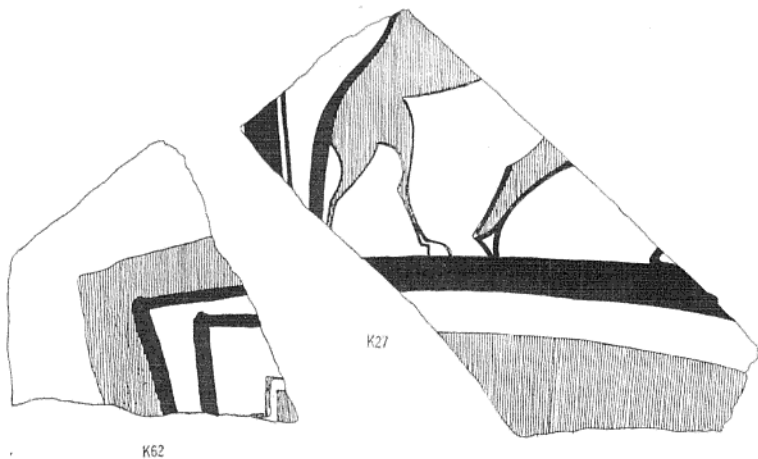


FIG. 60.—Greek sherds; scale, 1:2

SHERDS

K 4 (Fig. 59), from Site 1. Plain, gray, with cross design in relief. Byzantine?

K 5 (Fig. 59), from Site 1. Plain, gray, with fragmentary Greek or Latin inscription.

- K 24 (Fig. 59), from Site 1. *Terra sigillata* with impression. Roman.
 K 25 (Fig. 59), from Site 1, depth 1.30. Arezzo-like sherd with rosette and leaf pattern in relief. Roman.
 K 61 (Fig. 59), from Site 2. Fragmentary lamp, reddish gray. Classical.
 K 99 (Fig. 59), from Site 3. Glazed black and green. Byzantine?

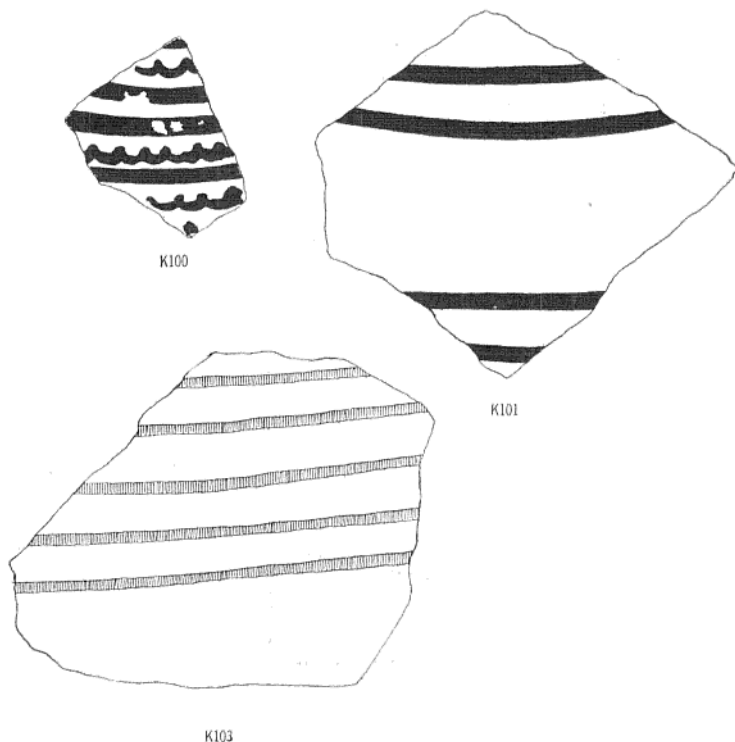


FIG. 61.—Preclassical sherds; scale, 1:2

- K 27 (Fig. 60), from Site 2. Dark brown and red-brown on light buff; smooth; horse and feet of a man. Greek.
 K 62 (Fig. 60), from Site 2. Dark brown and red-brown bands on light buff; smooth; paste medium, light grayish yellow. Greek (cf. K 27).
 K 100 (Fig. 61), from Site 3. Lustrous black-brown on buff.
 K 101 (Fig. 61), from Site 3. Black-brown on dark purple.
 K 103 (Fig. 61), from Site 3. Dark red on brown-red.
 K 105 (Fig. 62), from Site 4. Black-bordered purple bands and purple dots on light brown.
 K 106 (Fig. 62), from Site 4. Brown-red bands on light brown.
 K 107 (Fig. 62), from Site 4. Gray-brown with crosswise incisions.

K 112 (Fig. 62), from Site 12. Dark brown on grayish white.

K 113 (Fig. 62), from Site 12. Red-brown bands on light brown.

K 114 (Fig. 62), from Site 12. Dark brown bands on light buff.

K 115 (Fig. 63), from *Tepe IV*. Three fragments from one vessel, decorated with black-brown and white on a brown-red ground. Fragment *a* has

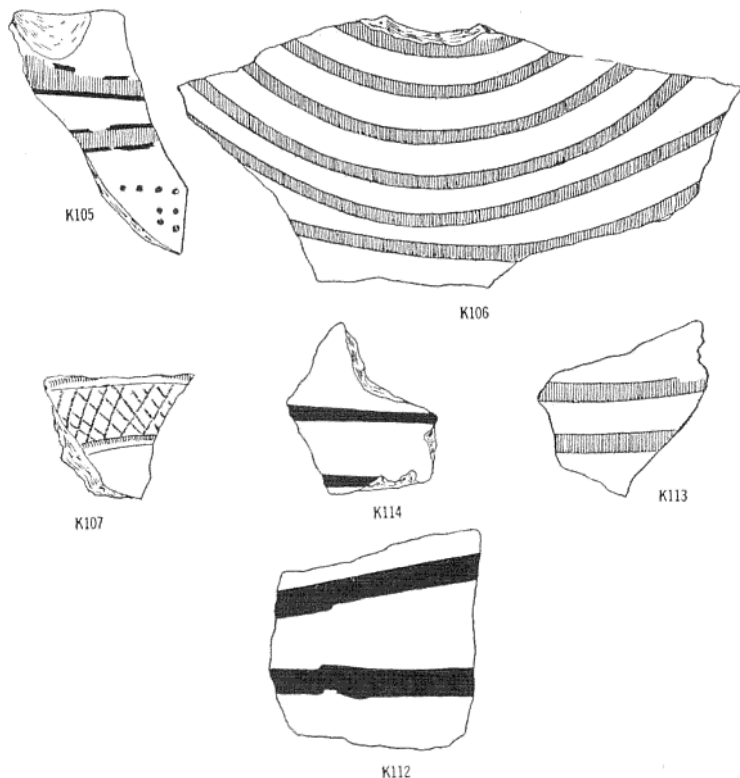


FIG. 62.—Preclassical sherds; scale, 1:2

a white band bordered and crosshatched by black-brown lines and containing white angle-bands also bordered by black-brown lines. Fragment *b* has a band subdivided into white triangles bordering lozenges white, crosshatched, or filled with crosslike patterns; below, solid triangles alternate on opposite sides of a line. Fragment *c* has a checkerboard pattern with alternating white and black-brown fields.

“WHORLS”

All the pottery “whorls” found (Figs. 65 and 66) are biconical and more or less truncated. Their surfaces are rough or smooth, their color is gray.

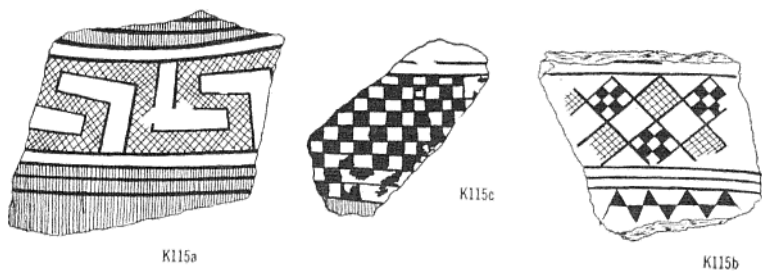


FIG. 63.—Sherds from the necropolis; scale, 1:2

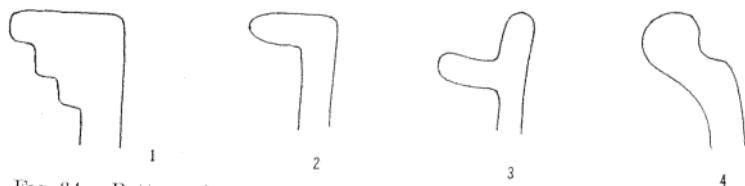


FIG. 64.—Pottery rim types. Types 1-3 were frequent in the classical layer of the Kiramitlik region (Sites 1 and 2) but missing in the downtown section, where Type 4 was frequent instead.

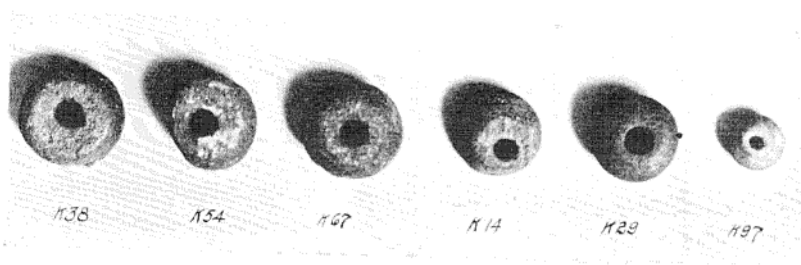


FIG. 65.—Pottery "whorls"

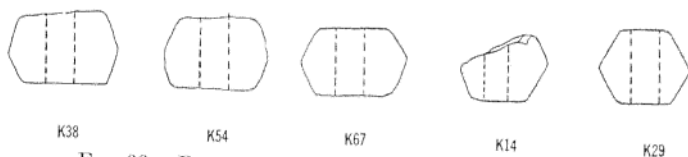


FIG. 66.—Pottery "whorls"; vertical sections; scale, 1:2

brownish yellow, or red-brown. Height varies from .009 to .019, greatest diameter from .016 to .029, diameter of the perforation from .0035 to .007. The following sites are represented:

Site	"Whorl"
3.....	K 14
4.....	K 29
5.....	K 38
8.....	K 54
10.....	K 67
12.....	K 97



FIG. 67.—Pottery "weights"

"WEIGHTS" (LOOM WEIGHTS?)

Both specimens (K 32 and K 49, Fig. 67) were found at Site 4. They are gray and fired. K 32 is .095 high; its base is .061 long and .035 broad. K 49 is .105 high; its base is .060 long and .035 broad. While in the post-Hittite Levels 2 and 3 at Alishar identical fired and unfired "weights" of trapezoid shape were frequent, only one such "weight" was found in the almost certainly Hittite Level 4. The others found at Level 4 had an oval form.

STONE (FIG. 68)

K 79, from Site 13. Ring. Black serpentine(?), smooth.

K 36, from Site 5. Bead. Green and orange, polished.

K 47, from Site 6. Unfinished stamp seal? dark brown-red, smooth; scratchings on base.

K 18, from Site 3. Whetstone? Sandstone, yellowish brown, smooth.

K 55, from Site 8. Whetstone? Sandstone, gray, smooth.

K 72, from Site 11. "Whorl." Black serpentine, smooth.

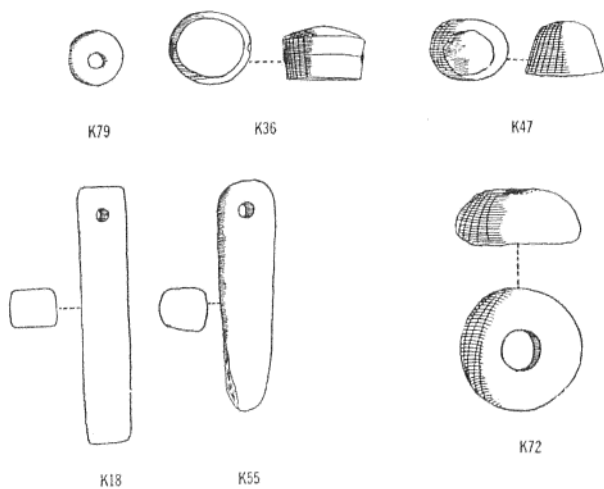


FIG. 68.—Stone objects; scale, 1:2

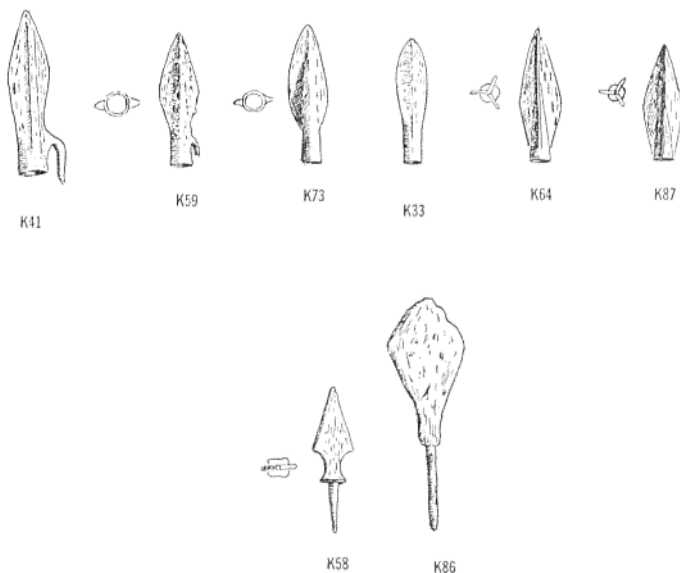


FIG. 69.—Arrowheads of bronze (above) and of iron (below); scale, 1:2

METAL

ARROWHEADS

(Fig. 69)

- K 41, from Site 5. Bronze; lozenge-shaped blade; socket and barb.
 K 59, from Site 10. Bronze; similar to K 41.
 K 73, from Site 12. Bronze; pointed oval blade; socket.
 K 33, from Site 4. Bronze; pointed oval blade; socket; slightly bent.
 K 64, from Site 10. Bronze; three-ribbed blade; socket.
 K 87, from Site 12. Bronze; similar to K 64.

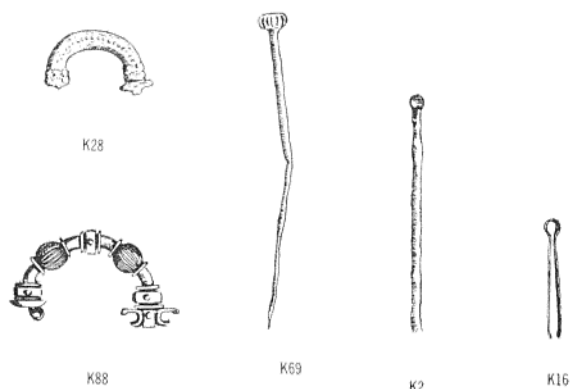


FIG. 70.—Bronze fibulae and pin, iron ear spoon(?), and bronze forceps; scale, 1:2.

K 58, from Site 10. Iron; triangular blade, incurved neck, expanding shoulder; tang.

K 86, from Site 12. Iron; lozenge-shaped blade; tang.

ORNAMENTS

K 69 (Figs. 70 and 71), from Site 10. Bronze pin with melon-shaped head.

K 68 (Fig. 71), from Site 10. Bronze pin (or needle?), head missing.

K 17 (Fig. 71), from Site 3. Bronze pin covered with a bluish green pigment.

K 43 (Fig. 71), from Site 5. Bronze pin covered with a green pigment.

K 28 (Figs. 70 and 71), from Site 4. Bronze fibula ornamented with raised dots.

K 88 (Figs. 70 and 71), from Site 12. Bronze fibula elaborately composed.

RINGS AND BANDS

- K 12 (Fig. 71), from Site 2. Bronze ring, small.
 K 13 (Fig. 72), from Site 3. Iron finger ring?
 K 91 (Fig. 71), from Site 12. Iron earring? Ends overlap.
 K 42 (Fig. 72), from Site 5. Iron ring, flat.
 K 34 (Fig. 72), from Site 4. Iron band, too small for a bracelet?
 K 35 (Fig. 72), from Site 4. Iron band with remains of 3 tacks protruding.

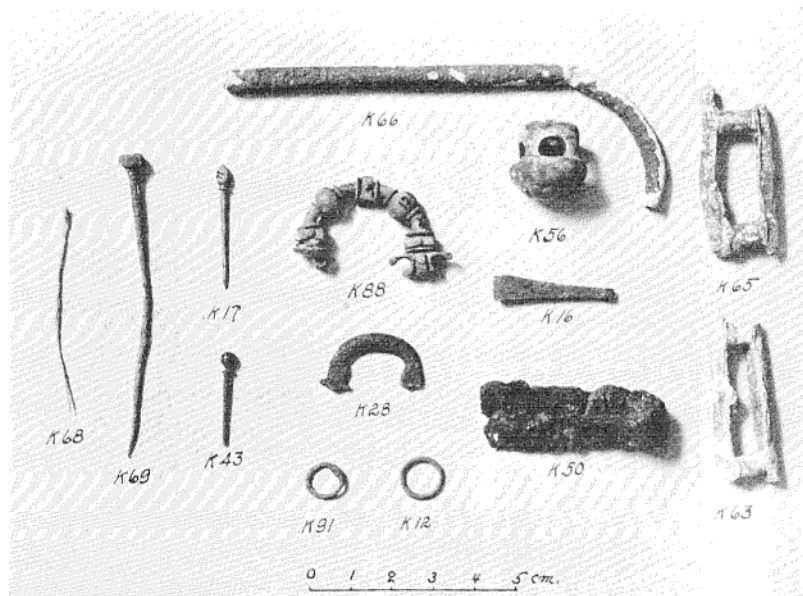


FIG. 71.—Bronze pins, fibulae, tube, etc.; bronze and iron rings and forceps; and lead pot-menders.

TOILET ARTICLES

- K 16 (Figs. 70 and 71), from Site 3. Bronze forceps.
 K 50 (Fig. 71), from Site 4. Iron forceps.
 K 2 (Figs. 70 and 72), from Site 1. Iron instrument with somewhat spoon-shaped head (ear spoon?).

IRON IMPLEMENTS

(Fig. 72)

- K 76, from Site 12. Pick, heavily oxidized.
 K 15, from Site 3. Blade with one cutting edge; tanged.
 K 20, from Site 3. Blade?
 K 53, from Site 8. Blade.

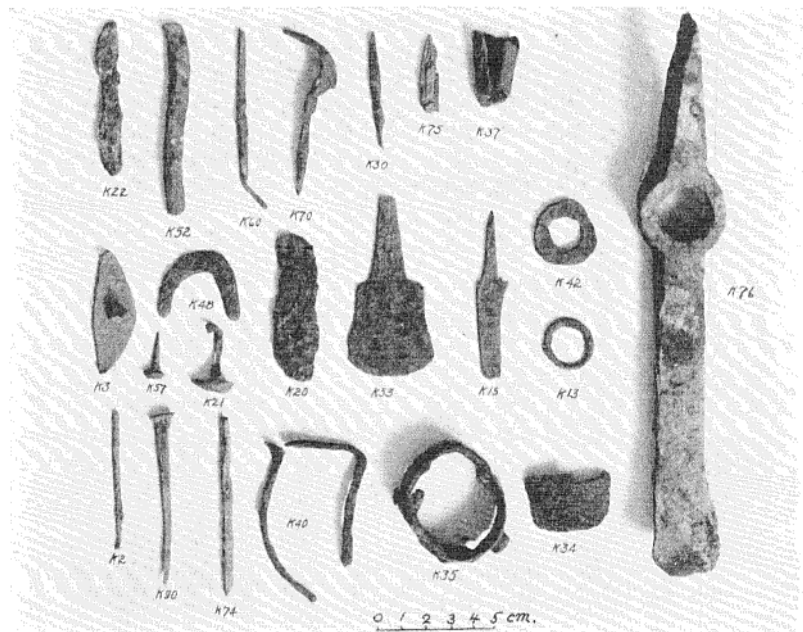


FIG. 72.—Iron objects

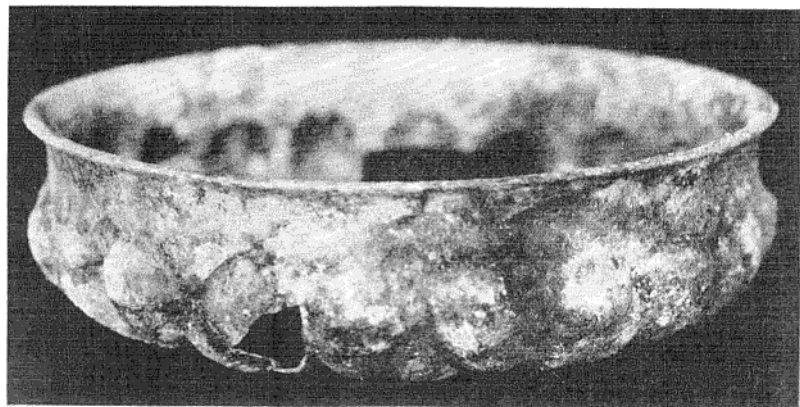


FIG. 73.—Copper or bronze bowl K 80

IRON NAILS, TACKS, AND FRAGMENTS

(Fig. 72)

K 90, from Site 12. Nail.

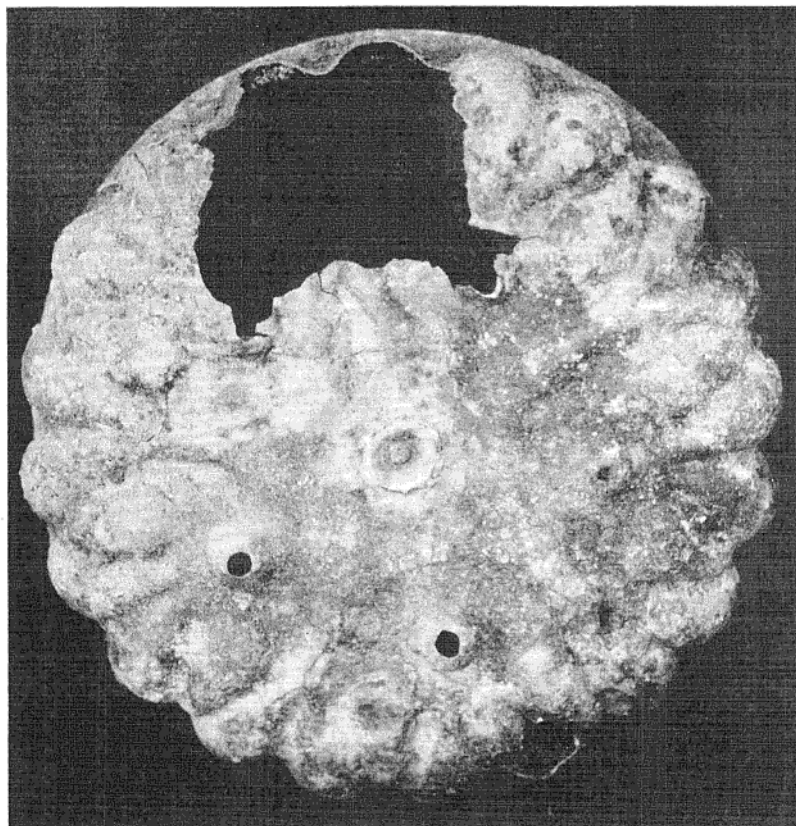


FIG. 74.—Copper or bronze bowl K 80

K 3, from Site 1. Tack with large elongated head, the ends of which are turned down.

K 21, from Site 3. Tack with point bent upward.

K 57, from Site 10. Tack.

K 22, from Site 3.

K 52, from Site 4.

K 60, from Site 10.

K 70, from Site 10.

K 30, from Site 4.

K 75, from Site 12.

K 37, from Site 5.

K 48, from Site 6.

K 74, from Site 12. Becomes thinner toward one end.

K 40, from Site 5.

MISCELLANEOUS OBJECTS

K 63 (Fig. 71), from Site 8, and K 65 (Fig. 71), from Site 10. Lead arrangements for repairing pots.

K 66 (Fig. 71), from Site 10. Copper or bronze tube, bent, split lengthwise.

K 56 (Fig. 71), from Site 8. Bronze; semiglobular head on short hollow cylinder with four lateral perforations.

K 80 (Figs. 73 and 74), from *Tepe IV*. Copper or bronze bowl .038 h.; diam. of orifice .141. Ornamented in *repoussé* work with rounded triangles around lower part of body and a five-pointed star in center of bottom. Between the points are semiglobular protuberances, perforated apparently by wear. Attachment of foot is indicated by a pin projecting upward through a disk or washer in center of bottom and connected inside with a globular button coated with remains of gold.

COINS

The coins found on Kerkenes Dagh will be discussed by Mr. Edward T. Newell in a paper to be published later.