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The Excavations at Beth Yerah (Khirbet el-Kerak) 1944-1946

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Source: *Israel Exploration Journal*, Vol. 2, No. 4 (1952), pp. 218-229

# The Excavations at Beth Yerah (Khirbet el-Kerak) 1944-1946\*

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## 3. THE NORTHERN AREA

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THE southern area was excavated partly in the first and partly in the second campaign, while all the work done in the northern area belongs to the latter.

In this area a trench was dug, 50 m. long from east to west and 10 m. wide from north to south. This original trench had to be widened until the area excavated finally extended over 2475 sq. metres.

In the beginning of the excavation there appeared an Arab wall of basalt blocks, 1.20 m. wide and 35 m. long, as far as could be ascertained. This wall, as well as other similar constructions, were removed after recording.

Three extensive constructions were found below these late buildings: (A) a Late Roman thermal establishment, (B) a wall with towers built of ashlar masonry, and (C) a great building of the Early Bronze Age.

### *A. The Late Roman Therms*

The bath was composed of two parts: the frigidarium and a hypocaust cellar (see plan fig. 1).

The *frigidarium hall* was almost square (11 by 10.5 m.). It had its principal entrance from the west. The main door was 1.50 m. wide. A secondary entrance was found near the south-western corner of the south wall which was 1.10 m. wide. In the east wall a marble threshold was found *in situ*. Apparently there was a third entrance on this side, 1.75 m. wide. The plan of the building obliges us to assume a fourth entrance from the room over the hypocaust.

The frigidarium was once paved with marble slabs, fragments of which are still visible. Where the pavement was missing traces of the slabs have been preserved (Pl. 17 B).

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\* Concluded from *Israel Exploration Journal*, Vol. 2, No. 3, 1952, pp. 165-173.

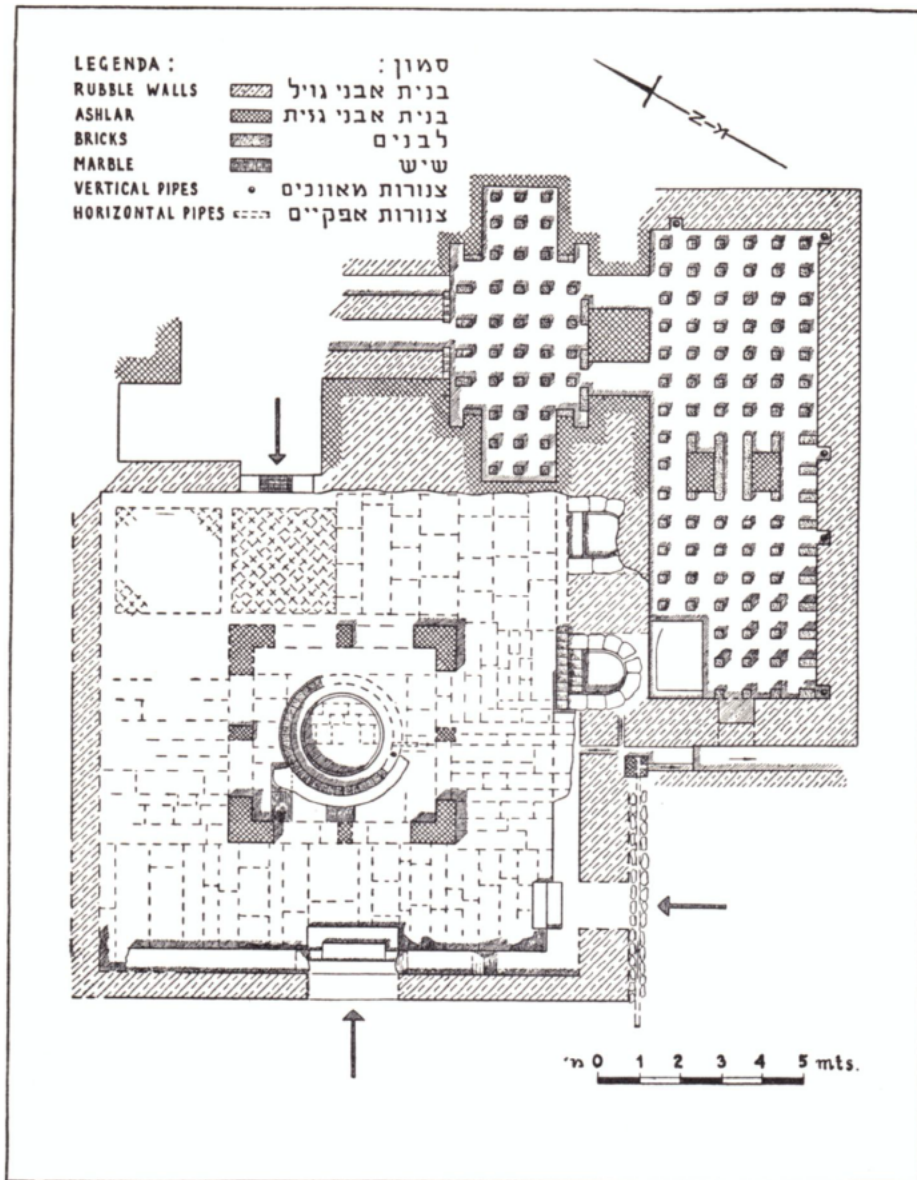


Fig. 1: The Roman therms.

A round pool occupied the centre of the hall: its diameter was 2 m., and its depth 0.75 m. It was built of rubble, but its interior and floor were lined with marble. An opening of a water-pipe leading to the pool was found in the wall on the south side. A round bench encircled the pool; it was made of burnt

bricks, and was lined with marble. Small fragments of this marble lining were adhering to the brick wall. Here and there on the western side, i. e. opposite the main entrance of the hall, were found the foundations of a semi-circular rubble partition wall curving along the bench for about a third of its circumference. This partition might have served to protect the bathers both from the winds blowing through the west door, and also from being seen from the outside.

Grouped around the pool were the foundations of four double, L-shaped pillars, forming a square of 5.50 m. The pillars were of ashlar, lined with marble. Half-way between the pillar foundations smaller impressions appeared, apparently forming the foundations of narrow columns or pillars which bisected the spaces between the corner pillars. The whole seems therefore to have formed a kind of domed pavillion above the pool. Coloured and gilt mosaic cubes, stuck to plaster, were found among the debris on the floor of the hall, proving that the walls or the dome were decorated with mosaics.

Rubble benches ran along the western and part of the southern wall of the hall. In the centre of the bench between the main door of the hall and its south-western corner, was a kind of semicircular headrest. It is possible that the other benches had similar rests. The benches had been plastered with several layers of plaster reinforced with the ribbed potsherds.<sup>10</sup>

The width of the western and northern walls of the hall was ca. 0.65 m. The southern section of the east wall and the whole southern wall were twice as thick as this (up to 1.30 m.), for on these sides the hall bordered on the caldarium and tepidarium and the stronger wall was required to strengthen the resistance to the outward stress of the arches in the hypocaust cellars, to prevent a cooling-off of the air in the two heated rooms, and to obtain sufficient space for the bath-tubs sunk in the thickness of the wall.

The second part of the bath preserved was the *hypocaust cellars*. These were built in the shape of an L. The depth of the cellars was 2.80 m. The foundations of big stone pillars divided the short arm from the long arm and the long arm itself. In one place the passages between these pillars were narrowed down by an addition of bricks. It seems that these foundations, together with the ashlar pillars built into the walls of the cellar, served as bases of arches which were to lend additional strength to the floors of the upper rooms. These floors rested

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<sup>10</sup> Cf. the gateway to the Umayyad palace at Kh. Mafjar, D. C. Baramki, *Quart. Dept. Antiq. Palest.*, 6, 1938, Pl. XLIII, 2.

partly on the arches, but to a larger extent on pillars of burnt bricks (*suspensurae*). Rows of such pillars filled the whole space of the cellar and were built of standard bricks (21 cm. a side, 3 cm. thick). A layer of mortar 3 cm. thick joined one brick to another. The faces of the pillars were plastered. The interval from one pillar to another was 40-42 cm., i. e. double the measure of the bricks. In the south-western corner of the cellar one pillar stood *in situ*, topped with parts of the floor of the upper room. An arch constructed of bricks and half-bricks sprung from the vertical pillar, 90 cm. in height. Each layer of bricks projected a little beyond the rim of the layer below, until the resulting diagonal touched the opposite one starting from the other pillar. Above this arch there were three layers of double-sized bricks (*bipedales*) which supported the marble floor of the room above the cellar.

The floor of the cellar was made of hard cement. The cellar itself was surrounded by a thick wall (1.30 m.). In the long arm, this wall was built of a mixture of big and small rubble stones, joined with mortar mixed with many sherds. In the short arm, the walls were lined with ashlar and filled with rubble. The square niches in these walls are of special interest. Inside the niches three pottery pipes were found *in situ*, joined together by flange-joints. Some square pipes with many openings (*tubuli*) were also found, especially along the walls. All these pipes served to bring the hot air from the cellar to the *sudaria* above.

There was no similar arrangement of pipes along the south wall. There the brick pillars touched the walls directly. We may conclude therefore that the room above the short arm of the hypocaust cellar, which was immediately above the opening of the furnace, and which had a special arrangement for the piping of hot air from below, was the warm room of the bath (*caldarium*); while the western part of the long arm, which was the furthest removed from the furnace and which lacked the piping from the hypocaust, served as a *tepidarium*.

In the north-western corner of the long arm there was a solid base of bricks in the cellar (1.80 × 1.25 × 0.85 m.). This base touched one of the two apsidal bath-tubs made in the north wall of the *tepidarium*.

In the western end of the bath there was an opening, above which the remains of an arch could be seen. This opening was later-on blocked with small rubble and mortar.

The second opening of the cellar was placed at the northern end of the short arm. At this spot there were two narrow passages built of rubble. The eastern

passage (0.50 m. wide) was on a higher level than the western one, and apparently served as a means of entering the cellar. The other opening was 0.75 m. wide and on a lower level. Its walls were found blackened with soot and on its floor was a stratum of ash and soot 0.10 m. thick. This was therefore the furnace which heated the bath.

Outside the furnace was a small room (*praefurnium*) and west of it another small room (5 m. by 1.90 m.), which served probably as store-room for heating materials. This latter room was built of thick rubble walls.

Water for the bath was supplied by a pipe which came from the south-west and which diagonally crossed the earlier EB building (Pl. 17 A). It is quite probable that this pipe-line continued to the great Tiberias aqueduct, which begins in the Wadi Fejjas. Remains of this aqueduct were seen at a high level above the Kibbutz Kinnereth. The bath conduit proper was built of pottery pipes, joined together flange-like and set in a thick cover of stones and cement. The pipe ended near the southern wall of the hall. At its end there was *in situ* a stone pierced with three holes forming a T. The three arms of the T allowed the water to be directed respectively towards the pool in the hall, the bath-tubs and the outflow channel of the bath. This channel was connected with the pool and issued under an arch below the southern wall of the hall; it then turned towards the south-western corner of the bath and continued eastwards to the Lake of Galilee along the southern wall of the hypocaust cellar. Its maximum depth was 1.74 m., its width 0.60 m. Its walls were covered with hydraulic cement.

#### B. *The Fort*

The remains of a fort built of ashlar on rubble foundations were visible to the north of the bath.<sup>11</sup>

*The small finds and the dating.*—The small finds in the bath and fort areas included two Umayyad coins on the floor of the hall and four fragments of a bilingual inscription, most of which was in Greek and the last line in an unidentified script (Georgian?) (fig. 2). The Greek letters indicate a date in the sixth century. The fragments of the inscriptions were found on the floor of the hypocaust cellar. The pottery found included Rhodian jar-handles, ribbed cooking pots and ring-base bowls.

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<sup>11</sup> This fort and a basilical building (a synagogue?) inside it were completely excavated in 1950 by Mr. P. L. O. Guy on behalf of the Israel Department of Antiquities. The 1945-46 finds need not therefore be detailed here.

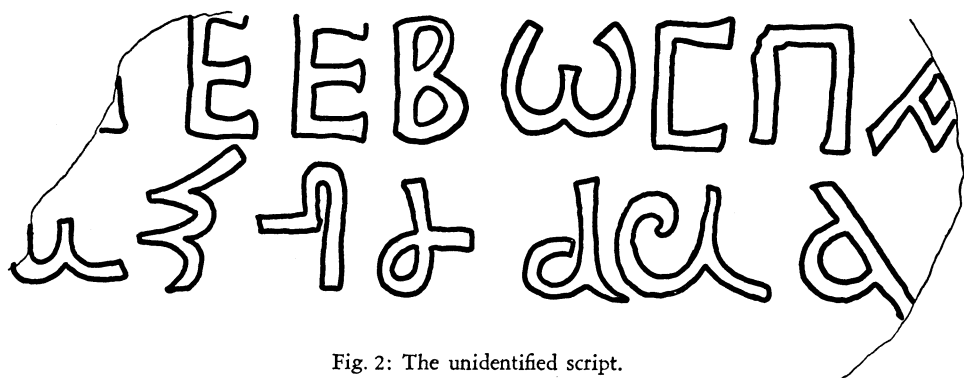


Fig. 2: The unidentified script.

The various phases of settlement in this area in the later periods can be provisionally defined as follows: (i) A temporary Hellenistic settlement (the Rhodian jars); (ii) The fort (2nd-3rd cent. A.D.); (iii) The original bath (4th or 5th century A. D.), which rested on the wall of the fort and could not have been erected as long as the fort was used for its original military purpose; (iv) Repairs of the bath: change in the style of the paving of the hall, filling-in of the store-room and covering of the space thus gained by another pavement. (The 6th cent. inscription might be connected with these later changes); (v) The destruction of the cellar roof and the fall of the inscription with other debris into the cellar (7th cent.—in consequence of the Persian or Arab invasion?); (vi) Renewal of settlement in the Arab Period above the ruins of the bath (see above, p. 218).

### *C. The Early Bronze Age III Building*

This building extended over an area of ca. 1200 square metres. Its plan was nearly rectangular, with almost perfect right angles ( $88^\circ$ ). It was constructed of big basalt blocks. Its length from east to west was 40 m., its breadth from north to south 30 m., the width of the walls was ca. 10 m.; their height 0.80 to 2.00 m. from the foundation, i.e. 4 to 9 layers (see plan, fig. 3, and Pls. 17 A, 18 A).

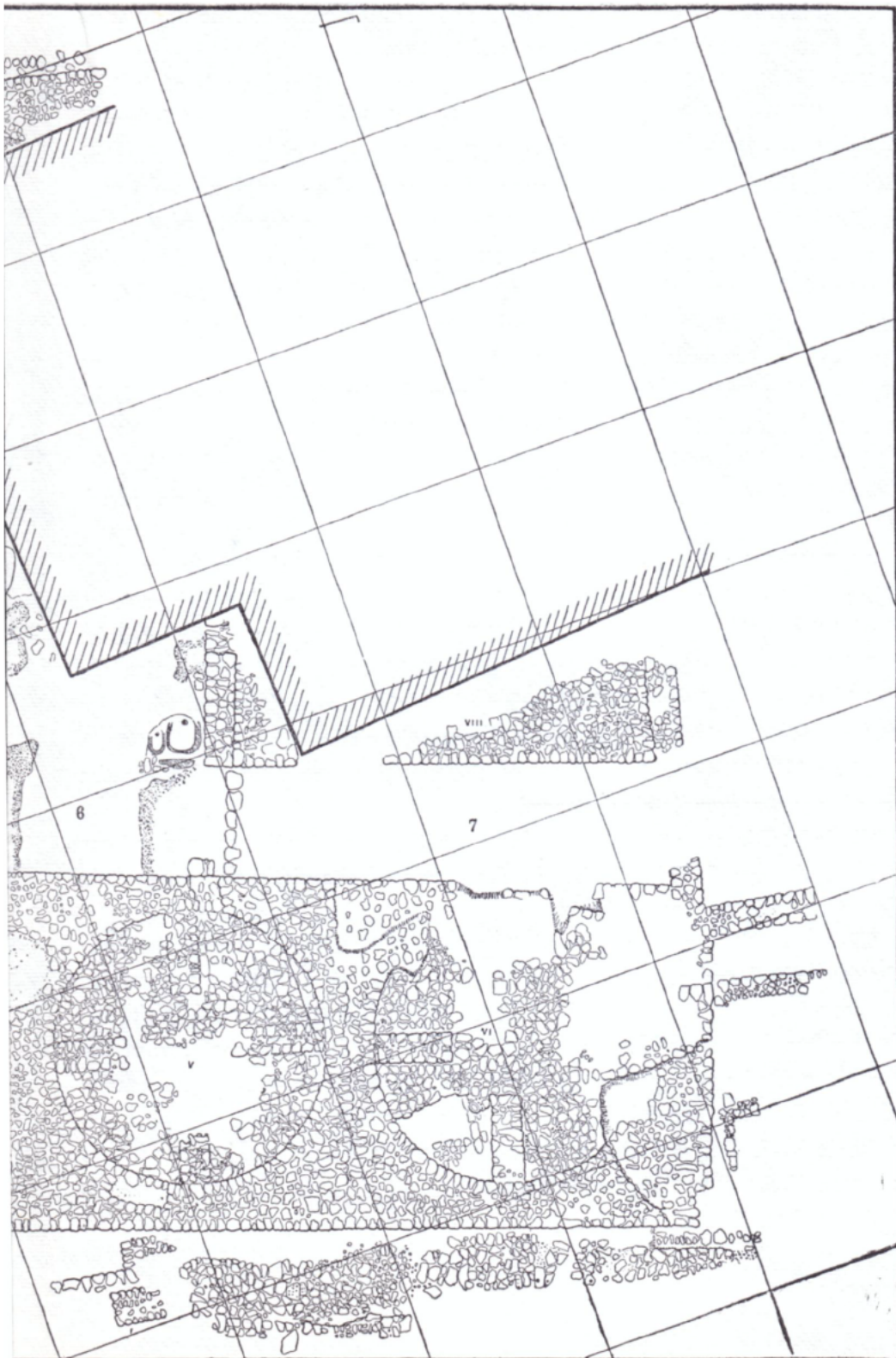
Eight big stone circles were sunk into the surface of the stone wall. There were four stone partitions, each 2 m. long, in every one of them. These were laid from the circumference of each circle pointing towards the centre, and divided its interior into four sections. The partitions ended before reaching the centre of the circles and are oriented in each circle exactly in the four principal directions. The interior surface of the circles between the partitions was paved with stone one layer thick. The breadth of the remaining part of





**Fig. 3: The Early Bronze Building: I—VIII the Circles; 2—the Hall; 3—Square Room (sounding in depth**





6—the Court; 7—the Gateway; 9—Courtyard of a House.

the wall between the circumference of the circle and the edge of the wall varied from place to place between 0.60 m. and 1.50 m.

The building had paved streets running north, west and south of it. The width of the streets was 2.50 m. In many places their paving has been destroyed because of later building operations. At the western end of the northern street was found a staircase of five stairs, which were attached to the northern wall of the building. They rise from east to west up to the crossing of the two streets. The width of the stairs was 3.50 m. (see Pl. 18 B). Among the paving stones of the streets there were a certain number with shallow cupmarks. At a distance of 2.50 m. to the west and south of the building (i. e. beyond the streets) there were various walls parallel to those of the main building. The north-eastern part of the big building was destroyed in the course of the construction of the later baths (see above, p. 218).

Circle I: Diameter 8 m. Its south-western part was destroyed during the construction of the Roman fort. Three of the projections are well preserved, the fourth is completely destroyed.

Circle II: Diameter 8 m. Its northern part was destroyed during the construction of the later fort. Two of the partitions have been preserved in their entirety, the third only for a length of 60 cm., while the fourth has disappeared entirely.

Circle III. Diameter 9 m. Three of the partitions are well preserved while the fourth one and part of the flooring of the circle were destroyed when the water conduit of the later bath was laid across the circle.

Circle IV. Diameter 7 m. Three of the partitions are preserved while the fourth one was completely destroyed.

Circle V. Diameter 8 m. Three of the partitions were well preserved, as was half of the fourth. The paving in the centre of the circle was completely destroyed by later constructions.

Circle VI. Diameter 8 m. Two of the partitions were well preserved, whereas the two others and part of the paving were destroyed by later constructions.

Circle VII. Its diameter could not be established, because most of its circumference has disappeared below the walls of the later bath. Parts of two of the partitions can be clearly seen. In one of the sections there was an oven made of mud, covered with a considerable quantity of soot.

Circle VIII. Only a few traces could be seen of this circle, because it was almost entirely covered by the later baths.

Altogether, eight circles were uncovered entirely or in part. From the plan

of the building it may be inferred that there existed a ninth one, covered up entirely by the later bath.

This Early Bronze Age building was entered through a gate at its south-eastern end. Its width was 7 m. The gate gave access to a court 25 m. in length. Near the threshold was found an oven of half-burnt mud which rested on the south wall. Opposite it another oven was found, constructed in the same manner, but in two parts; the inner one was oval while the shape of the outer one cannot be now established. The measurements of the inner part were 0.75 and 0.60 m. and opened toward the north. In the middle of the opening, which had a width of 0.50 m., stood a column which was joined by arches to the two side walls; the latter turning inwards and upwards. In the middle of the oven was debris, apparently belonging to its roof. Within this debris was found a pottery fragment with four holes, apparently the key-piece of the vaulted roof. As stated above, other fragments of half-burnt mud were found outside the inner oven; we have thus one oven within another. In the centre of the inner oven was a ribbed pottery stand and near it a bowl. Both were of characteristic burnished Kh. Kerak Ware. A third oven was in the north-western corner of the court.

In the west wall of the court was an opening which led to an enclosed space, viz. a hall paved with pebbles (Pl. 19A). In this space two stone bases were found, which were meant to support either columns of wood or statues. In the north-western corner of this 'hall' was a corridor, 2.50 m. long and 0.80 m. wide, which led into circle I. In the western wall a similar corridor was found leading into circle II. There was a stone threshold in the southern wall, to which one could mount by stairs and reach the top, between circles IV and V.

In the course of excavating this building we found a multitude of pots and potsherds of the third phase of EBA, and among them many of the type known as Kh. Kerak Ware. Figurines and a rounded potsherd, to which were attached two heads of cows, were also found (Pl. 19B). Many broken and blackened bones of animals were found in several loci, especially in the open court near the ovens, together with carbonized olive kernels, soot and other traces of fire. From the evidence of the pottery found the building must be assigned to the Early Bronze Age III.

This ancient edifice is of very great interest. As far as we have been able to determine, no similar construction has come to light in the excavations in Palestine, in the Near East, or even in other parts of the Ancient World.

The purpose of this edifice is difficult to establish. It is, of course, obvious that we have to deal here with a public building of some importance. The ancient inhabitants of Beth Yerah seem to have invested an enormous amount of labour in its construction. It may be assumed that it served as the centre of one of the principal activities of their city.

From the various possibilities the following merit consideration: the building might have been (a) a fortress, (b) a public granary, (c) a palace, or (d) a sanctuary.

(a) The first hypothesis seems excluded by the thinness and weakness of the walls surrounding the circles. Besides, the site of the building does not seem suitable for this purpose.

The second suggestion, viz. that of a public granary, cannot be accepted for this reason: On the floor of circle VII were found the remains of an oven made of burnt mud clay; similar ovens were perhaps installed in the other circles, but have been destroyed since. In addition there were more ovens (already described) in the open court. The presence of these ovens in the building precludes the possibility of its being used as a public granary.<sup>12</sup>

(c) The third possibility, that of a palace, is not borne out by the plan of the building.

(d) There remains therefore only the last assumption, viz. that we have here a sanctuary.

The existence of an open court with four ovens, one of which contained a pottery stand joined to the floor of the oven, and a pottery bowl in its vicinity, support the suggestion that the purpose of the building was a religious one. The oven might have served as an incense stand. The fact that the partitions in all the circles point exactly in the four main directions of the compass also suggests that they were so constructed with a definite ritual purpose. On all these grounds one may conclude that this construction was the sanctuary of Canaanite Beth Yerah.

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<sup>12</sup> Since the above was written, a model of a Helladic granary from Melos was published (S. Marinatos, *Bull. Corresp. Hellen.*, 70, 1946, p. 342, fig. 4), which bears a striking resemblance to our building (circular bins surrounding an open court, entrance from the same direction, etc.). This find increases the probability that the building was a granary after all and the ovens a later addition, once it went out of use. If this hypothesis is accepted, it bears striking evidence of the agricultural development and social structure of the Early Bronze settlements in the Jordan Valley. It presumes a plentiful grain crop stored in a public building connected with either a religious or secular authority.

*The soundings in depth in the northern sector.*—In squares 10-20 we began a sounding in depth. A round oven made of half-baked clay was found in the first levels. It had two holes, each 0.05 m. in diameter, one being situated on the south side and the other on the east. These holes apparently served as draught-vents. Surrounding the oven was a construction of unhewn stones. Near it were many potsherds, all of the Hellenistic Period.

After the removal of the oven and of the constructions surrounding it, the remains of a square room (3 on plan) and an enclosed court were found at a greater depth (9). The room was paved with pebbles, on which was found a considerable quantity of potsherds. The court was paved with beaten earth. In the north wall of the room was a threshold which led to the court, in which two burnt levels were observed. From the pottery found in the room and the courtyard, they should be assigned to EBA III (= Beth Yerah IV).

Below this building there was another stratum, 2 m. thick, in which traces of brick constructions could be clearly observed. Many potsherds and broken vessels were found in the course of the excavation, all of which belong to EBA II (= Beth Yerah III). At a depth of 4 m. some amphorae were found *in situ*, one with band-slip decoration. On the amphora was a deep bowl with a flat base and two knobs. Inside the amphora were fragments of the bones of an infant. Another big amphora with a flat base was found in the same stratum. Inside it was a large and deep bowl, which also contained the bones of an infant, about one year old, and several ivory beads in the form of mushrooms. Traces of mud-brick buildings were seen in several places. This level belongs to Beth Yerah II. In the lowest level, which reaches a depth of 5.20 m. there were jars, likewise containing child-burials, and sherds with grey-black burnishing, apparently of the Late Chalcolithic Age. In this level there were no traces of buildings. It belongs to the Late Chalcolithic (= Beth Yerah I).



A : Early Bronze building: General view, looking NE. Pipeline of Roman bath traversing the surface.



B : Roman bath: The pool in the hall.

PLATE 18



A: Details of Early Bronze building and paved street.

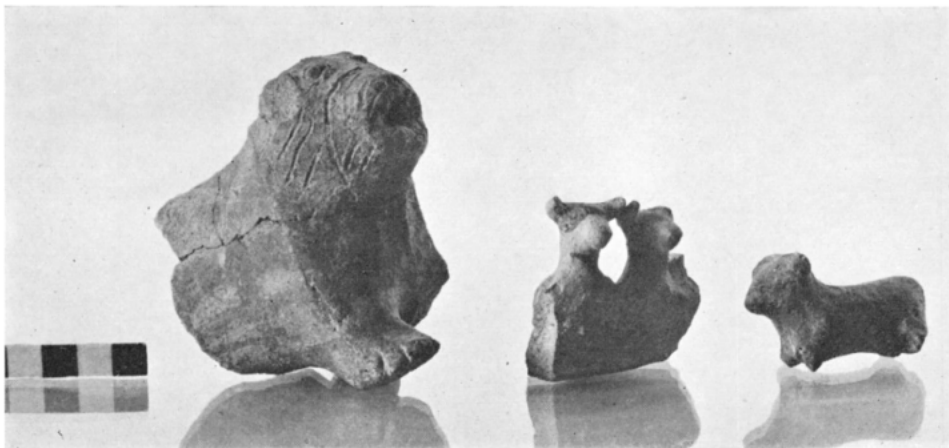


B: Staircase near Early Bronze building.





A : Early Bronze building: Court-yard paved with pebbles.



B : Pottery figurines.