ALBERT RECKITT ARCHAEOLOGICAL LECTURE

ÇATAL HÜYÜK, A NEOLITHIC CITY IN ANATOLIA

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AM much honoured by the British Academy's invitation to give the Reckitt Archaeological Lecture tonight on Catal Hüyük, a neolithic city in Anatolia, which I had the good fortune of discovering and excavating in the years 1961, 1962, and 1963. These three successive campaigns, amounting to a mere 164 days of digging, have by no means exhausted the site and it would be fairer to say that we have just made a beginning. It will require at least a decade to investigate this largest and richest of neolithic sites known in the Near East and further work will no doubt modify the summary of results so far obtained which is all that I can present in a single lecture.

The mound of Çatal Hüyük is a double one, situated on the banks of a river in the fertile alluvial plain of Konya, at an elevation of 3,000 ft. above sea-level on the Anatolian plateau. The eastern mound, covering thirty-two acres is neolithic and forms the subject of this lecture, the western mound is of the following Early Chalcolithic period, and has not yet been sufficiently investigated.

Although the soil around Çatal Hüyük is still fertile the plain, once grassland, has changed to steppe and the woods and forest which once covered the mountains all around have been reduced to barren ranges through 10,000 years of indiscrimate deforestation and overgrazing. Today Çatal Hüyük lies in a region with the lowest rainfall in Turkey (less than 16 in. a year). Conditions were evidently different during the neolithic period some 8,000-9,000 years ago when great herds of aurochs (Bos primigenius), red deer (Cervus elaphus), gigantic wild boar (Sus scrofa), and wild asses were intensively hunted in the plain. Other game, such as wild sheep, bears, and leopards, as well as wolves and foxes. are still to be found in the hills, but the main food animals have C 3190

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disappeared and with them the grassland and the open woodlands, their natural habitat. A somewhat higher rainfall is suspected during the neolithic period and the natural water table has fallen, but that parts of the plain were already saline then is clearly shown by the cultivation of a salt-requiring crucifer, *Erysimum sisymbrioides*.

Neolithic agriculture was practised by means of natural irrigation, the crops being sown in the flood pools of the river, the Çarsamba Çay, which flows from the Taurus Mountains into the plain. By 6000 B.C. the people of Çatal Hüyük had developed the most efficient and advanced agriculture known in the Near East and had succeeded in developing hybrids; naked six row barley and bread wheat (*T. aestivum*) from the simpler hulled two row barley and Emmer wheat. Einkorn (wheat) is another new crop and so is bitter vetch. Emmer (wheat) now reached maximum grain size and besides the cereals, peas and lentils and two crucifers were grown for the production of vegetable oil. From the hills acorns, apples, and almonds were imported as well as the fruits of Pistachio, Juniper, and Hackberry (*Celtis australis*), the latter being used for producing a wine, which was still popular in Pliny's time.

Domesticated sheep and goats were kept even in the earliest levels reached, i.e. well before 6500 B.C., and it appears that cattle was in the process of being domesticated. Bones of domestic dog, already present at Hacılar in the aceramic neolithic c. 7000 B.C., have now also been found, and a wall-painting from level III c. 5800 B.C. shows a hunter accompanied by what is most probably a dog. At the contemporary site of Suberde, fifty miles further west, domesticated pig was found last year.

Mixed farming then, supplemented by hunting and some river fishing, formed the basic economy of the neolithic population of Çatal Hüyük in the seventh and early sixth millennium. With food of all sorts in abundance the dolichocephalic population of Çatal Hüyük were fairly tall and had excellent teeth, even if few individuals reached the age of 40. As they practised intramural burial, human skeletons are abundant (some 400 individuals have been found) and they are to be studied this year by Mlle Denise Ferembach and Prof. Lawrence Angel.

By the middle of the seventh millennium B.C. we are confronted by a neolithic city with a possible population of about 8,000-10,000 people, fully able to support themselves with food to spare and with the 'neolithic revolution' fully accomplished. The transition from aceramic to ceramic neolithic has also been

202

ÇATAL HÜYÜK, A NEOLITHIC CITY IN ANATOLIA 203

made and burnished pottery as well as coarse ware is being produced, although on a fairly limited scale, and not as yet competing with the traditional pre-pottery vessels of wood and basketry. These centuries around the middle of the seventh millennium mark not only the discovery of pottery, but also that of metals, copper, and lead and the process of extracting these from their ores by smelting. It may be assumed that both discoveries, involving the use of heat, are interrelated. Although metals were known, they remained evidently extremely valuable and the bulk of all tools and implements were as before in the aceramic neolithic made of chipped local obsidian and flint imported from Syria, in polished stone, bone and antler, wood and basketry. Owing to a tremendous conflagration in which Catal VIA perished around 5880 B.C., at a time that this civilization had reached its climax, a great number of objects made of perishable materials have survived in graves and buildings. Among these there are fragments of coiled baskets and twilled matting; of fur, leather, and skin and even the completely carbonized brain of a young woman from which a radio-carbon date was obtained. Remains of a score of wooden bowls, dishes, cups, and boxes with lids, carved out of the wood of the fir-tree (Abies sp.) and numerous textiles, some probably of wool, others possibly made of a vegetable fibre other than flax, have survived to show the elegance and high quality of wood-carving and weaving reached by c. 6000 B.C.

This surge of technological achievement reached during the second half of the seventh millennium at this Anatolian city is fully matched by the arts: architecture, sculpture, and wall-painting, by an extensive trade in raw materials, by the production of luxury goods such as ceremonial daggers and polished obsidian mirrors and by the abundant evidence for a highly developed neolithic religion and symbolism. A sequence of eighteen consistent radio-carbon dates, unique for this period, provides a reliable chronological framework ranging from c. 6500 to 5600 B.C. for the twelve superimposed building levels so far excavated.

During this ceramic neolithic period, which lasted nearly a millennium, we can trace a steady cultural development at Çatal Hüyük without a single break or change of culture. Settlement after settlement was built along the same main lines (Plate LXII) in a series of terraces built up over the earlier remains of a not yet investigated aceramic neolithic mound, of considerable height. Built of mud-brick and white plaster, houses and shrines of rectangular plan, each with a main living-room and a narrow

204 PROCEEDINGS OF THE BRITISH ACADEMY

storage-room (Plates LXIVb, LXV), were laid out in alternate rows along a north-south or east-west axis, without any intervening streets or passages. Low doorways communicate from the living-room to the storage-chamber in each building but there are no ways of communicating from house to house. Each house or shrine was entered from the flat roof by means of a wooden ladder fixed against the south wall at the kitchen end of

ÇATAL HÜYÜK

Estimate	C-14 dates B.C.	
End c. 5720/5700 Beginning c. 5750	5797 ≢79	P-796
Beginning c. 5790	5807≢94 5675≢350	P–774 Gsy 175
Beginning c. 5830	5803≢?*	Gsy 179 and P–775 average
Beginning c. 5880	5920≢94	P-776
End c. 5880	$5781 \neq 96$ $5815 \neq 92$ $5857 \neq 89$ $5800 \neq 93$	P769 P778 P827 P781 P772
Beginning c. 6070/6050	5908 ≠ 93 5986 ≠ 94 6080 ≠ 350	P–797 P–777 Gsy 176
Beginning c. 6200	(6200≢97)	†P770
Beginning c. 6280	6486≢102 6385≢101	P-779 P-782
	End c. 5720/5700 Beginning c. 5750 Beginning c. 5790 Beginning c. 5830 Beginning c. 5880 End c. 5880 Beginning c. 5950 Beginning c. 6070/6050 Beginning c. 6200	End c. 5720/5700 Beginning c. 5750 $5797 \neq 79$ $5807 \neq 94$ $5675 \neq 350$ Beginning c. 5790 $5807 \neq 94$ $5675 \neq 350$ Beginning c. 5830 $5803 \neq ?*$ Beginning c. 5880 $5920 \neq 94$ $5815 \neq 92$ $5857 \neq 89$ $5800 \neq 93$ Beginning c. 5950 $5850 \neq 94$ $5908 \neq 93$ $5986 \neq 94$ Beginning c. 6070/6050 $6080 \neq 350$ $6080 \neq 350$ Beginning c. 6200 $(6200 \neq 97)$ $6486 \neq 102$

* Average of $6329 \neq 99$ (P-775) and $5250 \neq 350$ (Gsy 179); two samples from same post.

† Re-used timber, almost certainly from level VII, re-used in VIB.

All C-14 dates calculated with half-life of 5730 and all B.C.

the building (Plates LXIIIa, LXIVa). Through the entrance hole in the roof the smoke from hearth and oven also escaped. As the roofs of the houses were staggered it was possible to light them by means of small windows set in the west and south walls. The light thus fell on the east and north walls, along which were set two main raised platforms (Plates LXIIIa, LXIVa) which served as a sofa for sitting, working, and sleeping, and below

CATAL HÜYÜK, A NEOLITHIC CITY IN ANATOLIA 205

which the dead were buried. The main, woman's, platform against the east wall was set between two engaged and plastered posts which together with a timber frame gave solidity to the walls, supported the heavy clay roof laid on beams, and accounted for the characteristic panelling of the walls. This platform ended in a bench nearest the side of the hearth (Plates LXIIIa, LXIVa). In the north-east corner a smaller platform belonged to the male and subsidiary platforms were used by the children, as is indicated by the burials found below them. A fuel cupboard (Plate LXIVa) is usually found near the flattopped oven; the floors and platforms were covered with matting (Plate LXXXV) and a number of buildings are provided with a shaft for light and ventilation, which may have had a vent on the roof to catch the north wind, which blows during the hot summer months. These buildings were kept scrupulously clean and all household rubbish was carried out over the roofs to small courtyards, often the site of ruined houses, which also served the needs of sanitation. The outer edge of the settlement formed one blank wall of houses and storage-rooms without any visible entrance, and this took the place of more formal fortifications. It also served as a protection against floods.

Interspersed among ordinary dwellings are a large number of buildings that should be regarded as cult rooms or shrines on account of their elaborate decoration in the form of plaster reliefs, wall-paintings, or both (Plates LXI, LXVI-LXXIX). The ratio is about two houses to one definite shrine, but in view of the number of destroyed buildings that also may have been shrines, the proportion may be even smaller. Besides decoration there are a number of other features, such as burials with obsidian mirrors, red ochre, or belt fasteners for leopard skins, that suggest priestly burials confined to shrines, serving as an indication of the sacred character of a building, even when this has been destroyed. There are indications that a great number of the dead were buried in shrines, which suggests that probably the entire population of the quarter excavated consisted of cult personnel and their families. The absence of even a single workshop in this quarter clearly shows that the bazaar or workshop quarter remains to be located elsewhere on the mound. The decoration of the shrines from levels X-II varies considerably and no two are alike. Heads of animals modelled in clay and plaster appear as early as wall-paintings in level X. After level V relief decoration disappears except highly schematized bulls' heads or bucrania (Plate LXI) consisting of the horn cores

206 PROCEEDINGS OF THE BRITISH ACADEMY

of a wild bull set in a pillar of brick, which occur as late as level II. Wall-paintings are found from levels X-II, but from the latest phase only red panels have survived. Red panels are the simplest form of decoration and also occur in ordinary houses. More elaborate and extremely common are panels with textile or woven rug (Turkish kilim) design (Plates LXXIV, LXXVa) and as these frequently imitate sewn borders they are evidently copied from gaily coloured neolithic rugs which appear to have been already in common use. Panels decorated with symbols (Plate LXXVIIb) are less frequent and more enigmatic, but human hands (Plates LXXI-LXXIII) and in one case a child's foot are frequent, often combined with other motifs. Schematic representations of deities are rare in paintings in the lower levels, but in levels IV and III there are wellarticulated hunting and dancing scenes (Plates LXXVIII-LXXIX), a fragmentary scene with figures and a dead man's head (IV) and a most unusual scene in level VI portrays a mortuary built of bundles of reeds and matting, with human skulls and bones below. Large bulls also occur, usually on north walls of shrines facing the Taurus Mountains, sometimes painted (IX and III) or cut out of the plaster (VII and VI) and then painted (Plate LXVIIIb). Painted reliefs of leopards in a shrine of level VI face in the same direction (Plate LXVIIIa). Other early shrines show vultures devouring the flesh of human corpses, shown headless to indicate death (level VII and VIII) (Plate LXXVI). A unique painting shows a city and an erupting volcano (Plate LXXVIIa). These wall-paintings, executed with a brush in a wide range of colours, from which only blue and green are absent, served a ritual purpose after which they were whitewashed over. Occasionally those same walls were repainted after a lapse of time, but during the vast majority of years that the shrines were in use they had plain white walls, relieved only by a few red panels and posts.

Plaster reliefs, on the other hand, were continually visible, even if whitewashed over. In these only the goddess is shown in anthropomorphic form (Plates LXVIb, LXVII, LXX), whereas the male divinity is represented by his symbol, the bull, or *pars pro toto*, by the heads of bulls and rams, naturalistically modelled in clay and often incorporating the actual horn cores of these animals (Plates LXI, LXIX, LXX). The reliefs of goddesses show pregnancy or scenes of the birth of ram or bull and the goddess is invariably shown in the posture of birth with raised arms and upturned legs. Sexual vulgarity is strictly

ÇATAL HÜYÜK, A NEOLITHIC CITY IN ANATOLIA 207

banned and the emphasis is laid on womb and breasts. Pairs of heavy breasts occur as symbols side by side with the male symbol of a bull's horn. A number of these breasts incorporate symbols of death, such as the skulls of the Griffon Vulture (Gyps fulvus) (Plate LXXb), fox and weasel or the lower jaws of wild boar (Plate LXXIa). Some of the goddesses are painted, indicating dress, others giving birth are painted yellow or are plain white, and are presumably naked.

From these reliefs and the numbers of cult statues-modelled in clay or carved in a variety of stones, and found only in shrines -we get a good idea of the religion of the neolithic people of Catal Hüyük. The main deity was evidently a 'Goddess', shown both as a young girl and as a 'mother' (Plates LXXXb, c, LXXXIa, and LXXXII), but her son and consort also appears as a child, a young adolescent (Plate LXXXa), or an older bearded god. These two deities have their sacred animals; leopards and a bird (probably a vulture) are associated with the goddess, bulls, rams and occasionally deer with the god. Neither the snake nor the goat played a role in this neolithic civilization, probably for ecological reasons. We have already commented on vulture, boar, fox, and weasel, all scavengers, as symbols of death. That this great neolithic Anatolian goddess was the prototype of Hepat and Kupapa, Artemis of Ephesus, Aphrodite of Aphrodisias, and Cybele of Phrygia, all Anatolian goddesses of the fertility type with sons and consorts needs hardly to be emphasized. Nor need we doubt that the main function of this religion was that of fertility and abundance, not only of the human race, but of his game, domestic animals, and crops. The chthonic aspect also is frequently shown in the form of aniconic stalactites or as partly carved stalactites from the Taurus caves, and concern with death is clear from the paintings of vultures, vulture statuettes, and vulture skulls. It seems extremely likely that the chthonic nature of obsidian, metal ores, and pigments was fully realized and like abundant crops these mysterious materials were already regarded as a gift of the goddess. Polished obsidian mirrors were probably used in the cult and the mirror became a symbol of many a later goddess. Of religious ritual and practice little is known beyond the burial rites. Although sacrifices may have taken place slaughtering must have been done outside the shrines. The ceremonial dagger and the spouted stone bowls may have been used for sacrifices. Hunting rites which included the modelling of effigies of clay animals, which were then pierced and maimed, broken and

208 PROCEEDINGS OF THE BRITISH ACADEMY

buried in pits after use, are well attested and the wall-paintings show us ritual dancers, probably priests, attired in leopard skin dress, in connexion with the hunting of aurochs and red deer. Human skulls, some deposited below bulls' heads in a shrine of level VII, suggest ancestor cult or funerary rites. Sympathetic magic is also indicated by putting statuettes of the goddess in grainbins or heaps of cereals to ensure the fertility of the crops. Agrarian festivals may be assumed and the annual replastering of the houses seems to have taken place after the burial of the year's dead. Secondary burial was practised, probably for reasons of hygiene and only the dried skeletons, previously stripped of the flesh by vultures and insects in a mortuary outside the settlement, were buried under the platforms of houses and shrines. They were wrapped up in cloth, skins, or matting and the cloth was tied with cloth tapes or rope of vegetal fibre. The dead usually lie in a contracted position on their left side with feet against the wall, but there are some cases of burials extended on the back with head against the wall. No consistent orientation is otherwise observed. The majority of burials have no funeral gifts and burials in shrines are usually better provided for than those in houses. Baskets are frequently used for the burial of children and a small number of individuals are treated with red ochre (mainly women and children) applied all over or to the skull (Plate LXXXIVa), or with blue and green paint (both men and women). The green paint is applied to the evebrows, the blue to the neck. Red ochre burials (including some dark-red cinnabar) are found from levels IX-III, blue and green ones only in levels VII, VIB, and VIA. Blue and green beads of apatite seem to supplant this form of painting in the later layers. Funeral gifts vary according to the sex of the dead: articles of personal ornament (Plate XC) are almost confined to women and children and weapons to the males (Plate LXXXIIIa). Certain gifts may indicate rank such as copper and lead beads and copper finger-rings, obsidian mirrors buried only with women, fine belt hooks and eyes (Plate LXXXIXc), probably part of leopard skin dress, and elaborate daggers found only with males. The rich of both sexes are provided with wooden vessels, boxes, baskets (Plates LXXXVI, LXXXVII), food remains, and in one case flowers. Pottery and figurines or statues of deities are never found in graves, and the only objects of clay ever buried with the dead are stamp seals, or pintaderas. All the types of funeral gifts have parallels in the houses and shrines.

CATAL HÜYÜK, A NEOLITHIC CITY IN ANATOLIA 209

Objects in everyday use are rich and varied and all show a high standard of technological development and, not surprising at Çatal Hüyük, a fastidious taste. Owing to the miraculous preservation of perishable materials, which elsewhere have not survived, we gain a precious glimpse of such crafts as weaving and wood-carving which appear to have been much more important than, for example, the production of pottery or stone vessels. The evidence for fine woven cloth is particularly impressive: the wool (assuming it is that and not bast) is combed, not carded, and the yarn is two-ply. No selvage has been found but there is a well preserved piece of a twined heading cord on a piece of plain tabby weave found inside a human skull. Other fragments show a shawl-like weave with widely spaced weft, still others show knotting resembling fish-nets. Tapes are also found and one piece of cloth shows a sewn edge. Fringes are frequent and appear in clay figurines. One woman wore a string skirt, the ends of which were weighted with thin copper tubes. As all the material is carbonized no traces of colour have survived, but as some goddesses are shown in elaborately patterned and coloured dresses, such must have existed. The abundance of paintings imitating kilims (woven rugs) puts this craft back to the neolithic period and thread dyed red has actually been found, suggesting that dyeing was equally well known. Where vegetable dyes were obtained is easy to see; some of the commonest weeds in the neighbourhood of Çatal Hüyük are madder (Rubia tinctorum), woad (Isatis tinctoria), and weld (Reseda luteola), which yield a deep red, a blue, and a strong yellow respectively. Bedstraw, dock, and others also present are wellknown dye-producing plants. The common stamp seals, often decorated with spirals and meanders as well as a host of other patterns, and including shapes in the form of hands and flowers, may have served to stamp patterns on to cloth and need not have been used to paint human skin. The presence of finely woven garments implies the existence of looms, spindle whorls, and loomweights. Skin and leather clothing is well attested at Çatal Hüyük and weaving of coiled baskets of straw in all shapes and sizes (Plate LXXXVIa) and matting of marsh grass for floor cover (Plate LXXXV) preserved in abundance. Polished bone pins (Plate LXXXIVb), wooden pins overlaid with copper sheet held women's garments fastened near the shoulder, hooks and eyes fastened belts and antler toggles the cloaks of males. Bone awls, polishers, and bodkins were used in leather working and basketry. Needles are rare and may have been made of copper. Other bone tools include cosmetic forks and spoons, ladles, scoops, and spatulae, and small horn and antler bowls, oval in shape. Sickles were made of antler or wood (Plate LXXXIIIb). Wristguards were worn by archers and the sling, a common weapon since the earliest layers, was evidently made of leather. Daggers had leather sheaths.

Wood was widely used; trees were cut with polished greenstone axes. Adzes and chisels of the same material including miniatures for fine work abound. All timber used was squared oak or juniper, brought from the hills and probably floated down the river. Wooden vessels were carved with stone tools out of fir and possibly other softwoods. Round and oval bowls (Plates LXXXVIb, LXXXVII) and dishes, sauceboats, boatshaped vessels, plates, egg-cups, and a variety of boxes, square, oblong, and oval, with well-fitting lids, knobs, and lugs proclaim the sophistication of neolithic woodwork. It is clear from the pottery shapes that, throughout, the neolithic pottery occupied a secondary position and was unable to free itself from traditional shapes in wood and basketry. The neolithic pottery is made from a fine clay mixed with grits and usually without any straw; it was built up in coils and thinned out by paddle and anvil. Its surface was, except in some of the earliest coarse ware, burnished. Lugs, horizontally or vertically placed, are more common than basket handles. Bases are flat, but there are also disc and ring bases or four L-shaped feet. Incision or other decoration is unknown except in the top levels, cardium impressions or barbotine are never used. When first found this pottery was called dark-burnished ware after the prevailing hue of cooking pots (Plate LXXXVIIIb), but on the Anatolian plateau this is a misnomer, as much of it is buff, grey, brown, pink, or red. It occurs first in levels X and IX, c. 6500, then disappears to re-enter the scene in improved technique at the end of level VIA, c. 5900 B.C., this time to stay and gradually increase in quantity. It is possible that the beginnings of pottery manufacture have not yet been reached and long before pottery appears clay balls, probably used as slingstones, were baked in ovens at Catal Hüyük. Baked clay was also used for the production of statuettes, figurines, beads, and pendants, spindle whorls, egg-shaped slingstones, and stamp seals.

The polished stone industry is highly developed at Çatal Hüyük and made use of nearly every variety that the neolithic people could obtain in and around the plain by trade and barter. Local limestone, calcite, greenstone, and volcanic rocks, Central

ÇATAL HÜYÜK, A NEOLITHIC CITY IN ANATOLIA 211

Anatolian obsidian, alabaster and calcite, West Anatolian marble, breccia, rock crystal, Syrian tabular flint, local coal, carnelian, steatite, and apatite of unknown provenance all were used. In the same category fall native copper, malachite, cuprite, azurite, galena, cinnabar, limonite, and a variety of ochres, sulphur, etc. None of these occur in the plain and their common use shows a most intensive trade.

Saddle querns, mortars, and pestles of volcanic rock, pot boilers of lava, greenstone, diabase, and serpentine axes (Plate LXXXIXb, chisels, and adzes, limestone and occasionally haematite polishers occur in nearly every house. Grinding and polishing was commonplace to these people and they had mastered the techniques of polishing obsidian without leaving scratches, the inlay of one stone in another or drilling minute holes through a vast variety of rocks to produce thousands of small stone beads (Plates LXXXVIIIa, XC). Shell was treated in the same way, for the production of beads and pendants, for finger rings, etc. Dentalium, imported from the Mediterranean, was used in huge quantities, but cardium, whelks, and cowries are rare and fossil oysters fairly common only in the later layers. Boar tusk was occasionally used, but less common than the teeth of wild animals (Plate XCa). Stone vessels are comparatively rare (Plate LXXXVIIIc) and were obviously regarded as luxury objects, but statuettes were carved in a variety of rocks. Polished maceheads are extremely common (Plate LXXXIXa).

The chipped stone industry, mainly in obsidian with a fair proportion of imported flint, is undoubtedly the finest in the neolithic Near East, and with a tool-kit of fifty-seven different types, many highly specialized instruments, Catal Hüyük man was lavishly equipped. The whole character of the industry is macrolithic and microliths are not only a rarity, but numerically negligible. Most characteristic are splendid weapons in obsidian, bifacially pressure-flaked: huge spearheads, large and small arrowheads-probably indicating the use of a short and long bow (Plate LXXXIIIa). Flint daggers, ground down to the required thickness, were then pressure-flaked on one side, with hilts of wood, chalk pommel, or a bone hilt carved in the form of a snake. No less specialized are fire-stones, often found in male graves with a lump of sulphur and tools which like our pocketknife combine knife, scraper, and fire-stone in one piece of flint and which nearly always show a pocket-sheen, having been handled with dirty hands and kept in a leather bag. Blades of all sorts, sickle blades, a vast variety of scrapers, a few burins, and cores make up the rest of this specialized industry. Hoards of obsidian, rough-outs or finished products are frequent below house floors and may have been the currency of the time and the capital of the family, for surely no man needed twenty-three identical spearheads!

We have reached the end of our summary of neolithic man's achievement at Catal Hüyük and it would be invidious to deny that this was the first real civilization on the basis that writing had not yet been invented. Nor would it serve any real purpose to compare this neolithic civilization with contemporary cultures elsewhere in the Near East, with Jarmo in Iraq, Tepe Guran in Iran, Khirokitia in Cyprus, or Jericho PPNB and Beidha in Jordan. Each of these had a different ancestry and shows a different character, only remotely comparable to the Anatolian phenomenon of Çatal Hüyük as long as the numerous undiscovered and geographically intermediate sites remain unknown. The impact of this civilization on the subsequent development not only of Anatolia but also of south-east Europe is already recognized, but how it affected the rest of the Near East, if at all, is still largely a matter of conjecture. It would be equally premature to speculate about the origin of this civilization with so much of the lower levels of the mound still unexplored. Evidence is slowly accumulating that the neolithic of Çatal Hüyük developed out of an earlier aceramic neolithic different from and more advanced than that of Hacılar and probably with a macrolithic stone industry. There are, moreover, a number of features in the neolithic of Çatal Hüyük which strongly point to a local Anatolian development, not from a microlithic Mesolithic, such as has been discovered on the south coast by our Turkish colleagues, but out of an Upper Palaeolithic, through an intermediate aceramic phase, which was probably of long duration, and may have started somewhere in the ninth millennium.

If such a unique development from the Upper Palaeolithic to the Neolithic will ever be traced is of course uncertain, and the chances are that it will not happen on a single site, but, nevertheless, one cannot help feeling that Anatolia offers the best chance and we can only hope that conditions will soon be favourable again in Turkey to resume this perhaps not undeserving task.

ÇATAL HÜYÜK, A NEOLITHIC CITY IN ANATOLIA 213

BIBLIOGRAPHY

JAMES MELLAART, 'Excavations at Çatal Hüyük, 1961.' First preliminary report. In Anatolian Studies, xii, 1962, pp. 41-65, pls. III-XVIII.

— — 'Excavations at Çatal Hüyük, 1962.' Second preliminary report. In ibid., xiii, 1963, pp. 43–103, pls. III–XXIX.

- ---- Çatal Hüyük, a Neolithic City in Anatolia, London (Thames & Hudson), 1966 (in preparation).
- P. A. BIALOR, 'The Chipped Stone Industry of Çatal Hüyük.' In ibid., xii, 1962, pp. 67-110.
- HANS HELBAEK, 'Textiles from Çatal Hüyük.' In Archaeology, spring 1963, pp. 39-46.
- "First Impressions of the Çatal Hüyük Plant Husbandry.' In Anatolian Studies, xiv, 1964, pp. 121-3.
- Studies, xiv, 1964, pp. 121-3.
 H. NEUNINGER, R. PITTIONI, W. SIEGL, 'Frühkeramikzeitliche Kupfergewinnung in Anatolien.' In Archaeologia Austriaca, xxxv, 1964, pp. 98-110.

NOTE

Photographs are by Arlette Mellaart.



View of Shrine VI. 61 with bucrania and bench in which are set seven pairs of horn cores of aurochs (Bos primigenius)





a. House A. III. 10, with hearth and oven, bench and platforms on left



b. House VI. 63 with connecting doorway on left and hearth in background



a. Shrine A. IV. 1, showing bricks in the wall, diagonal mark in plaster left by wooden ladder, fuel cupboard in wall, doorway in right-hand wall, bench and platforms on left. Above section of oven of superimposed Shrine A. III. 1



b. Three grainbins in storeroom of Shrine VI. 14



a. Well-preserved storeroom of Shrine VI, 61. Remains of screen in foreground and plastered beams in wall on right



b. Storage boxes of various shapes in storeroom of Shrine A. III. 1

PLATE LXVI



a. General view of building-level VI, looking west with Shrine VI. A. 31 in foreground



b. General view of Shrine area in level VI. Shrine VI. 10 on right and Shrine VI. 8 in background. Looking west



a. Shrine VII. 31 with plaster reliefs of goddesses



b. Painted plaster relief of pregnant goddess from cast wall of Shrine VII. 23

PLATE LXVIII



a. North wall of Shrine VI. 44 with leopards relief



b. North wall of Shrine VII. 8 with black painted figure of bull in sunk relief, doorway and panel of painted hands on left



Three superimposed bulls' heads in plaster with remains of frame, ram's head and collapsed goddess figure from west wall of Shrine VI. to



 Remains of relief of Twin goddess (upper part collapsed) with bulls' heads from west wall of Shrine VI. 14. Doorway on left leads to storeroom (Pl. LXIVb)



b. East wall of Shrine VI. 10 with bull's head above red-painted niche and pair of modelled breasts containing vulture skulls



a. East wall of Shrine VI. 8 with rows of breasts modelled over lower jaws of wild boar, gaps left by broken bulls' heads and earlier wall-painting of negative hands, in white on a red background



b. North-west corner of Shrine VII. 8 with panel of black and red hands and net pattern



a. East wall of Shrine VI. B. 8 with pattern of hands and red net



b, Detail of same painting with insects and flowers under net





PLATE LXXV



a. Wall-painting copying 'kilim' in white, grey, and red on west wall of Shrine A. III. 8



b. Wall-painting with red concentric circles above dado of black and red triangles outlined in white in north-east corner of building VIII. 2



a. Red vulture attacking headless corpse. Detail from north wall of Shrine VII. 8



b. Black vulture (detail) from east wall of Shrine VIII. 8

PLATE LXXVII



a. Wall-painting of city with erupting volcano in background. North-east corner of building VII. 14



b. Mauve and orange painted cross and other symbols from east wall of building VI. A. 66

PLATE LXXVIII



a. Copy of Red Deer hunt from south wall of antechamber of Shrine A. III. t Copy by Anne Louise Stockdale



b. Detail showing fallen stag attacked by two hunters

PLATE LXXIX



a. Fragment of hunting dance from east wall of Shrine A. III. r



b. Fragment from the southern continuation of the same scene



PLATE LXXXI



a. Alabaster figure of pregnant goddess from Shrine E. IV. $_{\rm 4}$



b. Limestone concretion suggestive of a group of figures. From Shrine VI, A. 10

PLATE LXXXII



a. White marble seated figure from Shrine A. III. 1



b. Complete baked clay figure of seated goddess from Shrine A. II. 1



e and d. Two other clay figures similar to b from Shrine A. II. ${\bf 1}$

PLATE LXXXIII



a. Bifacially pressure-flaked obsidian arrow-heads from male burial in Shrine VI. B. 20

b. Antler sickle from storeroom of Shrine VI, 14



a. Skull from Shrine A. III. 1 treated with red ochre and bearing impression of cloth skull cap



b. Bone hair-pin (?) as found with burnt burials in building VI. A. 5





a. Remains of carbonised coiled basket from storeroom of Shrine VI. 61



b. Wooden shallow bowl from earliest burials in Shrine VI. 10

PLATE LXXXVII



a. Carbonised shallow wooden dish (length c. 50 cms.) with carved handles, from storeroom of Shrine VI. 61



b. Oval wooden bowl from burial in Shrine VI. 10

PLATE LXXXVIII



a. Lump of earth preserving part of head necklace in situ. Level VI



 $b.~{\rm Black}$ burnished two-handled cooking pot. Level IV



c. White marble dish from male burial in building VI. B. 29



c. Polished bone belt hooks and eye from male burials in Shrine VI. 20

PLATE XC



a. Bracelet of stone beads and teeth of deer from female red ochre burial in Shrine 1X. 1



 b. Beads of various types including a spacer bead from disturbed burials in building E. IV. 11



c. Bracelet of carved serpentine and plain grey limestone beads. From female burial in Shrine VI, B. 15



d. Necklace of fine limestone beads and carved scrpentine bead. From woman's burial in Shrine VI. t