



Jericho

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Jericho



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JERICHO HAS BEEN EXCAVATED on a number of occasions, beginning as long ago as 1867. The most recent campaign consisted of six seasons' work between 1952 and 1957 by the British School of Archaeology in Jerusalem, in collaboration in some seasons with the American School of Oriental Research and the Royal Ontario Museum.

The excavations established a sequence of occupation that began in the Mesolithic period ca. 8000 B.C. and continued, though probably with some interruptions, until the end of the Middle Bronze Age, ca. 1560 B.C. Brief revivals took place in the Late Bronze Age and in Iron Age II, but the importance

of the original Jericho, beside Ain-es-Sultan, ends with the Middle Bronze Age. For the period from the fourth millennium onward the history and culture of the town are similar to that of many other Palestinian towns. Its unique contribution is the light it has thrown on the first beginnings of settlement. When the remains of the successive Neolithic stages were first discovered, Jericho provided the only known evidence of a large-scale settled community dating back to the seventh and eighth millennia B.C. Since then, other sites have produced evidence for periods approaching the same dates. Jericho remains unique as the only site that has produced a complete sequence

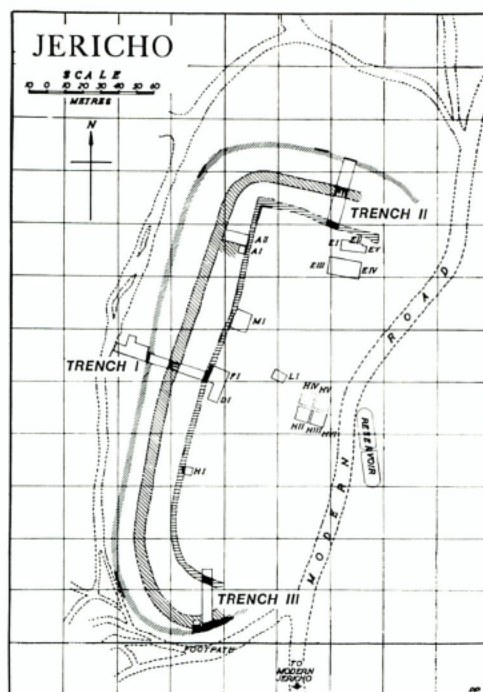
Jericho: the *tell* from the west, situated near the foot of the cliff bounding the Jordan Valley's western side. The mountains of Transjordan on the eastern side of the valley are in the background. Beyond the tell is the edge of the oasis of Jericho, watered by the spring that emerges at the eastern foot of the mound.

of development from nomadic beginnings to full urbanization.

The excavation of the total fifty feet of depth of the whole *tell*, covering at its stage of maximum extension about ten acres, has naturally been carried out only in a limited area. Nevertheless, bedrock was reached in five sites, widely spaced from the extreme north to the extreme south of the tell. It is likely, therefore, that representative evidence of the sequence of events has been recovered. The evidence of the earliest occupation came from a single site, Squares E I, II and V, toward the northeast end. On bedrock was found a curious structure which, from the associated finds, was certainly Mesolithic, of a culture allied to the Natufian of Mount Carmel. It consisted of a rectangle in which the natural clay, removed over the rest of the area, had been retained and revetted by stone walls in which had been set three stone sockets. The structure was certainly not a domestic one, and the most probable interpretation is that it is a sanctuary erected by Mesolithic hunters visiting Jericho, beside the spring, in recognition of its secular importance. The structure was ultimately destroyed by fire, for which a radiocarbon analysis gives a date of ca. 7800 B.C.

It is to be presumed that the men who erected this structure were nomadic like the rest of the Natufians, but at Jericho some of their descendants took the step forward of settling down, and thus the first step toward civilization. The evidence for this comes from Site M. There, the first thirteen feet of deposit above bedrock were built up by an innumerable succession of tramped earth surfaces, visible in section but barely traceable in plan, each ending against a slight hump. The humps must represent the bases of the superstructure of shelters of wood, skin and mud, shelters suitable for a people constantly on the move. But the deep accumulation of such remains shows that their occupants had developed a close attachment to the same spot. At first they may have returned seasonally, but eventually they settled permanently, and the evidence of this is that in due course the slight shelters were translated into solid structures, round like their predecessors but with solid walls of bricks, plano-convex with a hcg-back outline, and provided with a porch leading down into the slightly sunk interior. These houses appear above the deposit already described.

The structural sequence is coherent. More important still, so is the cultural. The flint and bone industries

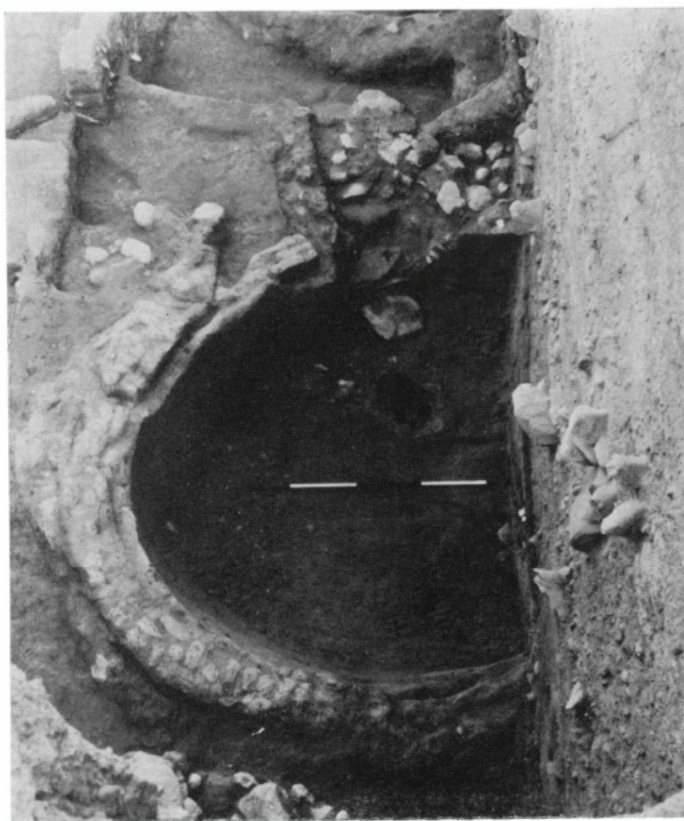


Plan of Jericho. The Pre-Pottery Neolithic A town wall was found in Trench II (north), Trench I (west) and Trench III (south). The innermost line shows the Early Bronze Age walls. The outer lines indicate the plastered scarp of the Middle Bronze Age defences (2nd stage) and the stone revetment at the foot of the final phase of these defences.

Mesolithic structure, possibly a sanctuary. A platform of natural clay (removed over the rest of the area) is bounded by stone walls of which two are exposed and the angle of a third is visible running into the far baulk. In the wall on the left are two stone sockets and a third broken beside them. The holes in the surface of the clay platform were cut down from higher levels.



Typical house of Pre-Pottery Neolithic A period, round in plan and slightly sunk below the exterior level. On the far side is a stepped entrance, presumably a porch. The steps were sometimes of timber. The typical plano-convex bricks appear in the foreground. Houses could be a single room, or two or three round rooms grouped together. In the courtyards outside were fireplaces, grinding stones and other installations. Photographed from above, looking down into the trench.



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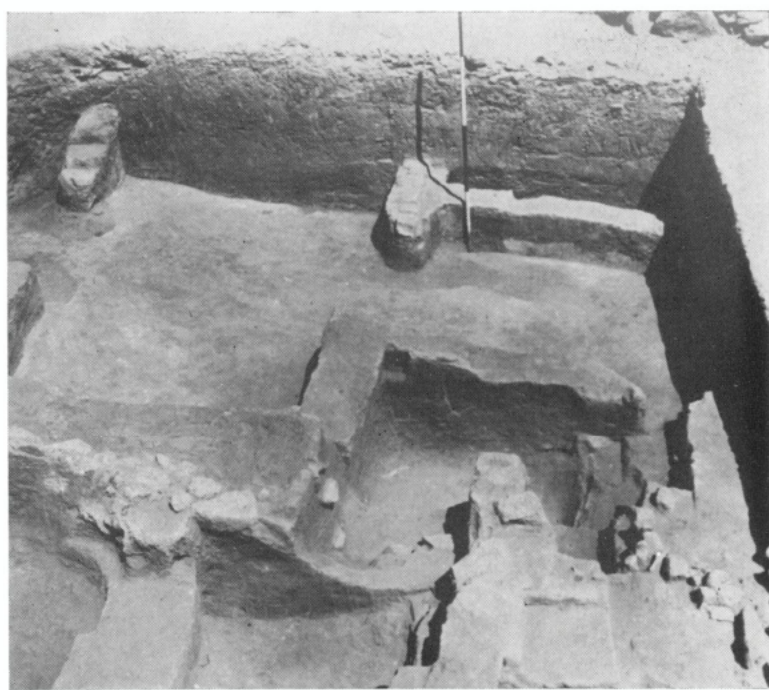
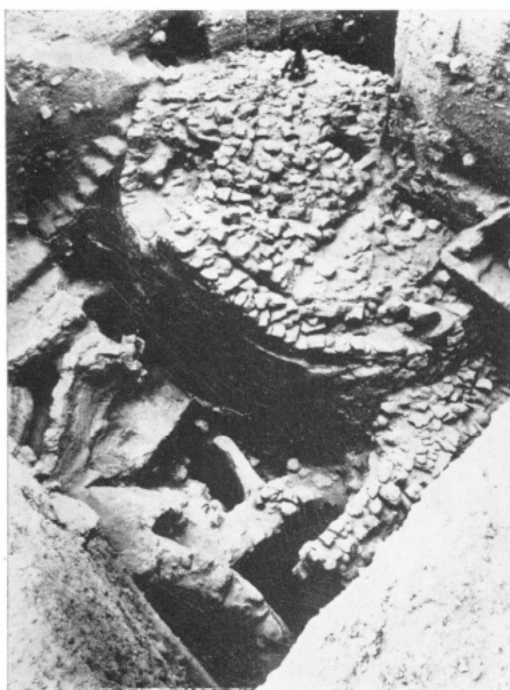
found in the Mesolithic structure are the ancestors of those in the thirteen feet of incipient settlement, which can best be described as Proto-Neolithic, and the industries of this deposit are the ancestors of those found in the round houses of the fully developed Pre-Pottery Neolithic A stage.

LIKE THE MESOLITHIC, the Proto-Neolithic evidence was found in one area only. But once solid houses were developed, the spread was rapid. These houses appear on bedrock from north to south of the tell. More striking still, soon after the houses had extended to cover an area of about ten acres, the settlement was enclosed by massive defences. In Trench II on the north and Trench III on the south these are ill preserved, but in Trench I on the west they are preserved in what must be near their original dimensions. The stone-built wall survives to a height of 20 feet, with outside it a rock-cut ditch 27 feet wide and 9 feet deep. Behind the wall was a circular stone tower, surviving to a height of 30 feet. The tower was provided with an internal staircase giving access to the tower from the interior of the town.

The illustration shows the very great impressiveness of these defences. They had long life, for there were four structural stages, including three complete

rebuildings of the town wall. After the final structural stage, levels of occupation continued to accumulate until they had almost reached the surviving top of the tower. At this point a destruction by fire of one of the houses provided material for a radiocarbon test, which gave a date of 6800 B.C. A date of 7000 B.C. for the first stage of defences is thus an absolute minimum.

The implications of such structures at this date are of course remarkable. It must be accepted that there was a developed community organization capable of undertaking such massive public works. The inhabitants of Jericho in 7000 B.C. were not a mere agglomeration of families. They formed a community which would combine for a common purpose. The explanation of this progress may be connected with the explanation of how means of supplying a group large enough to occupy closely packed houses in a site covering ten acres could be developed within the comparatively brief interval—at most a thousand years—from the time in which their ancestors were basically food gatherers. The environment of Ain-es-Sultan—abundant water, rich alluvial soil, a tropical climate—would be favorable for experiments in agriculture. But in its natural state the effect of the spring would have been comparatively local. To provide the large



(Left) Great stone tower of Pre-Pottery Neolithic A defences, associated with the final stage of the town wall on the right. To the left of this is visible the earliest town wall belonging to the first stage of the tower. This early wall was demolished when an outer skin was added to the original tower. In the left foreground are parts of successive structures (water tanks or storage areas). The succeeding houses were removed before the photograph was taken. (Right) A typical house of Pre-Pottery Neolithic B with rectangular rooms connected by wide doorways. The foreground shows smaller storage rooms. Floors and walls are plastered, with a highly burnished finish.

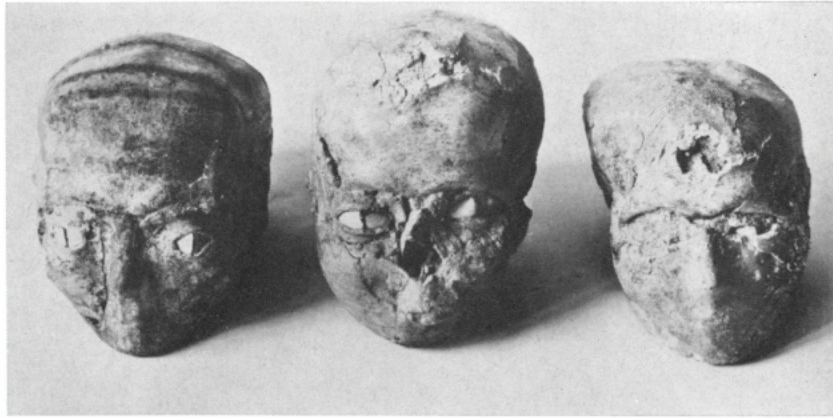
area which the wasteful methods of primitive agriculture and stock-breeding would require would have been possible only with irrigation. A system of irrigation needs control, and from this may have developed the community organization of which the defences are evidence.

This Pre-Pottery Neolithic A culture was undoubtedly indigenous to Jericho and shows all the stages of transition from a nomadic to a settled economy. The process was a lengthy one. The long sequence of defence structures has already been mentioned. In all areas excavated, layer after layer of the typical round houses succeed one another. In the later stages, the defences apparently were allowed to decay and the houses spread beyond them down the slopes.

JERICHO OF THE PRE-POTTERY Neolithic A stage came to an abrupt end. Over the remains of the first phase appears an entirely new type of occupation. A period of erosion intervenes between the two, with buildings on the edge of the mound denuded, and rain water gullies cutting down to a considerable

depth in more than one place. It is, however, impossible to estimate whether the erosion was the result of a succession of heavy storms in a single winter, or whether it took place over decades. What is certain is that thereafter a new people appears, with a fully developed culture including a developed architectural style. The new houses were far more sophisticated than their predecessors, with a whole sequence of rectangular rooms grouped round a courtyard, in a plan which is remarkably stereotyped from the one end of the tell to another. A special feature was the polished plaster floors, with the plaster carried up the face of the walls, which were of mud bricks but of a form completely new—elongated, with a herring-bone pattern of thumb imprints. The whole material equipment was new. The flint industry is of the type usually, though inaccurately, called Tahurian; the rich bone industry of the preceding stage disappears, and even the querns are of a new type.

The indigenous origin of the Pre-Pottery Neolithic A culture has been shown. Pre-Pottery Neolithic B was not indigenous. It is probably related to the Neo-



Portrait heads of Pre-Pottery Neolithic B. (*Left*) The finest example from Jericho. Its features are molded in plaster over a human skull including the mandible. The top of the skull is bare and may originally have had a wig or headdress. (*Right*) Three portrait heads with notable individuality of expression. These heads did not have the mandible included, and the chins are molded over the upper teeth. The eyes were made of sections of bivalve shells.

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lithic of Anatolia, where the remains of Çatal Hüyük have many similar features. The relation is that of a shared ancestor, and further research may find such an ancestral culture in Syria. The new people probably appeared at Jericho about the middle of the seventh millennium, and their culture may have lasted until toward the middle of the sixth millennium.

Like its predecessor, Pre-Pottery Neolithic B Jericho was populous and well organized. What is probably a succession of town walls has been identified on the west side. To the north and south the town extended beyond the limits of the earlier one, and its boundaries lay beyond the point where the Middle Bronze Age defences destroyed all earlier remains. The most remarkable product of Pre-Pottery Neolithic B is undoubtedly the series of ten portrait heads molded in clay over human skulls. Numerous burials were found beneath the floors of houses, and from many of them the cranium had been removed. Some at least of these crania, with in one case the mandible as well, were preserved and given the appearance of their owners during their lifetime. These plastered skulls must be interpreted as a form of ancestor worship, and by means of them remarkable light has been thrown on the artistic development of ca. 5800 B.C.

PRE-POTTERY NEOLITHIC ALSO came to an abrupt end. It remained resolutely independent of all pottery utensils. When pottery appears, it is in pits cut into the ruins of the pre-pottery town. These remains were

eroded but, as has already been said, the time-scale of erosion is difficult to establish and there are no absolute dates so far for the Pottery Neolithic cultures. The pits proved to be sites of huts, in which the stratification indicates a long sequence of re-cuttings, gradual fillings-up followed by a sequence of new pits. Pottery was abundant, consisting largely of very coarse straw-wiped vessels, but with a few finer bowls and jugs decorated with chevrons of red on a cream slip, to which the name Pottery Neolithic A was given at Jericho.

At a later stage normal buildings appear, with walls of bun-shaped plano-convex bricks. This stage is marked by the appearance of new pottery, usually covered with a matt red slip, with decoration in bands of herringbone incisions, jar rims of the type called bow-rims, splay-ended handles; to this the name Pottery Neolithic B has been given. Though there was doubt on the point for some time, it is now clear that the two types of pottery do represent two separate stages, the latter immediately succeeding the earlier. The whole stage is definitely retrogressive. The inhabitants were simple villagers living in huts, and their occupation may have been to a certain degree seasonal, indicating that they were pastoralists rather than agriculturalists.

The date of both the beginning and end of the Pottery Neolithic stage at Jericho is uncertain. A guess would suggest the first appearance about 4500 B.C., and the final stage must last into the fourth millennium. Pottery of both types has been found on other sites. None of these help to date Pottery Neolithic A,



Early Bronze Age town walls of mud brick, with stone foundations. The levels of the foundations show successive rebuildings. In the foreground appear houses built right up against the inner face of the walls.

but Pottery Neolithic B has some contacts with the Ghassulian culture, and the latter can be shown to overlap the arrival of the groups known at Jericho as Proto-Urban, for whom at Jericho there is a radiocarbon dating of ca. 3300 B.C.

At Jericho there may have been another gap at the end of the Pottery Neolithic stage, since there are no contacts between the earlier group and the Proto-Urban people. The appearance of the latter marks the beginning of a new epoch in many respects. The Jericho evidence suggests that in the last third of the fourth millennium groups of newcomers were reaching Palestine and that their amalgamation provided the basic stock from which grew the population of the Early Bronze Age. The most striking new feature that appears is the practice of burying in rock-cut tombs. No burials of either Pottery Neolithic group have been found. The newcomers were responsible for the earliest of the century-long succession of tombs cut in the slopes surrounding the site. The re-

mains of several hundred individuals were found in single tombs, and it is clear that the bones were stacked in the tombs after the flesh had decayed. With the skeletal remains were pottery vessels, and the characteristics of the vessels suggest that two successive groups arrived and subsequently amalgamated. The newcomers seemed to have lived on the town site in houses that were either round or had rooms with apsidal ends, but the full evidence from the various sites has not yet been correlated.

THE EARLY BRONZE AGE at Jericho seems to emerge out of the Proto-Urban, though there is the possibility of an additional cultural element. This is a fully urban stage, for the greater part of which the town was enclosed by mud brick walls. The complex of the structures in all areas excavated suggests a thriving population, and the many rebuildings of the town walls, sometimes in new positions, shows how necessary it was to keep the defences in repair, either



House of Middle Bronze Age Jericho. On the left is a street with stone-cobbled steps ascending the hill, the drain beneath it appears in the foreground. On the right are shops and storerooms. The living quarters would have been on an upper storey. The houses were destroyed by fire. In the background are streaks of burnt material which was washed down over the ruins of the walls after the destruction of ca. 1560 B.C. Above these streaks a line of stone represents the foundations of a wall—all that remains of the Late Bronze Age occupation, just below the modern surface.

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against the occupants of neighboring Palestinian towns or against invaders from the east.

In one area seventeen successive stages in the town walls can be identified. The seventeenth was violently destroyed by fire and its destruction marks the end of the Early Bronze Age town, probably ca. 2300 B.C. The catastrophe was the work of nomadic invaders who can be identified as the Amorites, and the succeeding period can best be described as Intermediate Early Bronze – Middle Bronze. The newcomers for long only camped on the site, and when they ultimately built houses, they were of flimsy construction. They never built a town wall. The greater part of the evidence concerning them comes from tombs, and the different categories of tombs and offerings show that the social structure was tribal, and emphasize the nomadic character of the population. About 1900 B.C. there was another complete break. New groups once more brought an urban civilization, and the pottery and other material evidence make it clear that the newcomers of the Middle Bronze Age were closely linked with the population of the Canaanite towns of Coastal Syria.

ONCE AGAIN JERICHO was a fortified town. The evidence for this is restricted to a small area on the east side, for most of the Middle Bronze Age strata were removed in subsequent denudation phases. The early defences consisted of mud brick walls, similar to those of the Early Bronze Age. These were succeeded by something very different. The full stratigraphical evidence has still to be worked out, but it seems likely that the change came in the second half of the eighteenth century B.C. The new defences consist of a steeply sloping bank, revetted at its foot by a stone facing, with the town wall standing on its summit. This type of defence can be traced from Carchemish on the Euphrates to Tell-el-Yahudiyeh near Cairo, and is clearly to be associated with the Hyksos, warrior bands who dominated Syria and Egypt in the eighteenth and seventeenth centuries B.C.

Some of the best evidence of the material cultures of the Middle Bronze Age at Jericho comes from the tombs. The burial practice was that of interment in rock-cut tombs, with a succession of burials in each tomb; they were in fact family vaults. With each individual was placed the possessions he would require in the after-life—food, furniture and personal toilet equipment, but curiously enough no provision



Tomb of the Middle Bronze Age with the skeleton of the principal burial on a wooden bed. Beside him, a wooden table with joints of meat on a platter. Around the wall are jars which had contained liquid, vessels for eating and drinking and a basket of toilet equipment. At the rear are the remains of earlier burials, another adult, an adolescent and a child, pushed back to make room for the final ones.

at all was made for spiritual needs. The environment of the Jericho tombs resulted in the survival to a unique degree of organic matter, and therefore in those tombs in which there were no later disturbances evidence has survived concerning the wooden furniture, certainly that of the contemporary houses, of the basketwork, textiles and food, which makes an invaluable contribution to the knowledge of the life of the period.

The latest Middle Bronze Age houses were violently destroyed by fire. The destruction can with great probability be associated with the expulsion of the Hyksos from Egypt; it may be the work of the Egyptians themselves between ca. 1580 and 1560 B.C., or that of the groups expelled from Egypt. It is at any rate clear that at Jericho is found no evidence of the sixteenth century occupation that is found, for instance, at Megiddo and Tell-el-Ajjul. Corresponding to this gap in material remains are layers of wash on the tell. The first evidence of reoccupation, from the finds on the tell and in tombs, belongs to the second half of the fourteenth century B.C., with a terminal date of 1325 B.C. If the destruction of Jericho is to be associated with an invasion under Joshua, this is the date which archaeology suggests.

The remains of this fourteenth century occupation were almost entirely destroyed by erosion. Overlying these erosion levels are buildings of the seventh century B.C. The end of this occupation comes presumably with the Babylonian destruction. Thereafter Tell-es-Sultan ceases to be the nucleus of Jericho, and successive centers of the town of this name are to be found within the oasis.

Miss Kenyon's article will appear this month as "Jericho: Oldest Walled City" in the book *Archaeological Discoveries in the Holy Land*. Published by Thomas Y. Crowell Company, the volume was compiled under the auspices of the Archaeological Institute of America from articles that have appeared in *ARCHAEOLOGY*. This collection of firsthand reports by eminent archaeologists covers, in picture and text, the most significant finds in Palestine over the past twenty years—finds dated from prehistoric times to the thirteenth century A.D. (See special offer to AIA members on page 241.)