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Anatolian Studies, Vol. 8. (1958), pp. 127-156.

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EXCAVATIONS AT HACILAR

FIRST PRELIMINARY REPORT

By JAMES MELLAART

THE VILLAGE OF HACILAR is situated in the Vilayet of Burdur in South-west Anatolia, about 25 km. west of Burdur itself on the main road to Yeşilova and Denizli. The chalcolithic site lies about 1.5 km. west of the village and just beyond the orchards, which are irrigated by a plentiful spring at the foot of a great limestone crag which overlooks the village. It is this spring which since neolithic times has been the main reason for more or less continuous occupation in this region. Apart from the neolithic and early chalcolithic site at Hacilar there is a large Early Bronze Age mound on the northern outskirts and a classical site to the south-west of the village.

The prehistoric site is an inconspicuous mound, about 150 metres in diameter, rising to a height of not more than 1.50 m. above the level of the surrounding fields (Fig. 1 and Pl. XXIXa). The entire surface of the mound is under cultivation and a series of depressions show the holes made by a local antique-dealer in search of painted pots and small objects.¹ About 1 km. west of the site runs the Koca Çay, the ancient Lysis, and on the eastern scarp of this river valley lies the cemetery of the Early Bronze Age settlement.² Not a single burial has yet been found in the chalcolithic or neolithic levels of our site and it is therefore not unreasonable to suggest that its cemetery also may eventually be located there.

Situated half-way between two good supplies of water, the chalcolithic site of Hacilar also commands two main roads leading from Burdur to Yeşilova and Tefenni respectively, both regions in which other sites of the same culture have been known since 1952.³

The climate of this upland region, which is nearly 1,000 m. above sea-level, is much less harsh than that of the Central Anatolian Plateau owing to the proximity of the Mediterranean. Although the summer temperature is relatively high, thunderstorms are frequent and the winters are mild, with much rain but little snow.

¹ I have since traced about half a dozen complete pots, painted in the Hacilar I style, one sitting headless figurine, three clay heads of figurines (Fig. 11 : 1, 2, 4), two stamp-seals, a clay "altar", about a dozen stone axes, celts, polishers, a small stone bowl, complete and supported by three feet, found in House B II and stolen from the excavations and about a dozen fragmentary plain pots and painted sherds into a private collection in Istanbul, the owner of which kindly gave me permission to publish them.

² Also ransacked by the peasants, and said to consist of pithos graves. About a dozen red-brown or greyish-black burnished vessels ; beak-spouted jugs, miniature vessels of the same shape, Kusura cups, all decorated with grooved ornament and white-filled incised miniature jars. This pottery closely corresponds to that of Beycesultan XVI and XV, approximately contemporary with the late Troy I and the early Troy II period. It is unpublished and in the same private collection in Istanbul. Two bronze pins, obtained from the local antique dealer for recording, belong to a later phase of the Early Bronze Age. These will be published by Mr. D. Stronach.

³ *AS.* IV, 1954, p. 180, map 2.

The excavation was carried out under the auspices of the British Institute of Archaeology at Ankara and was made possible through a generous grant from Mr. Francis Neilson in memory of Professor John Garstang. The writer was in charge, accompanied by Mrs. Mellaart, and was assisted by Miss Elizabeth Beazley, architect, Mr. David Stronach, field assistant and photographer, and Bay Osman Aksoy, the representative of the Turkish Government. A foreman, Veli Karaaslan, and three trained workmen from Beycesultan were employed, as well as eighteen unskilled labourers from Hacilar. Work started on 6th September and continued till 23rd September, 1957. Mr. and Mrs. Seton Lloyd and Professor F. Schachermeyr of Vienna were welcome visitors to the excavation.

The expedition is much indebted to the Vali of Burdur, Bay Mehmet Ali Çeltik, for permission to stay in the schoolhouse at Hacilar and for his assistance in settling the question of crop compensation, and to all the other local officials in Burdur and at Hacilar who helped us in every possible way during our stay at Hacilar. Among the many friends I must single out Bay Ibrahim Şadi Balaban, history teacher in Burdur, who in December 1956 first drew my attention to the site.⁴

OUTLINE OF THE FIRST CAMPAIGN

The two main objectives of the sounding at Hacilar were, first to determine the character of the culture to which the painted pottery vessels acquired in December 1956 belonged, and, if possible, to date it in terms of neighbouring cultures ; and secondly to establish a sequence of occupation levels down to virgin soil. Within a fortnight both these objectives were accomplished.

A trial trench (A), 20 metres long and 5 metres wide (Fig. 1), was opened on the highest part of the mound, in the area where according to the peasants complete painted pots had been found. At less than half a metre below the surface the remains were discovered of a building which had perished in a conflagration. In order to complete the plan of this building, another trench (B), measuring 17 by 8 metres, was dug, leaving a 3-metre interval between the two trenches. The B trench revealed another burnt building of the same level, and when the baulk was removed we were fortunate in uncovering a third house. A hole dug by the peasants through its floor left us in no doubt that this was the place from which they had extracted the four complete pots. Two other areas, C and D, dug subsequently, showed that the house-complex found in A and B was surrounded, at least on three sides, by large open spaces. In C a corner of another house was found, the full excavation of which must await a further season.

A sounding, made beneath the floor of the house in area B, reached virgin soil at 5 metres below the highest part of the mound, without striking ground-water. In the last few days of the dig a check was made on the stratification obtained in area B, by digging below one of the

⁴ The survey which led to the discovery of Hacilar was made possible through a research grant from the Central Research Fund of the University of London.

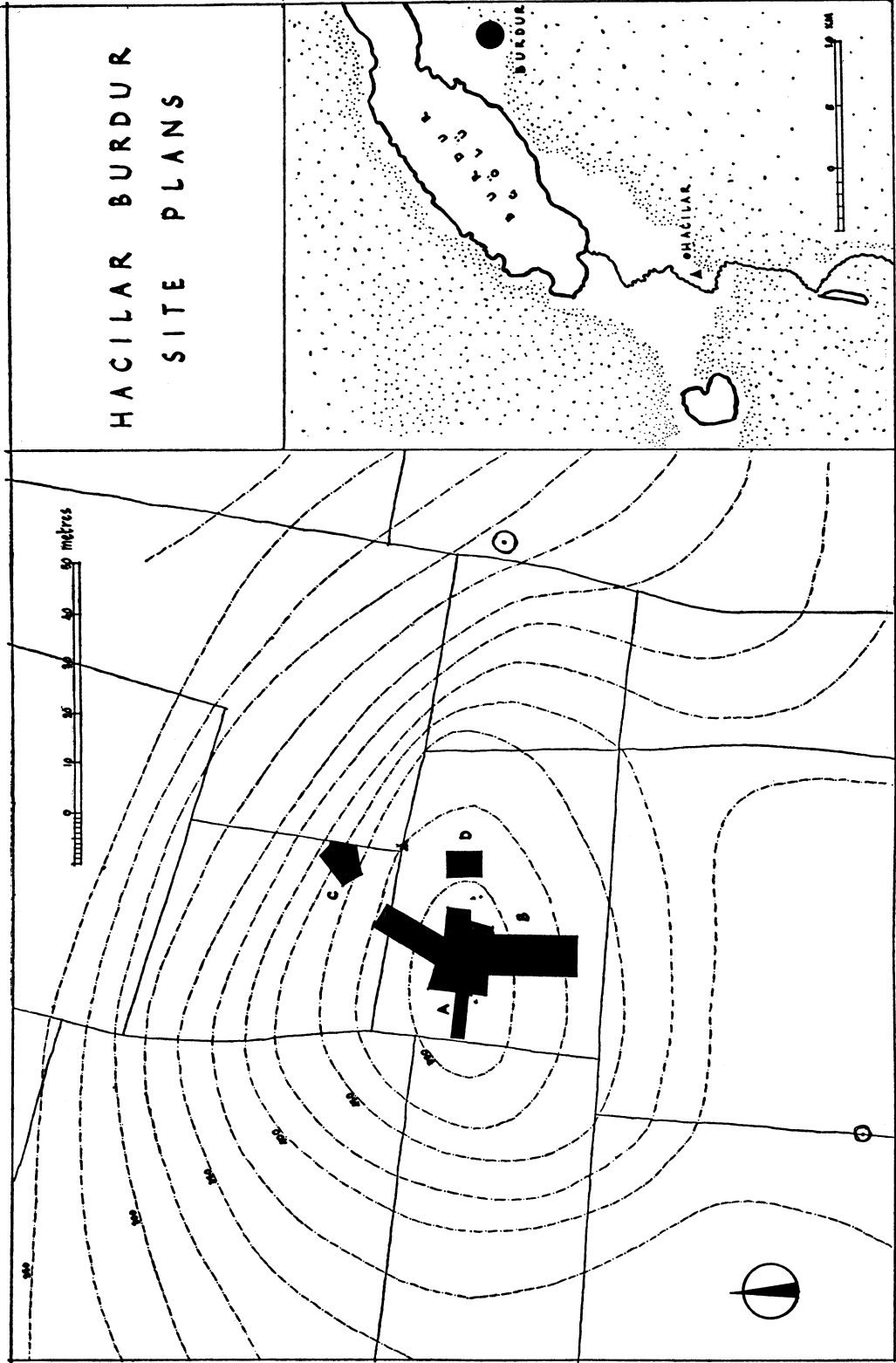


FIG. 1.

houses in area A, but this sounding could not be carried down to virgin soil in the allotted time.

Stratification (Fig. 2)

Within the 5-metre deposit of stratified remains, we have been able to distinguish eight (or probably nine) building-levels, and there are indications that when more extensive excavations are carried out, this number will increase.

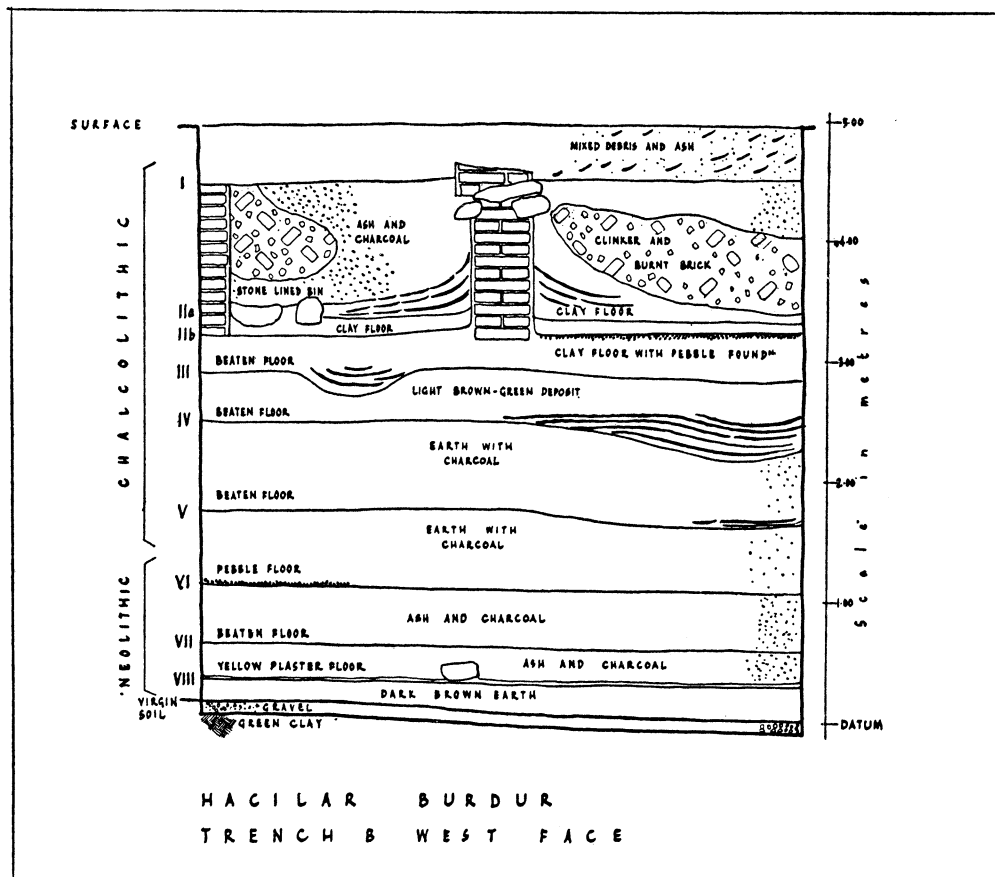


FIG. 2.

Two different periods are represented on the mound, an upper one with at least five building-levels (I-V) with painted and monochrome *early chalcolithic* pottery, and a lower one with three or four floor-levels (VI-IX) producing only unpainted *neolithic* pottery.

SUMMARY DESCRIPTION OF THE DIFFERENT BUILDING-LEVELS

Level I

The top building-level was found to be badly denuded and frequently disturbed as the result of ploughing and stone-robbing. Only disconnected stretches of stone foundations of walls, often nearly 1 metre thick, remained

without any associated floors. The pottery appearing on the surface and of a type not encountered in our second (burnt) building-level must belong to these denuded buildings. There are faint indications that what we have provisionally called Level I may in fact be found to consist of more than one level, when excavations are resumed on a wider scale.

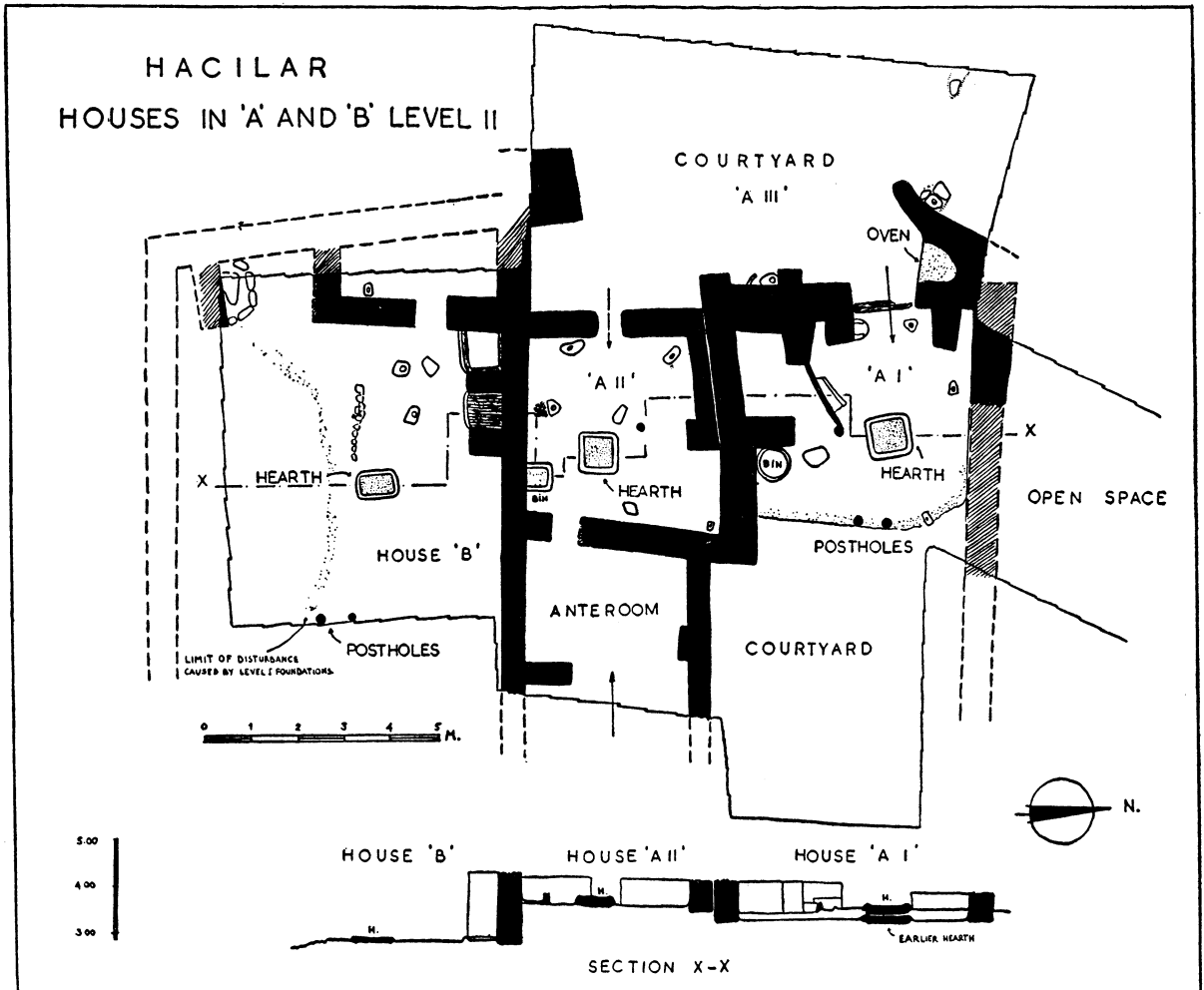


FIG. 3.

The orientation of the Level I buildings is totally different from those of Level II and stone foundations are a feature confined to Level I at Hacilar. Rooms appear to have been of rectangular shape and there is good evidence to suggest that the final occupation of the settlement ended with destruction by fire. The site was thereafter deserted and never reoccupied.

Level II

A complex of three adjacent houses, surrounded by courtyards or open spaces, stood on top of the mound (Fig. 3). House A II/1 and house A II/2 were preserved to a height of 0.50 m. (Pl. XXIXb), but

house B II had two walls standing 1.50 m. high (Pl. XXIXc). These houses were built of large mud-bricks, measuring 0.40 m. by 0.22 m. by 0.10 m. and none of the walls had stone foundations. Corners were rounded off and mud-plaster covered the walls. The house in B had a floor of beaten earth, but both houses in A had gypsum plaster floors. The floor of the A II/1 house had been renewed not less than four times and an earlier hearth was associated with the lower two floors. Fragments of a flat roof, made of mud on a bedding of reeds, found in the debris of this house, showed four successive coats of mud, equalling a thickness of 0.15 m., and prove conclusively that this house had been inhabited for some considerable length of time.

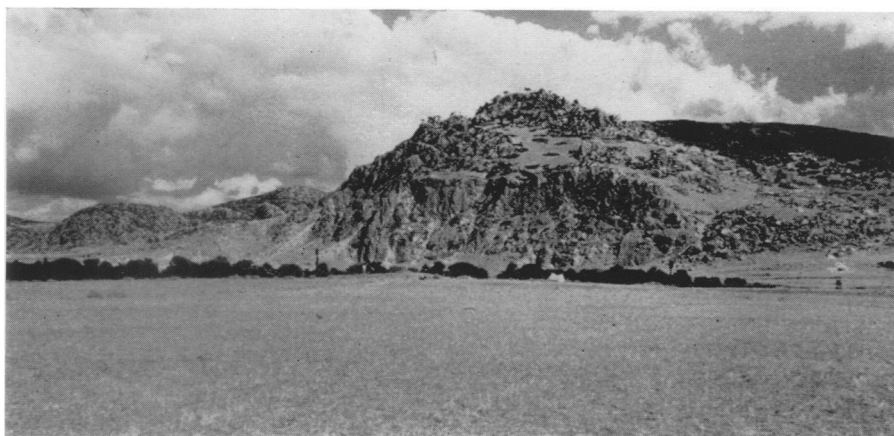
The A II/1 and the B II houses seem to have been of the same general plan. A walled courtyard lay on the east side of a one-roomed house of rectangular, almost square plan. On the courtyard side two posts supported a porch, whereas the centre of the room was marked by a raised rectangular hearth with marked kerb, built up in the familiar Anatolian way, in which a layer of pebbles is laid on a foundation of larger stones and the whole is covered by a thick layer of plaster. Internal buttresses, irregularly placed, provided the room with a series of cubicles or niches. These buttresses extended up to the roof and must have supported the main roof beam.

The main room of the A II/2 house was similar to that of its northern neighbour, but unlike it, had no porch : instead there was another small room. The two houses have one feature in common : between the hearth and the nearest buttress there was a vertical post. Both rooms had a door in the back wall giving access to a common backyard or open space which contained a domed oven, twice rebuilt, and a screen wall behind which there was a mortar and pounder. A similar back door was found in the B II house, but it is not known whether it led into a courtyard or another room. A feature common to both this and the A II/1 house was the existence of a screen extending from near the hearth to the nearest buttress or back wall, built of thick plaster in the A II/1 house, but with a stone foundation in the other (Plate XXIXc). A most interesting feature of the B II house was the presence of clay kerbs in front of the niches formed by the two internal buttresses and the traces of wooden floors in them, suggesting that these niches were used for storage. The south wall of this house had unfortunately fallen a prey to building operations in the Level I period, so that it is not known whether it also was provided with buttresses.

It is clear from the plan that the middle (A II/2) house was built later than its two neighbours. It was wedged in between them, taking full advantage of already existing walls and unlike the A II/1 house it shows no signs of any prolonged occupation, having but a single floor. The available evidence suggests that it was built towards the end of the Level II period.

Contents and Use of these Houses

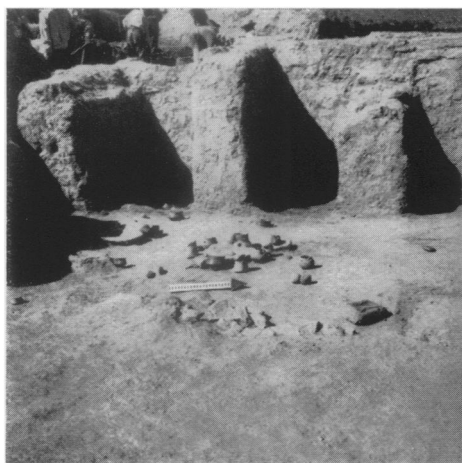
Owing to the destructive fire which ended the Level II occupation of the site, most of the domestic equipment was found intact in these



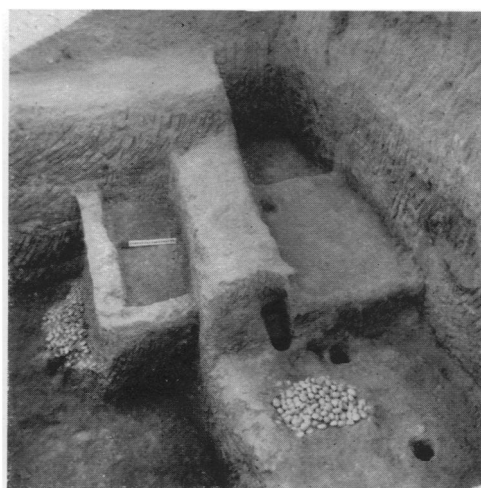
(a) View of Hacilar from the West. The site is the low rise on either side of the tent.



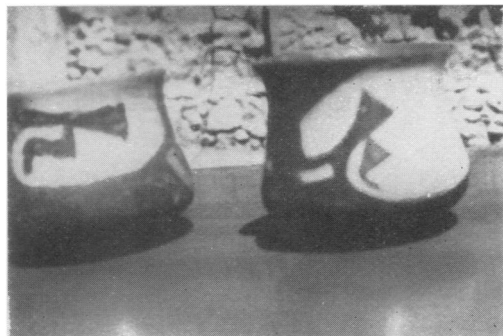
(b) Houses in A. House A II/1 on the left, House A II/2 in the foreground, seen from the north-west.



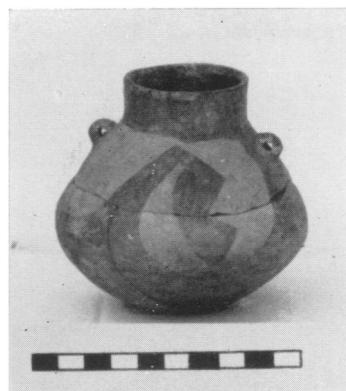
(c) House B II. View of internal buttresses, with hearth on right.



(d) Level IV. Wall, post-holes, and floor of house with bin on left and pile of sling-stones in front. On left below bin, more sling-stones on Level V floor.



(a) Two cups from House A II/2. Present whereabouts unknown.



(b) Jar from House B II.



(c) Three cups from House A II/2.



(d) The same cups, seen from the other side.

houses. Potstands were found grouped around the hearths ; both painted and monochrome wares as well as ground and polished stone axes, bowls and palettes were plentiful. Clay ladles, bone awls and spoons, stone beads, and simple flint, chert and obsidian knife blades were found in profusion, but two main categories of objects proved of the greatest interest : the clay figurines and the ubiquitous querns, mortars and pounders. Fragments of baked clay steatopygous standing female figurines, naturalistically modelled, were not uncommon. Some of these, when complete, must have stood nearly a foot high. Querns of all sizes and shapes were found in profusion⁵ in all three houses, together with their rubbers or pounders. Some have a hole going through them, others are fixed in the floor by means of clay plaster, but with only a single exception—a large saddle quern in house A II/1—all showed traces of the material that was ground or pounded in them, red or yellow ochre, many cakes of which were found lying on the floors beside them.

Only in house A II/1, in which the only quern of normal corn-grinding type was found, was there any provision for the storage of grain, in the form of an unbaked clay bin, hardened by the fire, but empty.

When one compares the contents of these three houses with that of the small room found in house C II, with its numerous clay bins and storage vessels stacked to the brim with carbonised wheat, barley, vetch and lentils, not a grain of which was found in the three houses in areas A and B, and considers the excessive number of querns and mortars for the preparation of red and white paint as well as the mass of fine painted cups, all of the same shape, which were found in house A II/2, none of which showed any sign of wear, let alone mending, the conclusion to be drawn is obvious : these houses were the potters' workshops. The pottery found in these houses, cups in one, bowls and jars in the two others, suggests some specialisation, and its quality surpasses anything found so far in the two other trenches, where broken and mended pottery as well as more obviously domestic vessels were much more in evidence.

The Lower Early Chalcolithic Levels III-V

Owing to the restricted area of the sounding, about 8 metres square, the architectural character of the lower chalcolithic (and neolithic) levels could not yet be satisfactorily determined. A burnt clay floor, a hearth and two postholes were found in Level III, but, though architectural remains were poor, numerous rubbish pits in what was probably a courtyard provided ample material for the pottery sequence.

Level IV was represented by an unburnt mud-brick building, most of which lay beyond the area of our sounding (Plate XXIX*d*). A long outer wall and part of the back wall of a house of rectangular plan was found. On what seems to be the entrance side, the long wall ended in a kind of *anta*, faced by a wooden post. Continuing the line of the wall a

⁵ There were not less than six of them in house A II/2, and at least four in each of the other two houses of the complex.

row of four other postholes appeared in front of the building, possibly the remains of a screen or fence. Built against the outer side of the wall was a mud-brick bin of rectangular plan and within the screen, immediately in front of the entrance, lay a heap of pebbles of the size used as sling ammunition.

The pottery showed a distinct change towards more geometrical ornament, with a corresponding change in shapes, but it retained its high quality. Figurines still occurred, as in the later levels.

A clay floor with an enormous deposit of sling stones, extending below the bin and outer wall of the Level IV building, was found in Level V. Masses of painted and unpainted pottery were found in the open space, which as in Levels III and IV appears to have been occupied by a courtyard. Naturalistic figurines still persisted.

The Neolithic Levels VI-IX

A series of three superimposed floors (VI-VIII) and a thin stratum of earth and pottery (IX) directly overlying the rock, were excavated in the lowest 1.50 m. of the sounding, which at this stage was too restricted to produce any architecture. Three postholes with the charred remains of posts and beams were associated with a burnt floor of Level VI. Of the two earlier floors, that of VII was made of pebbles, suggesting a courtyard or open space, but that of VIII was of thick creamy plaster, which must have been inside a house.

One of the main tasks for a future season is to excavate these easily accessible neolithic levels on a larger scale than has yet been practicable anywhere else in Anatolia.

There is a marked change in culture in these neolithic levels, perhaps most noticeable in the pottery. With the exception of about a dozen stratified painted sherds with simple designs from the last neolithic level (VI), painted pottery is not found. Monochrome burnished wares with new shapes and tubular vertically placed lugs take its place, but even a cursory glance shows that this neolithic monochrome ware is the ancestor of the chalcolithic monochrome. Continuity is also attested in the figurines, for well stratified fragments of large standing figurines of a type familiar in the chalcolithic levels were found in Level VI. One other feature characteristic of all the neolithic levels is a profusion of animal bones, some of great size.

THE POTTERY

The pottery found at Hacilar can be divided into two groups, *painted* and *unpainted* wares. The latter are covered with the same red or brown paint as is used for painting designs on the painted wares. Technically there is not the slightest difference, both wares being hand-made and highly burnished. Heavier burnished wares with or without slip occur among domestic pottery in Level II, but coarse ware is not found before Level I.

The proportion of monochrome to painted ware in the various levels is as follows :—

	Monochrome	Painted
Neolithic IX–VII . . .	100%	—
VI	nearly 100%	a dozen pieces
Chalcolithic V, IV . . .	50%	50%
III, II	50%	50%
I	70%	30%

Painted Pottery from Levels II–V (Figs. 4:1–7, 5 and 6)

The painted pottery found at Hacilar is of a superb quality, as fine as and often better than Halaf ware from Northern Mesopotamia or the Middle Bronze Age ware of Kültepe II, to mention two outstanding ceramic products of the ancient Near East.

The pottery is made of a local clay containing golden micaceous particles, to which fine white or black grits are added as a *dégraissant*. Chopped straw is never used for this purpose. The walls of the vessels are thin, on the average 0.4 cm. thick, invariably hard-fired, but often with a grey core. A white slip was applied more often than not and was always highly burnished with a piece of bone or pebble. Burnishing marks are none too frequent; most pieces have a brilliant polish. The paint, always some shade of red, is often lustrous; if not, this was remedied by an overall burnish of the painted vessel. Unburnished or matt-painted ware is not found at Hacilar. Polychromy is likewise unknown in Levels V–II, but variations in colour occur as the result of firing or subsequent burnishing. A curious effect was obtained by burnishing painted pots before the paint and/or slip had dried. In this “wet-burnished” technique the outlines of the painted patterns became blurred, giving it a remarkable textile-like appearance. This technique, much employed in Levels V and IV (“red on orange/yellow”), survived into Level I, but only in the initial phases of the Early Chalcolithic period does it appear to have been produced deliberately.

Variations in the colour of slip and paint allow a fairly large range in “colour-schemes” within what is essentially a red-on-white style. As some of these may eventually turn out to be of chronological significance, always making due allowance for overlaps, we may here list the following variants :—

- (1) Scarlet or orange-red on yellowish-cream—most common from V–I.
- (2) Scarlet on dead-white. Characteristic of II and III.
- (3) Crimson on ivory-grey. Characteristic of II only.
- (4) Scarlet on buff/light brown, without slip. II only.
- (5) Yellow on greyish-white. Very rare, II only.
- (6) Light brown on cream. Fairly common, but especially in IV.
- (7) Scarlet on orange-yellow. Very common from III to V.

- (8) Brown or red-brown on yellow-cream. Very common in IV and V.
- (9) Yellowish-brown " marbled " ware, resembling 6th century Lydian. Not uncommon in Level II, but not found in any of the other levels.
- (10) Pink on greyish-white. Rare, but present in all levels.

Note.—Black is not used ; whenever it is found the colour is secondary, the result of accidental burning.

Shapes and Arrangement of Decoration and Style

The following notes on the most common shapes of levels V–II are somewhat provisional as all the material has not yet been fully studied. In Levels V and IV bowls of various sizes predominate (Fig. 6), but funnel-necked jars, jugs with oval mouths and small cups of oval shape are already present. The lowest part of the vessel is invariably coated in paint and the patterns cover only the upper part, on high bowls in two horizontal registers, on low bowls in one. The patterns fully illustrated in Fig. 6, need no further description, but are arranged vertically or diagonally. They form a continuous pattern around the vessel. Notable is the closeness of the patterns, which enclose the vessels as in an envelope of patterned fabric. I am inclined to believe that most of these geometric patterns had their origin in textiles. Although patterns in levels V and IV are predominantly geometric, there are a number of pieces in these lowest chalcolithic levels with curvilinear and unusual designs, such as become characteristic of the IIIrd and IIInd levels. Another feature of the Hacilar V–II pottery is the use of a " solid " rather than a " linear " style. The latter is only found in Level V, but even there it is in the minority. Nevertheless, its presence in the earliest chalcolithic levels is of importance in that it provides a link with the contemporary painted pottery cultures in the Konya Plain, Cilicia and Northern Mesopotamia.

The shapes of levels II and III (Figs. 5 and 4 : 1–7) are characterised by :—

- (a) An increase in size, offering greater scope for decoration.
- (b) Specialisation in the development of certain shapes, already present in the earlier levels, but occupying a relatively minor position. Among these, the oval cup with pinched mouth, the carinated bowl, the oval jar with oval mouth and two spouts and the ovoid jug with or without a pinched oval mouth, take the place of the bowls of levels V and IV, without ousting them altogether. It seems then that the greatest development took place in vessels used for pouring.

16. Fine scarlet on yellow slip.

17. Jar neck. Red brown on cream slip.

18. Bowl fragment of shape like no. 19. Crimson paint on cream slip.

19. Discoloured in fire, but probably red on cream.

20. Jar neck. Red brown on yellowish cream slip.

21. Shoulder of oval jar. Brown on yellow slip. Found with no. 10.

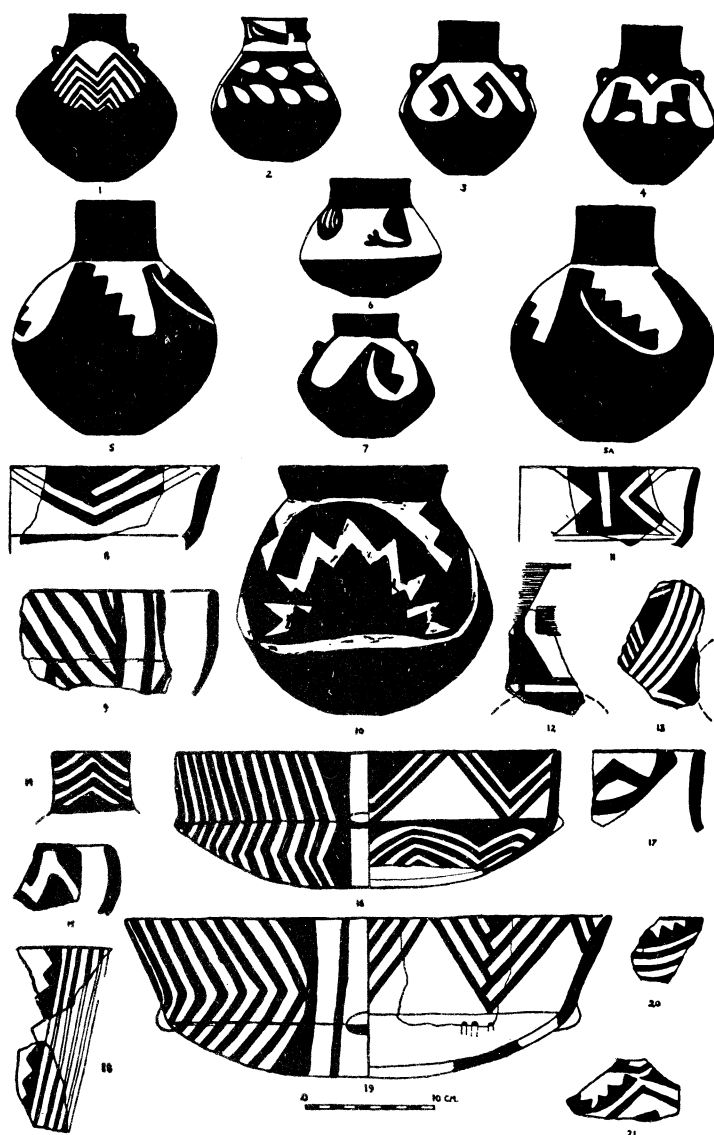


FIG. 4. Early Chalcolithic painted pottery from Hacilar II (nos. 1-7) and Hacilar I (nos. 8-21).
(Nos. 1, 3-5 reconstructed from fragments. Nos. 1-5 are drawn half scale. All pottery is buff in colour with mica or white or black grits.)

1. Two-handled jar. Light brown paint on cream slip. Wet-burnished in parts. A II/1. HB/57/150.
2. Jug. Crimson paint on cream slip. Mottled black in fire. Slightly oval shape with pinched oval mouth. A II/2. HB/57/85.
3. Two-handled jar. Scarlet paint on yellow slip. B II. HB/57/147.
4. Two-handled jar. Pink on cream slip. A II/1.
- 5, 5A. Large handleless jar. Scarlet paint on yellow slip. A II. HB/57/146.
6. Small jar. Crimson paint on cream slip. A II/2. HB/57/151.
7. Small jar with two lugs. Pink on cream. B II. HB/57/77.
8. Scarlet on cream slip.
9. Light brown on yellow slip.
10. Jar with oval body and mouth. Side view. Rather coarse wet-burnished. Light brown to red thick paint on cream slip. From a hole dug by peasants in February 1957.
11. Very thick scarlet paint on yellow slip.
12. Centre-piece of a bowl like nos. 16, 19. Dotted line indicates curve of base. Scarlet on buff slip(?).
13. Centre-piece of bowl like nos. 16, 19. Pink (faded crimson) on buff slip(?).
14. Jar neck. Scarlet on cream.
15. Bowl with curving rim. Light brown on yellow.

Parallel with the development in shape went one of design and arrangement. The geometric style of levels V and IV gives way to bold geometric compositions, no longer arranged in several registers, but taking full advantage of the larger surface to be decorated. Much use is now made of "reserved fields" and it is often difficult to say whether the design was meant to be "positive" or "negative" (e.g. Fig. 5 : 11 and 12, where the "negative" pattern bears some resemblance to a stag and ram's head respectively). Even more typical of this new geometric style is the curvilinear one, now distinguished by some extraordinary motifs (Fig. 5 : 1-7, 13-15, 22, and Fig. 4 : 3, 4, 6, 7). These motifs are nearly always framed in a field (the so-called metope decoration) eminently suitable to oval vessels. In many cases (Fig. 5 : 1a and 1b) the two fields bear different motifs. What these extraordinary motifs meant, and their frequency leaves little doubt that they had a meaning, we cannot even guess. A tribal emblem has been suggested ; that may be so, but it does not explain what the extraordinary motifs mean. Other resemblances may be noted between Fig. 4 : 3, and the distorted spirals one sees in rugs and textiles. The spiral is known at Hacilar as early as Level V, but is never much used. Its appearance in one or two cases in the same position as the twice repeated motif in Fig. 4 : 3, may indeed suggest that this is the Hacilar variant of the "spiral", but that does not explain the motifs of Fig. 5 : 1, 4, 6, 13, etc., and Plate XXXa. I am much more inclined to believe that these motifs are originally of zoomorphic origin and as a parallel I may point out the many curiously contorted animal motifs on Anatolian, Caucasian and Turkestani rugs and *kilims*,⁶ while admitting that the question must remain *sub judice*.

Painted Pottery from Level I (Fig. 4 : 8-21)

The pottery from the latest building-level (or levels) differs from the earlier painted pottery of levels V-II in the following respects. The clay is often sandy, producing a crumbly fabric. The firing is less hard, so that thick black cores are very common, though not predominant. The quality is on the whole less good, but still excellent in comparison to Cilician chalcolithic pottery. The shapes are generally different from those in Level II and often larger and heavier. The quality of the paint is often less good, and darker colours, such as browns and blacks, are now used side by side with red. There seem to be some definite attempts at polychromy with some bowls bearing a decoration in red paint on the interior and black on the exterior, or vice versa. The patterns are predominantly

⁶ Neugebauer, R., and Örendi, J. *Handbuch der Orientalischen Teppichkunde* (Leipzig, 1909), Motifblatt I-VI, VIII-IX.

18. Very fine deep red on coffee-coloured slip. Red inside. A II/1.

19. Scarlet on ivory coloured surface (no slip), red inside. A II/2. HB/57/137.

20. Scarlet on cream slip. A II.

21. Red varying to brown on cream slip. A II.

22. Scarlet paint on yellow-cream slip. Red in. B III (burnt floor).

23. Scarlet on orange-yellow slip. B III (burnt floor). HB/57/136.

24. Scarlet on orange slip. B III (burnt floor). HB/57/95. Slightly oval in shape with a different pattern on the other side. Wet-burnished.

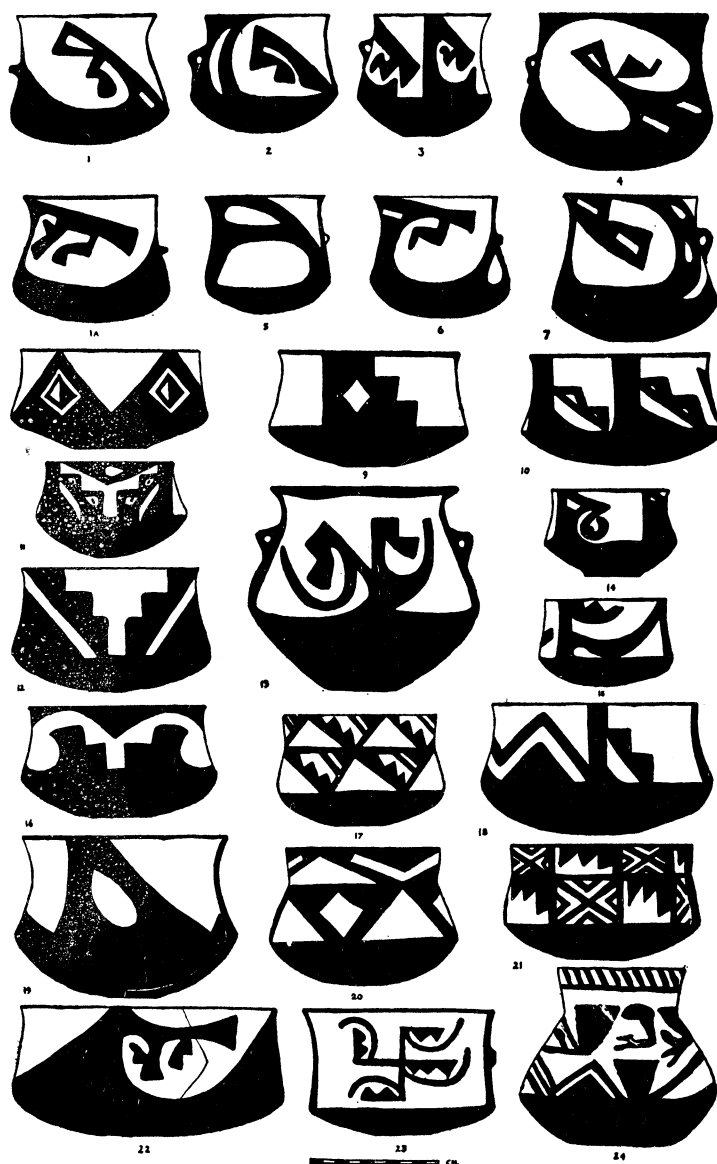


FIG. 5. Early Chalcolithic painted pottery from Hacilar Levels II (nos. 1-21) and III (nos. 22-24).

(All pottery is brilliantly burnished.)

- 1, 1a. Thick red paint on polished buff ground (no slip). A II/2. HB/57/125.
2. Light brown paint on dead white slip. A II/2. HB/57/128.
3. Fine red brown on yellow slip. Wet-burnished. A II/2. HB/57/126.
4. Crimson paint on ivory (light grey) slip. B II.
5. Light brown on whitish cream slip. A II/2.
6. Crimson paint on ivory slip. A II/2. HB/57/127.
7. Scarlet paint on yellow slip. A II/2. HB/57/124.
8. Deep red on yellow slip. B II. HB/57/82.
9. Scarlet paint on dead white slip. A II.
10. Scarlet paint on dead white slip. A II. HB/57/145.
11. Deep red on cream slip. A II.
12. Scarlet on white slip. Light brown inside. A II.
13. Fine deep red paint on yellow slip. Pinched oval mouth and body. A II/2. HB/57/135.
14. Red-brown on white slip. B II. HB/57/140.
15. Red to light brown paint on yellow slip. A II/2. HB/57/88.
16. Scarlet on cream slip. B II.
17. Chocolate-brown on light yellow slip. C II.



FIG. 6. Early Chalcolithic painted pottery from Hacilar levels V (nos. 1-13) and IV (nos. 14-30).
(All pottery is highly burnished.)

1. Scarlet paint on creamy white slip.
2. Fine scarlet paint on ivory slip.
3. Red brown paint on cream slip. BV. HB/57/120.
4. Fine crimson paint on cream slip.
5. Light red on cream slip. Wet-burnished.
6. Orange paint on cream slip. Wet-burnished.
7. Fine brown paint on cream slip.
8. Pink paint on cream slip.
9. Red brown paint on white slip.
10. Crimson paint on ivory slip. Partly wet-burnished. BV. HB/57/142.
11. Scarlet paint on cream slip. BV. HB/57/143.
12. Fine red on yellow slip.
13. Crimson on ivory slip.
14. Very fine deep red on orangy white slip. Slightly wet-burnished.
15. Dark brown paint on buff unslipped surface.
16. Brown paint on pale buff unslipped surface.
17. Dark red paint on cream slip.
18. Fine brown paint on yellow slip.
19. Red on yellow slip.
20. Fine red on orangy yellow slip. Wet-burnished.
21. Red brown on yellow slip.
22. Red paint on unslipped buff surface.
23. Brown paint on yellow slip. Wet-burnished.
24. Fine red on yellow slip.
25. Fine red on orange yellow slip. Slightly wet-burnished.
26. Very fine red brown paint on creamy white slip.
27. Brown paint on yellow slip. Slightly wet-burnished.
28. Reddish-brown paint on creamy white slip. Wet-burnished. A IV. HB/57/141.
29. Fine red-brown paint on creamy white slip.
30. Red brown paint on cream slip. An extreme case of wet-burnished ware.

linear : chevrons, horizontally or vertically arranged, and loops and garlands are most common. Groups of lines bordered by a series of triangles and elaborate centre-pieces on the interior of large shallow bowls and dishes now appear for the first time. The curvilinear and the bold geometric style of the previous period are virtually gone. A vessel like Fig. 4 : 10 may in fact belong to an impoverished phase of Hacilar II pottery, such as is found in certain deposits which appear to be later than the fire which destroyed the Level II settlement. If future excavations confirm the existence of such a phase, for which we have as yet insufficient evidence, there would have been an interval of unknown duration between the destruction of Level II and the establishment of newcomers with new pottery, building techniques and reorientation of the settlement in Level I. For it is clear that the painted pottery from Hacilar I did not develop from that of the previous level. Where these newcomers came from is an open question. On several sites in the nearby plain of Tefenni Hacilar I pottery was found,⁷ but its presence there may be explained in terms of the same movement which brought the Level I people to Hacilar. Other sherds of Hacilar I ware were found at Sürmeli Hüyük⁸ at the southern end of the Upper Meander Valley, but again these do not help us in determining the origin of the Hacilar I people.

That the newcomers mixed with remnants of the old population is suggested by such features as "wet-burnished" pottery, overall burnish, certain shapes (including ovoid pouring vessels) and most of all by the continuity in the unpainted monochrome wares. If we may judge from the material found on the mound of Bucak, 40 km. south of Burdur on the road to Antalya,⁹ unpainted pottery of Hacilar II and I type outlasted the painted pottery tradition, after the final desertion of Hacilar.

Monochrome Burnished Wares

Although, for convenience, it is desirable to divide the monochrome ware into a neolithic and a chalcolithic group, there is strong evidence for a continuous development, uninterrupted by the destruction of Level VI and the establishment of a painted pottery tradition. Technically the only difference is that the slip of the neolithic pottery is replaced by a coat of paint in the chalcolithic monochrome ware. The result is the same in any case and there is evidence that this change, more apparent than real, took place as early as the last neolithic level (VI), in which about a dozen fragments of "wet-burnished" sherds with red or brown vertical horizontal stripes make their first appearance.

The Neolithic Pottery (Fig. 7)

But for the painted sherds mentioned above, all neolithic pottery at Hacilar is burnished slipped or unslipped monochrome ware. In both colour and shape a gradual development can be traced. The earliest

⁷ Tefenni Hüyük, Hasan Paşa Hüyük, *AS. IV*, 1954, pp. 181 f., figs. 55, 56.

⁸ *AS. IV*, 1954, fig. 60.

⁹ Material found during the survey referred to in note 4. Still unpublished and in the British Institute of Archaeology at Ankara.

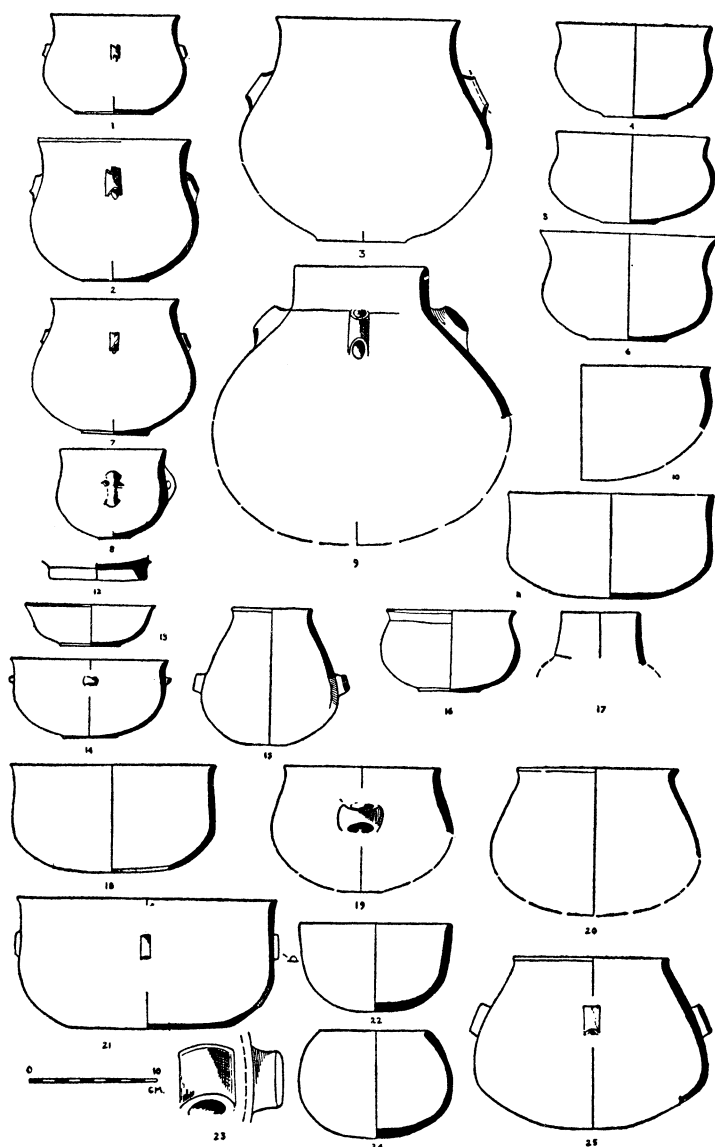


FIG. 7. Neolithic pottery from Hacilar levels VI-IX.

(Nos. 1-11, Hacilar VI; 12-17, Hacilar VII; 18-24, Hacilar VIII; 25, Hacilar IX.)

(All pottery is buff, grey or black ware, with small white grits. It is hard fired, and provided with a fine burnish, whether slipped or not.)

1. Fine red slip, mottled black and buff, black interior. Two lugs.
2. Fine brown slip outside, red-brown inside. Two lugs.
3. Unslipped light brown burnished ware. Two lugs.
4. Fine salmon coloured slip, mottled yellow and brown. Grey inside.
5. Fine pink, mottled buff slip.
6. Wine-red above, buff below the carination. Red inside.
7. Brownish-black.
8. Black ware with straw temper. Olive green to brown burnished. Import?
9. Deep red burnished slip. Jar with at least four vertical tubular lugs.
10. Greyish buff.
11. Red, mottled yellow and black. Grey inside.
12. Cream burnished ware.
13. Pale orange, mottled buff and cream slip, inside and out.
14. Buff, mottled cream and grey, inside and out.
15. Red-brown burnished.
16. Fine cream slip, inside and out.
17. Light red, mottled light brown.
18. Fine light brown slip.
19. Cream to light grey slip outside, black inside.
20. Fine greyish-black burnished.
21. Light grey burnished.
22. Light grey inside, cream coloured outside.
23. Light grey to cream burnished.
24. Dark grey mottled black outside, black inside.
25. Whitish-cream slip. Faintly mottled yellow and grey near rim.

pottery from levels IX and VIII is *cream or light grey* burnished ; in Level VII *mottled* and fine *black-topped* vessels predominate, and in Level VI monochrome *red* (often pink or dark red) wares are more common than mottled ware. With the change in colour goes a change in shape : hole-mouth bowls, large shallow bowls with vertical sides and jars without a marked rim are most frequent in Levels IX and VIII (Fig. 7 : 18-25). Cups with gracefully swung profiles, and globular jars bearing lugs with cutaway ends (in contrast to the straight-ended ones in VIII and IX) are the leading shapes in levels VII (Fig. 7 : 12-17) and especially VI (Fig. 7 : 1-11). A similar development is manifest in the bases ; from rounded and flat bases, there is a gradual change to the ring and the disc-base. Much of this neolithic pottery, especially that from the lowest two levels, looks remarkably like a deliberate imitation of marble vessels, fragments of which were not infrequent in the neolithic (and common in the chalcolithic) levels at Hacilar. This may indicate the possibility that a pre-pottery neolithic also existed in South-western Anatolia at a period earlier in date than Hacilar IX. There is evidence for such cultures at Jarmo and at Jericho and now also at Gremnos Maghula and at Sesklo in Thessaly.¹⁰

Monochrome Wares from the Early Chalcolithic Levels V-II (Fig. 8)

No break marks the development of monochrome wares and many of the shapes of the latest neolithic pottery are indistinguishable from those of Level V. The mottled ware has now disappeared and all the pottery is of a deep red colour. New shapes appear, such as funnel-necked jars, cups with oval mouths and "altars" on four feet. Several low pedestals with perforations in the side occur for the first time and plastic decoration, already found in Level VI, is not uncommon. One sherd bears in low relief a figure of an ibex. A new type of handle, so characteristic of the chalcolithic period at Hacilar that we may call it the "Hacilar" handle (Fig. 8 : 36, 40) is found for the first time. In Hacilar IV the monochrome ware has a somewhat orangy-red colour, but shapes differ little from those of the previous level. Only in Hacilar III are there more profound changes, which are also notable in the painted wares. Buff monochrome is now as common as red. There is a tendency to make larger shapes ; large carinated bowls and oval cups are most frequent, just as in the painted pottery. Monochrome ware is very well represented in Hacilar II and among the many shapes found some are decorated with plastic ornament, including a representation of the human figure with incised eyes. Ritual vessels of this period include a rhyton in the form of a bull's head (Fig. 10 : 6, and Plate XXXIIc).

Of importance is the frequent occurrence of coarsely "wiped" bowls (Fig. 8 : 23) which link the unpainted pottery of Hacilar II to that of I and to the probably Middle Chalcolithic site of Bucak. A characteristic of the red, brown and dark grey monochrome wares of Level I is a notable coarsening in fabric, which for the first time in the history of Hacilar

¹⁰ *Germania* 34 (1956), p. 208 ff., and *The Times*, 10th December, 1956.

pottery may be designated as coarse ware. Shapes most typical of this last phase of occupation at Hacilar are jars with two "Hacilar" handles, round or ovoid mouths and bodies and "wiped" bowls. Among the finer burnished specimens from Level I are numerous dishes of the same shapes as are common in the painted ware. Some of these are coated in red paint outside and decorated on the interior.¹¹

FIGURINES (Figs. 9-11 and Plate XXXII*a* and *b*)

Figurines of baked clay are fairly common in the chalcolithic levels at Hacilar and are already found in the latest neolithic occupation. They all represent female figures with marked steatopygous features and with one exception (a sitting figure) they belong to the standing type. A peculiarity of the Hacilar figures is their size: not a single one is less than 12.5 cm. high and the larger ones are up to 30 cm. in height. One disadvantage of this is that they are easily broken and we have not found a single complete figurine. The figurines are made in the same way as the pottery; naked figurines are red or cream slipped and burnished, dressed ones painted in the normal red-on-white technique. The majority show a very well modelled naked female figure with sagging stomach and steatopygy (Fig. 9: 1, 2; 10: 2). Others are shown wearing garments of various sorts; a patterned robe (Fig. 10: 1), a sleeveless bodice or jacket (Fig. 10: 4) or a "grass skirt" and boots (Fig. 10: 5). One figurine from Level IV (Fig. 10: 2) has no arms, but usually these are well indicated, either resting on the hips (Fig. 9: 1) or supporting the breasts (Fig. 9: 2). A long leg and fragment of a figurine with characteristic sagging belly were found in Level VI, showing that the type goes back to the neolithic period at Hacilar. From this same level came a very fine small standing figurine, made of mother of pearl (Plate XXXII*c*), perforated in the middle and presumably part of a necklace, some stone

¹¹ Pottery of this type was also found at Çaykenari Hüyük II, north-east of Korkuteli (*AS. IV*, 1954, p. 184, figs. 57 and 58). It is tempting to see in these bowls with pattern on the inside the prototypes of the pattern-burnished wares of Besikatepe, Kumtepe Ia and Tigani in western Anatolia and of Tarsus in Cilicia, but at least a millennium seems to separate these two classes of pottery, and nothing has *yet* been found in western Anatolia to fill this gap.

14. Yellow, mottled light brown burnished bowl, incised on rim after firing. Interior red.

15. Fine light red polished slip. Possibly an oval cup.

16. Brown burnished miniature oval cup.

17. Tall jar with oval mouth and three vertically perforated lugs. Red polished ware. Half the scale of the other vessels. B III.

18. Fine red burnished slip. Incised after firing.

19. Orange red burnished slip.

20. Orange red burnished slip.

21. Fine red, mottled black and yellow (like the neolithic wares).

22. Clay with gold mica. Orange, mottled yellow burnished.

23. Clay with gold mica. Red-brown slip, bone-burnish.

24. Fine red burnished.

25. Fine deep red burnished slip.

26. Fine red burnish, mottled black and buff. Brown inside.

27. Red washy slip, burnished.

28. Burnished orange slip.

29. Red-brown burnished.

30. Fine red, mottled black, burnished.

31. Pale red burnished.

32. Fine brown burnished paint, top left corner cream slipped.

33. Red-brown burnished.

34. Buff burnished.

35. Buff burnished.

36. Light red burnished.

37. Red-brown burnished.

38. Fine light red burnished.

39. Deep red burnished.

40. Dark red burnished.

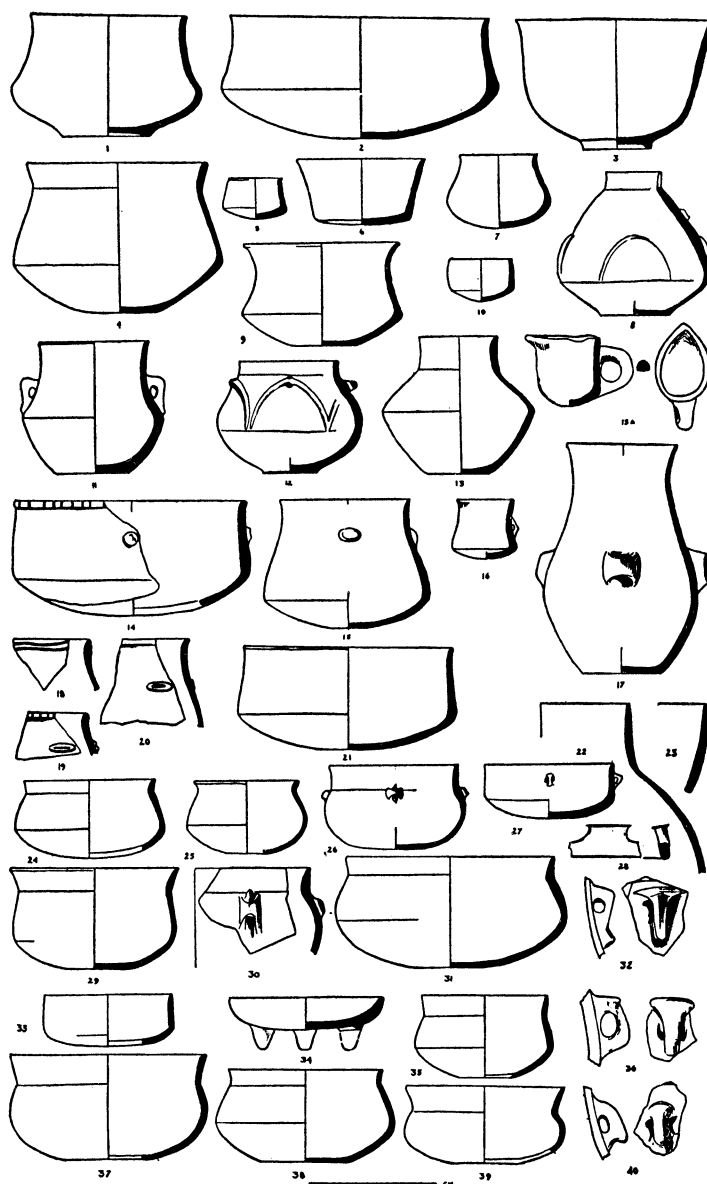


FIG. 8. Burnished wares from the Early Chalcolithic levels V-II at Hacilar.

(Nos. 1-13a, Hacilar II ; 14-17, Hacilar III ; 18-32, Hacilar IV and 33-40, Hacilar V.)

(All wares are buff, with white or black grits and slipped.)

1. Fine red, mottled buff burnished. B II. HB/57/83.
2. Very fine brown burnished bowl with marks of bone-burnishing. A II/2.
3. Unslipped buff ware with reddish polished surface. A II/3. HB/57/90.
4. Brown polished. C II. HB/57/73.
5. Fine buff polished. A II/2. HB/57/91.
6. Fine light red to buff polished. A II/1. HB/57/76.
7. Coarse smoothed reddish ware. A II/2. HB/57/64.
8. Buff polished ware. Jar with four plastic crescents and stump of plastic attachment, not a handle. B II. HB/57/70.
9. Deep red burnished slip. A II/2.
10. Red polished, mottled buff. A II/2. HB/57/31.
11. Buff polished. B II. HB/57/78.
12. Unslipped polished buff ware. Four plastic ridges and vertically perforated lugs. B II. HB/57/79.
13. Red polished. A II/2. HB/57/89.
- 13A. Fine brown burnished. A II/2. HB/57/121.

beads of which were found with it. On its head it appears to wear a bun of hair (or a tiara?).

Heads of figurines were unfortunately rare, and only two were found stratified. Three others from the same site are in a private collection in

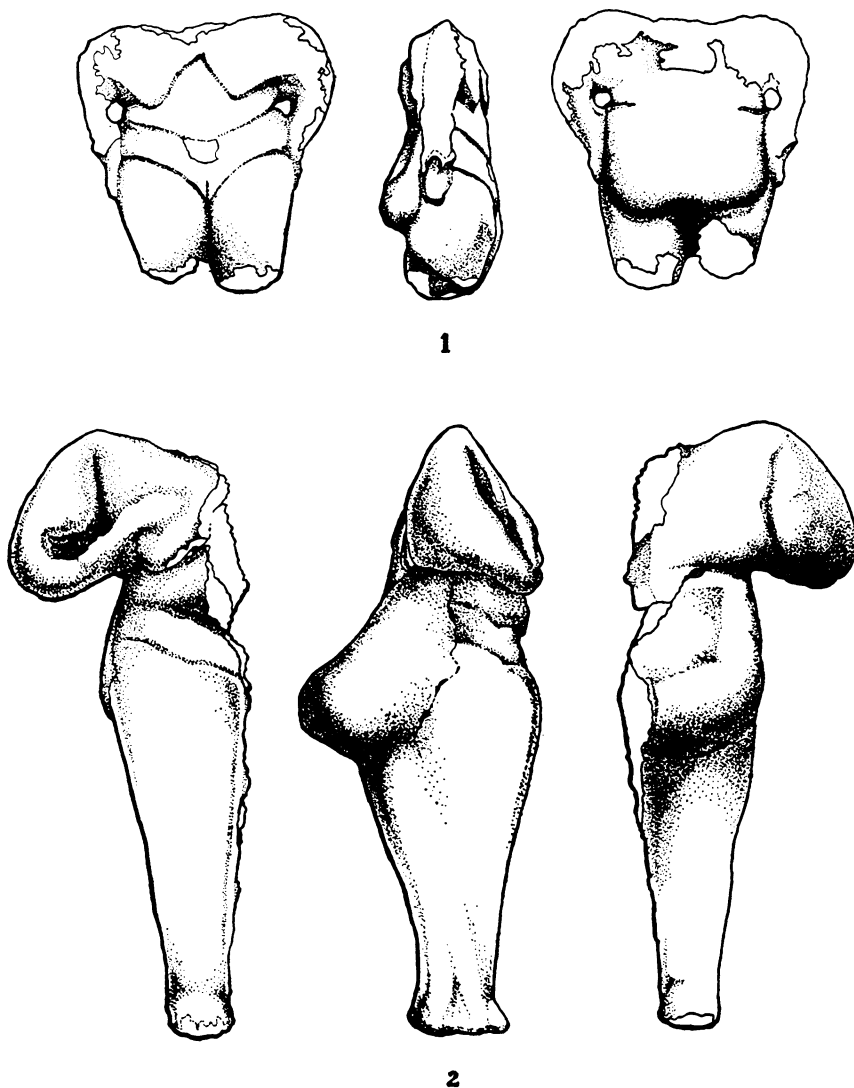


FIG. 9. Early Chalcolithic clay figurines from Hacilar. ($\times \frac{1}{2}$.)

1. Small standing figurine with hands on hip. Buff ware, red to light brown burnished slip. A II/2. HB/57/115.
2. Right half of large standing figurine with hands on breast. Buff ware; light red polished slip. A III. HB/57/100.

Drawn by Mrs. O. R. Gurney.

Istanbul¹² and these resemble a sherd, probably from Level II, with a fragment of a human body in relief. Two other clay heads of similar type are known from other sites, one from Beycesultan (unstratified—Fig. 11 : 3),

¹² Bought from the Hacilar dealer after the end of the excavations.

another from the Lower Cave at Ayio Gala in Chios.¹³ These heads are of two different types. In the first type, which is represented by the two stratified examples from Hacilar, levels II and III (Fig. 10 : 3), the eyes

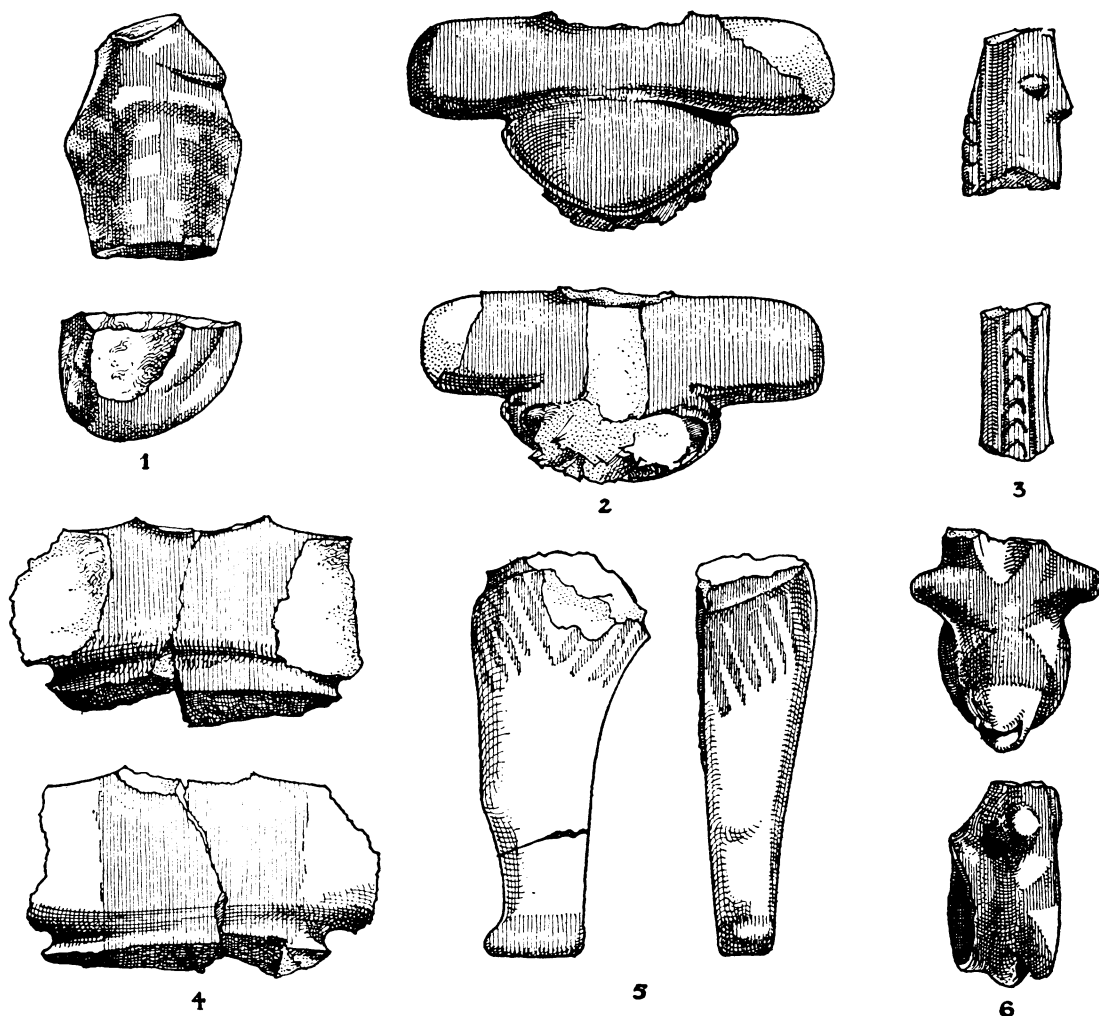


FIG. 10. Early Chalcolithic clay figurines from Hacilar. ($\times \frac{1}{2}$.)

1. Fragment of robed figurine ; right hip and part of leg preserved. Buff ware, red on cream slip. A II/1. HB/57/11.
2. Arms and torso of red burnished figurine. A IV. HB/57/99.
3. Head of light brown burnished figurine ; top of head broken off. A III. HB/57/101.
4. Torso of large figurine. Grey clay, cream slipped with sleeveless dress in brown to black paint. B III. HB/57/37.
5. Complete leg of figurine. Grey ware, cream slipped. Grass skirt and shoe indicated in red paint. B III. HB/57/35.
6. Fragmentary rhyton in the form of a bull's head. Grey ware, brown burnished with four reserved (cream) slip triangles on the face. A II/3. HB/57/22.

Drawn by Mr. Seton Lloyd.

¹³ PPS. XXII, 1956, fig. 13, 1. Note the same incised line to show the hair and the bun at the back. The red on white sherd, fig. 13, 3, is of normal Hacilar type and the handle, no. 2, also has parallels there. A second head from the same cave (Pl. XXI, 22) is unlike ours and shows a mouth, which seems never to have been indicated in Hacilar type figurines.

and a plait of hair are applied in the form of clay pellets. In the second type (Fig. 11 : 1, 2, 4, from Hacilar ; 11 : 3, from Beycesultan and Ayio Gala) not a single example of which is stratified, the head is naturalistically modelled with nose and ears and the almond-shaped eyes are incised. The hair is either incised or in the case of Fig. 11 : 1, elaborately modelled (cf. the Ayio Gala specimen). This little head is a fine piece of art and

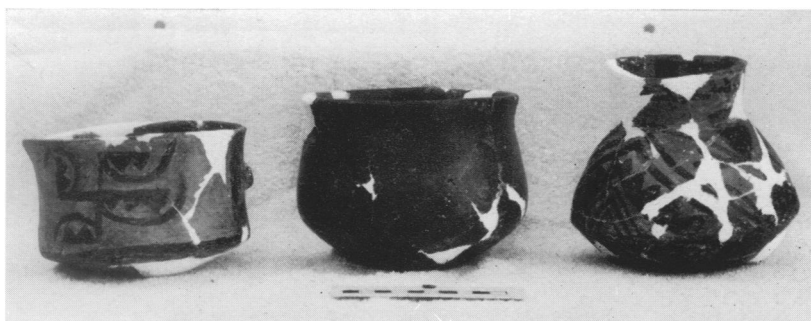


FIG. 11. Early Chalcolithic heads of clay figurines. ($\times \frac{3}{4}$.)

1. Cream burnished.
2. Brown burnished.
3. Reddish clay, poorly burnished. From Beycesultan.
4. Red burnished.

no drawing can convey the delicately modelled features. Curiously enough, the mouth is never shown in these figurines. The lack of precision in dating this second group is tantalising, but the fine workmanship points to Level II. The specimens from Beycesultan and Ayio Gala are of cruder workmanship, but evidently belong to the same period and are therefore important in defining the geographical distribution of the Hacilar culture. The large marble figurine from Beycesultan, found together with this clay head,¹⁴ belongs to the same group of figurines as those from Hacilar. That difference of material is not an essential feature is shown by comparison with other related cultures, such as the neolithic of Çukurkent and the chalcolithic of Sesklo, both of which produced figurines in stone as well as clay.

¹⁴ *AS.* VI, 1956, Plate XIIb. For "limestone" read marble.



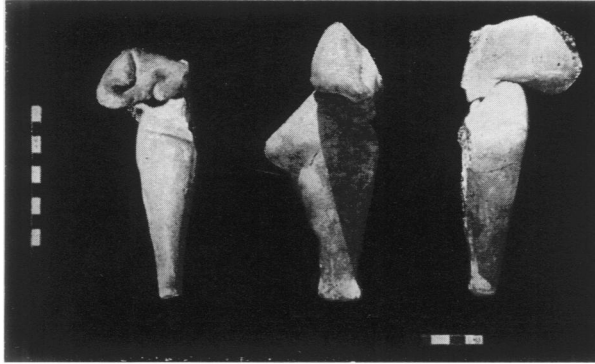
(a) Two painted vessels from Level III and a monochrome brown bowl from House C II.



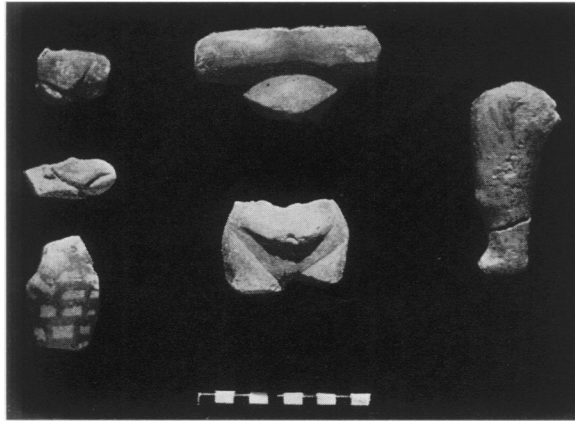
(b) Three cups and an oval-mouthed jar from House A II/2.



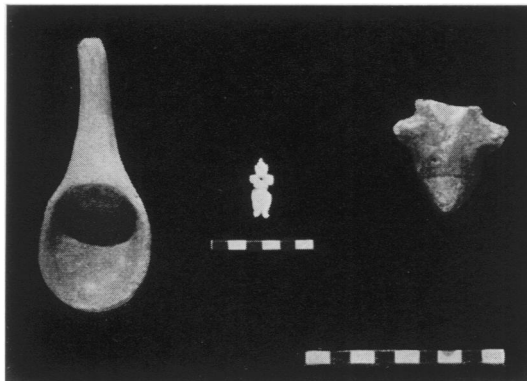
(c) A large jug and two small bowls. The bowl on the left is from House B II, the other vessels from House A II/2.



(a) Large figurine from Level III.



(b) Figurine fragments from Levels II, III and IV.



(c) Pottery spoon from Level II, mother of pearl figurine from Level VI, and bull's head rhyton from Level II.

Animal figurines are comparatively rare at Hacilar ; two large figurines of bulls, coarsely but forcefully modelled, were found in a room in house C II.

CLAY OBJECTS

Most important among the clay objects from Hacilar are two stamp-seals in the private collection referred to above. One of these is circular in shape with a tapering unperforated conical handle, the other is oblong with a horizontally perforated rectangular lug. The patterns are a rosette and a curiously spiked S-shaped motif¹⁵ respectively.

In the same collection is a clay "altar" on four feet. Pottery spoons or ladles occur in Level II (Plate XXXIIc).

STONE AND BONE

Flaked Stone Industry

This is very poorly represented by simple blades and cores of local red chert, flint and Central Anatolian obsidian. There are no sickle-blades with denticulation or lustre along the edges and no arrowheads. A single fragmentary pressure-flaked javelin head was found in Level II. It is made of red flint (?) and so damaged that it is unknown whether it was flaked on both or only on one side.

Ground and Polished Stone

This was well developed and included weapons (an ovoid macehead), tools (serpentine axes, chisels), querns, mortar pounders, palettes, haematite polishers, grooved stones (spit-holders?), ornaments (slate pendants and stone beads of tubular shape, stained red, blue and pale green). Stone vessels made of marble, veined limestone and other rocks, were common in both chalcolithic and neolithic levels. An oval cup of white marble decorated with a ram's head in high relief, came from house B 11. With it was found a little cup on a ring-base and a small bowl on three feet.¹⁶ Some of the marble bowls had vertical tubular lugs of the type seen in the neolithic pottery, but these fragments were found in Level II.

Bone was used for awls, which were exceedingly common in all levels, and for a variety of other tools ; spatulas, spoons and fishing gear. An antler socket, used for hafting stone celts from Hacilar, is in a private collection. Shell was used for making finger-rings and a pendant was manufactured from split boar tusk.

Miscellaneous

No metal was found, but certain chalcolithic pottery shapes betray the influence of metalwork. Rounded and perforated sherds served as spindle-

¹⁵ The same motif is very common on Apulian neolithic painted pottery, in the Serra Alto style. It is also found at Lipari. L. Bernabó Brea and M. Cavalier. *Civiltà preistoriche delle Isole Eolie e del territorio di Milazio* (Rome, 1956), fig. 13 : i, k, and fig. 14, below.

¹⁶ Now in the private collection in Istanbul. See note 1.

whorls. Not even an infant burial was found within the settlement and it looks as if extramural burial, characteristic of Western Anatolia since late chalcolithic times, was already practised. Charcoal was collected for the purpose of C 14 tests, from charred beams in levels II and VI. Cereals and animal bones, not yet studied by specialists, include wheat, barley, vetch (Turkish *burcak*) and lentils, sheep, goat, cattle, two varieties of deer, dog, boar (especially in the neolithic) and some small animals. It is remarkable that no agricultural tools, such as hoes and sickle blades, have yet been found. Of weapons only the sling is well represented.

EXTERNAL RELATIONS AND CHRONOLOGY

The Geographical Distribution of the Hacilar Culture and its Neighbours

The approximate area occupied by the Hacilar neolithic and chalcolithic cultures is known to extend from Afyon Karahisar south-westwards to Denizli and southwards deep into the Lycian peninsula, with the reservation that no chalcolithic *painted* pottery has yet been found north of the Maeander Valley.¹⁷ There are strong grounds for believing that this or a closely related culture province extended right up to the Aegean, where comparable material is now known to exist in Chios,¹⁸ Cos¹⁹ and Syros.²⁰ Nothing comparable in date or type to the Hacilar cultures has yet been found in North-western Anatolia. As its eastern neighbour we have, however, a neolithic culture in the Pisidian Lake District, around the Lakes of Beyşehir, Eğridir, Suğla and Kovara. In the early chalcolithic period this culture appears to have been succeeded by one with painted pottery of Mersin Early Chalcolithic type,²¹ which, we now know, extended through the Konya Plain to the Lake of Beyşehir. Both cultures can now be shown to have had close connexions with the Hacilar sequence.

The Hacilar Neolithic and the Çukurkent Culture in the Pisidian Lake District

Much new material collected during July 1957 at Çukurkent and Kanal Hüyük, the two main sites of the Lake District Neolithic, supplement the pottery and objects described in this journal four years ago.²²

A good series of parallels can be established between these two cultures, which, though in many respects different from each other, have virtually all the main characteristic pottery types in common, so that there can be little doubt about their contemporaneity.

¹⁷ AS. IV, 1954, p. 180 ff., map 2.

¹⁸ PPS. XXII, 1956, fig. 13, 1-3, p. 197 under (b) red-on-white ware.

¹⁹ *Annuario* VIII-IX, 235 ff. PPS. XXII, 1956, p. 193.

²⁰ Information kindly supplied by Prof. F. Schachermeyr.

²¹ *Antiquity* XXVII, 1954, pp. 214-220. For "Hassuna" read Mersin Early Chalcolithic.

²² AS. IV, 1954, pp. 181, 186, and figs. 1-25. The new material, not yet published, is in the British Institute of Archaeology at Ankara.

These are :—

- (a) Large shallow bowls with vertical sides, and occasionally a vertically placed decorative bar (Fig. 7 : 18 and 21), found in Hacilar VIII and at Kanal, Yılan, Kovara Göl and other sites in the Lake District.²³
- (b) Jars with faintly marked or thickened rim, common in Hacilar IX–VIII (Fig. 7 : 19, 20, 25) and at Çukurkent and Kanal.²⁴
- (c) Hole-mouth bowls, found in Hacilar IX and VIII (Fig. 7 : 24), are even more frequent in the Lake District neolithic.²⁵

To these three main shapes, as characteristic at Hacilar as in the Lake District, may be added a fourth, the funnel-necked jar, which apparently first appears at Hacilar in Level VII (Fig. 7 : 17).²⁶

Most of the parallels quoted belong to the earliest two levels at Hacilar, and the resemblances are in shape and ware, rather than colour. Cream burnished ware, a characteristic of this phase at Hacilar, is rare in the Lake District, where most of the pottery is red, brown or greyish-black in colour. Many of the Hacilar VII vessels, however, in their typical mottled ware are paralleled as such at Çukurkent and Kanal Hüyük, but the most frequent Hacilar VI shapes, i.e. small bowls with swung profiles and jars with vertical tubular lugs, are not found there. Instead, the older shapes appear to have remained in fashion at a time when at Hacilar they were being replaced by more sophisticated shapes. A single piece of painted pottery picked up at Çukurkent is virtually identical with the Hacilar VI painted sherds, but bears little resemblance to the Early Chalcolithic pottery of Mersin type, which apparently succeeded the Lake District Neolithic.

Two standing stone female figurines in the Ashmolean Museum²⁷ from Çukurkent show the same features as our Hacilar ones, but they are of small size and the majority of the neolithic Çukurkent figurines are of the sitting type, about 2 to 3 cm. high, rather crudely made of clay (and worse still in stone),²⁸ of a type not (yet) found at Hacilar. Other differences may be noted in the stone industry, where the stone pins with animal or human heads,²⁹ and the wealth of obsidian tools, finely pressure-flaked arrow- and lance-heads and denticulated sickle blades, find no parallels at Hacilar. In the obsidian industry, the Lake District Neolithic is closely linked to that of Ilıcapınar, south-west of the Great Salt Lake, and Mersin³⁰ and the profusion of obsidian at these sites is easily explicable in geographical terms, for all these areas had much easier access to the obsidian deposits of Hasan Dağ than Hacilar.

²³ *ibid.*, figs. 1, 4, 14, 15, 17–20.

²⁴ *ibid.*, figs. 21, 22.

²⁵ *ibid.*, figs. 9–11.

²⁶ *ibid.*, figs. 5–7.

²⁷ *BSA.* XIX, 1912–13, p. 48 f., figs. IA and IB.

²⁸ *AS.* IV, 1954, figs. 83–86 (clay), *PZ.* XXXIV–V, fig. 1 (stone).

²⁹ *AS.* IV, 1954, figs. 87, 89.

³⁰ See my forthcoming article on “The Neolithic obsidian industry at Ilıcapınar” in *Istanbuler Mittheilungen*, 1958 (?).

Hacılar and Mersin

Now that the Çukurkent culture can be dated to the neolithic period in terms of Hacılar and Mersin, it is unlikely that any direct links between these two cultures existed which did not pass through the Lake District, unless there were communications by sea.

At the end of the neolithic period at Mersin, to be precise in Levels XXVI and XXV, there is an influx of light and mottled wares, previously absent, together with a series of new shapes, such as funnel-necked jars³¹ and bowls and small jars with everted rims.³² At the same time the hole-mouth bowl of the earlier neolithic phases, the chief recipient for the nail or shell-impressed decoration, disappears and incised or jagged decoration takes its place,³³ but there is so little of it that it does not appear to have been important. Matt-impressed bases found in Level XXV again form a link with Çukurkent.³⁴ The light-coloured and the mottled wares seem to be a general feature of this late neolithic period in Southern Anatolia, and the new shapes at Mersin find their counterparts in Hacılar levels VII and VI. As early as Mersin XXVII primitive painted pottery appears and it is only at Mersin that a convincing case can be made for an unbroken development into the Early Chalcolithic period. At the very end of the Late Neolithic period at Mersin this painted ware is not uncommon and at the same time it appears somewhat sporadically at Çukurkent in the Lake District and at Hacılar in the last neolithic level (VI). This is hardly a coincidence, for not only are there traces of disturbance at the end of the neolithic period—Mersin XXV, Çukurkent and Hacılar VI are all burnt—but the next period is marked by plentiful painted pottery in these same three areas of Southern Anatolia.

On the earliest chalcolithic pottery at Hacılar (V) there occur a group of patterns such as parallel vertical wavy lines, a profusion of chevrons, linear cross-hatching and other simple motifs, which, though not perhaps the most typical at Hacılar, are still common enough to invite comparison with other sites, the more so as they tend to disappear in the following phases. These linear patterns are absolutely characteristic of the early chalcolithic painted pottery of Mersin, especially in its first phase, Level XXIV.³⁵ Shapes at Mersin, on the other hand, tend to be less sophisticated than at Hacılar, but this is already the case in the last neolithic level. The oval shape, characteristic of the Hacılar Chalcolithic, appears in a somewhat primitive form at Mersin XXIII.³⁶

Though not found at Mersin, the large bowls of the Hacılar I period show in shape and decoration (but not in the motifs used) resemblances to the large bowls and platters, which appear everywhere in Mesopotamia towards the end of the Hassuna period, contemporary with Early

³¹ J. Garstang, *Prehistoric Mersin*, fig. 11, 7.

³² *ibid.*, p. 39, fig. 20, 20 and 27.

³³ *ibid.*, fig. 20, 12, 13.

³⁴ *ibid.*, fig. 20, 14.

³⁵ *ibid.*, figs. 36 (and see later E. Chalcolithic sherds, figs. 52, 53).

³⁶ *ibid.*, fig. 53, 7.

Chalcolithic Mersin, levels XXIV–XX, and which are a hallmark of the Samarra ware.³⁷ Their appearance at Hacilar in the same chronological setting towards the end of the Early Chalcolithic period—which preceded the Halaf period at Mersin and in Mesopotamia—appears to confirm our dating, which can be tabulated as follows :—

Mersin XIX (Halaf) Hassuna VI (Halaf + Samarra)			
	Hacilar I ← (Mersin XX) → Hassuna V		
Early chalcolithic	II	XXI	IV Samarra
	III	XXII	III
			II
	IV	XXIII	Ic
	V ↔ XXIV		Ib
<hr/>			
Late neolithic	Hacilar VI ↔ Mersin XXV		Hassuna Ia (neolithic camp-sites)
	VII ↔ XXVI		
<hr/>			
Early neolithic	Hacilar VIII ↔ Mersin XXVII		
	IX ↔ XXVIII		
		XXIX	
		XXX	
		etc.	

In terms of absolute chronology, I would, subject to confirmation by a series of new Carbon 14 dates, suggest a date of *c.* 5000 B.C. for the beginning of the Early Chalcolithic period, which would mean that the beginnings of the Halaf and Ubaid periods should be dated to *c.* 4500 and *c.* 4000 B.C. respectively. The beginning of the long Mersin Neolithic period probably still falls *before* 6000 B.C. and that of Hacilar and Çukurkent may go back to *c.* 5500 B.C. or a little later.^{37a}

Hacilar and Greece

Perhaps the most startling, but not unexpected result of the Hacilar excavations is the discovery of an early chalcolithic culture which in nearly all aspects is the nearest known relative of the Sesklo culture in Thessaly and its variants in Central Greece and the Peloponnese.

Thus, for the first time, archaeological evidence from Western Anatolia lends support to an old theory, recently most enthusiastically propounded by Prof. F. Schachermeyr,³⁸ that the earliest cultures of Greece were the result of a cultural diffusion from the Near East. The great weakness in his argument had been the apparent absence of material from Western Anatolia early enough to be taken into consideration, so that too much reliance was placed on that from Cilicia, Northern Mesopotamia and rather inappropriately, on that of the *late chalcolithic* cultures of Central Anatolia.

³⁷ *JNES*, IV, 1945, fig. 1, 4 and 6 (Hassuna). Note also the face on a jar, *ibid.*, fig. 1, 2. Cf. Hacilar II sherd with figure in relief. Du Mesnil de Buisson, *Baghouz*, Pl. XXI, A, C–E, XXII, 1–3, XXVI, etc.

^{37a} See *Science*, 20/6, 1958, p. 1426, for new C.14 dates from Mersin and Hassuna.

³⁸ F. Schachermeyr, "Die Vorderasiatische Kulturtrift," *Saeculum*, V, 1953, p. 268 ff., and F. Schachermeyr, *Die Ältesten Kulturen Griechenlands* (Stuttgart, 1955), p. 49 ff.

It is a most fortunate coincidence that Professor V. Miložčić's excavations at Otzaki, Arapi and Gremnos, all mounds near Larisa in north Thessaly, Dr. D. Theochares's at Sesklo, Syros and Makri and Dr. J. L. Caskey's at Lerna are all to a great extent, if not mainly, concerned with elucidating the complicated and hitherto somewhat obscure stratigraphy of this very long and important neolithic period in Greece. For this same reason, only preliminary reports and notices are yet available and in tabulating the following list of similarities between our Hacilar chalcolithic and the Sesklo culture I unfortunately had to rely mainly on earlier published material from Professors C. Tsountas and A. J. B. Wace's excavations. Its tentative and provisional character needs therefore to be stressed.

LIST OF SIMILARITIES BETWEEN THE HACILAR CHALCOLITHIC AND
SESKLO CULTURES

- (1) *Architecture*.—The use of mud-brick walls, often, but not always, without stone foundations : Hacilar V–II, Otzaki. Stone foundations : Hacilar I, Tsangli, Lerna.
Square plans with internal buttresses : Hacilar II, Tsangli, Otzaki.³⁹
- (2) *Pottery*.—*Wares* : Red on white slip (A3β),
Red on polished buff ground (A3γ),
wet-painted or burnished (A3ζ),⁴⁰
Monochrome red and brown ware (A1).
Absence of matt-painted ware in the Sesklo period proper
and at Hacilar. Dark paint, end of period.⁴¹
- Shapes* : Flaring dishes, carinated bowls, funnel-necked jars, piriform jars, straight-sided bowls, etc. Oval vessels.⁴²
- Motifs* : Solid style (Early Sesklo) : step-patterns, triangles.⁴³
Linear style (Middle and Late Sesklo) : multiple chevrons,
parallel lines bordered by triangles (Hacilar I only),
stepped triangles.⁴⁴
Linear–Late Sesklo : e.g. elaborately painted interiors like
Hacilar I.⁴⁵
- Plastic decoration* : Knobs, crescents, warts and human figures (Sesklo culture, Ayio Gala, Hacilar).⁴⁶
- Lack of grooved and incised ornament.*
- (3) *Zoomorphic vessels*.—Bull rhyton from Hacilar II, goddess rhyton from Thessaly.⁴⁷

³⁹ *Prehistoric Thessaly*, p. 115, fig. 64. *AA.* 1955, p. 157, fig. 1.

⁴⁰ *AA.* 1955, p. 168.

⁴¹ *AA.* 1955, p. 180, 7.

⁴² *Prehistoric Thessaly*, passim. See under Tsangli, Zerelia and especially Sesklo with references to C. Tsountas, *Ai Proistorikai Akropoleis Diminiou kai Sesklou* (Athens, 1908). Oval vessels : recently recognised in Thessaly by Dr. D. Theochares.

⁴³ *Prehistoric Thessaly*, fig. 83, h–o, 84.

⁴⁴ *ibid.*, fig. 97, r.

⁴⁵ *ibid.*, fig. 45 (interior), 46, n. Heurtley, *Prehistoric Macedonia*, p. 137, no. 6.

⁴⁶ *Saeculum V*, 3, p. 291, no. 12, 14. *PPS.* XXII, 1956, Pl. XXI, no. 11.

⁴⁷ *Ath. Mit.* 68, 1953, figs. 17–19.

- (4) *Clay altars on four feet*.—Hacilar V, IV and II. Sesklo.⁴⁸
- (5) *Pottery ladles*.—Hacilar II, Sesklo culture in Thessaly.
- (6) *Stamp seals*.—Hacilar II and Sesklo.⁴⁹ (clay) ; Tsani (stone).⁵⁰
- (7) *Oval clay plaques with two perforations*.—Hacilar II and Sesklo.⁵¹
- (8) *Female figurines*.—Clay, rarely in stone (Beycesultan). They have in common : the position of the arms, the sagging stomach, the steatopygy and in some types the stalk-like heads with clay pellets, and plaits of hair. Naturalistic ones rare in Thessaly,⁵² but see Lerna⁵³, which is the only specimen that in size compares with the Hacilar ones.
- (9) *Animal figurines*.—Less prominent in both cultures.
- (10) *Stone vessels*.—Marble and other stone. A bowl with flaring sides on a ring base is found both in Hacilar II and in Thessaly.⁵⁴ The Sesklo bowl⁵⁵ is found in stone at Hacilar.
- (11) *Polished ground stone tools and objects*.—Axes, set in antler sockets,⁵⁶ miniature green stone celts, chisels, pounders, mortars, querns and palettes are virtually identical on both sites.⁵⁷ Stone beads.
- (12) *Chipped and flaked stone industry*.—Blades, cores, scrapers of flint, chert and obsidian are similar in both cultures. Some pressure flaking is practised.
- (13) *Bone and shell*.—Shell is used for making finger rings ; bone for awls, spatulas, less commonly for needles and for pins with segmented tops.
- (14) *Copper axes*.—Two copper axes were found at Sesklo^{57a} of a flat axe shape, resembling stone ones from Hacilar.
- (15) *Weapons*.—Sling-stones, or clay substitutes are common in the Sesklo culture and at Hacilar.⁵⁸ Maceheads are again found,⁵⁹ but the bow and arrow appears to be unknown in both cultures.
- (16) *Trade*.—Both cultures imported obsidian ; that at Hacilar is of Central Anatolian provenance ; in the Sesklo culture some may be Melian, but some is definitely not and is possibly imported from C. Anatolia. Lumps of red ochre, possibly local, were also found at Sesklo.⁶⁰ The metal axes may also have been imported.
- (17) *Burial customs*.—Burials within the settlement are as conspicuously absent in Thessaly as they are at Hacilar. Extramural burial was probably practised. One intramural burial was found at Lerna.⁶¹
- (18) *Agriculture*.—Hacilar : wheat (type not yet known), barley, vetch and lentils. Thessaly : Wheat of Einkorn variety, native to the Aegean and western Anatolia, and barley.
- (19) *Cattle breeding*.—Ox, sheep, goat and pig are found in both cultures, but whereas pig is by far the most common in Thessaly (*AA.* 199, p. 182), it is apparently rare at Hacilar.

⁴⁸ Tsountas, op. cit., fig. 86–88.

⁴⁹ *ibid.*, figs. 270–3.

⁵⁰ *Prehistoric Thessaly*, fig. 93.

⁵¹ Tsountas, op. cit., pl. 32–4 ; fig. 224–9. *Ältesten Kulturen Griechenlands*, Pl. II.

⁵² *Hesperia* XXVI, 1957, pl. 49a. *ILN.* 12/1/1957.

⁵³ *Ath. Mit.* 57, 1932, pl. 22, p. 107, fig. 1.

⁵⁴ *Ältesten Kulturen Griechenlands*, pl. 3.

⁵⁵ Tsountas, op. cit., fig. 243. There is one like that in the much mentioned private collection from Hacilar.

⁵⁶ Tsountas, op. cit., pl. 39, 40 ; figs. 231–9, 256–61.

^{57a} *ibid.*, figs. 292–3.

⁵⁸ *ibid.*, figs. 252–3.

⁵⁹ *ibid.*, figs. 246–50.

⁶⁰ *ibid.*, figs. 274–5.

⁶¹ *Hesperia*, XXVI, pl. 49, c.

- (20) *Hunting and fishing*.—Boar and various type of deer were hunted in both areas. Fish hooks in Thessaly are common, rare at Hacilar. Notice the preference for settlements near lakes in both cultures and their neolithic predecessors. (Pisidian Lakes, including that of Burdur, Karla Lake in Thessaly, Copais in Boeotia, etc.)

This summary of analogies, necessarily somewhat incomplete, includes all the major and many of the minor aspects of the Hacilar chalcolithic and Sesklo cultures. There is, nevertheless, no question of identity and each of these cultures has some very marked peculiarities of its own. The white on red ware (A3α), the scraped technique of Thessaly,⁶² the beakers with strap-handles,⁶³ high pedestals⁶⁴ as well as the squatting type of figurine⁶⁵ have no parallels in the Hacilar chalcolithic.

The curious oval cups and jars with spouts, peculiar to Hacilar, the "Hacilar handle", and the curvilinear motifs, are unknown in Thessaly or anywhere else in Greece. In its repertory of motifs also Hacilar is incomparably richer than all its neighbours and the quality of its products is far above that of the Sesklo culture.

In view of the close similarities between the Hacilar chalcolithic and the Sesklo culture, it would be unrealistic to deny the contemporaneity of these cultures or the kinship of their bearers. As a contemporary of Hacilar, Mersin Early Chalcolithic and Hassuna, the Sesklo culture must then be redated to the first half of the 5th millennium B.C., in other words to c. 5000–4500 B.C., that is about a millennium and a half earlier than was hitherto considered possible. There is nothing inherently improbable in this now that Professor V. Milošević has proved the existence of at least four and possibly five later cultures⁶⁶ which have to be accommodated without undue compression into the two millennia which fall between the end of the Sesklo culture and the beginning of Early Helladic I in Greece, c. 2500 B.C.

Moreover, the same excavator has conclusively proved that the Sesklo culture can no longer lay claim to being the earliest neolithic culture of Greece, as was maintained by many reputable scholars until 1953, for not less than five earlier cultures have been discovered in the bottom levels of the Thessalian mounds of Otzaki, Arapi, Gremnos and Sesklo, of which the earliest is clearly non-ceramic.⁶⁷ What relations are to be found between these and other pre-Sesklo cultures in Central and southern Greece and in neolithic Anatolia is a fascinating subject which it would, however, be premature to consider on the eve of a full-scale excavation at Hacilar.

⁶² *Prehistoric Thessaly*, p. 172, fig. 119.

⁶³ *ibid.*, fig. 84.

⁶⁴ *ibid.*, fig. 40, g. *Ältesten Kulturen Griechenlands*, fig. 12, 2 (Corinth).

⁶⁵ S. S. Weinberg in *AJA.* 55, 1951, plates 1, 2.

⁶⁶ *AA.* 1955, p. 184 ff. *BCH.* LXXXI, 1957, p. 593–6. These are after Sesklo : (1) Central Greek Phase, (2) Dimini, (3) Arapi, (4) Gremnos, (5) Larisa, Rakhmani, the latter contemporary with E.H.1 further south.

⁶⁷ *AA.* 1955, pp. 172–8 and 179–180 (resumé), and *BCH.* in previous footnote.