

## REPORT OF EXCAVATIONS AT TELL-EL-HESY DURING THE SPRING OF 1891.

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ALTHOUGH Tell-el-Hesy was reached on March 5th, the weather rendered it impossible to begin work until Monday, March 16th. In the meantime some measurements had been taken, and a crop of barley had been bought, which covered the field where we had to dig. Later the crop of beans covering the Tell itself had to be purchased. Following the advice of Mr. Flinders Petrie, with which my judgment accorded, I began my excavations in the northern part of what he marks on his map as the West Town, the section worked being bounded by a line running from the north-west corner of the mound to a point about 350 feet west, and by a line running thence 231 feet south. To have turned over the whole mass of earth in this field would have required the whole season, and though the place was known to be Amorite, I decided to make trial trenches first. In eight days we had examined the field by digging about 30 trenches, my orders to the workmen being to uncover native clay, though in some cases it was not necessary to reach this. The smallest depth of débris was 1½ feet, and the greatest 17. We found all the characteristic varieties of Amorite pottery, as described and drawn by Mr. Petrie, *i.e.*, comb-facing, ledge-handles, thick-brimmed bowls, polished burnishing, peculiar spouts and hole mouths. That the latter were apertures for drinking, I do not feel sure, for later on in the Tell we found similar holes in various vessels, including the thick Greek drab bowls; some vessels contained two holes near together, or a number of holes. The painted Phœnician also occurred, sometimes being found in the lower depths, under archaic looking Amorite pottery. Jars filled with fine earth, and sometimes containing smaller vessels, were found buried, as in the place Mr. Petrie calls the cemetery. These were usually of the Phœnician type, and may belong to a later period than the débris of the field, but one bowl, 17 inches across, having ledge-handles, containing fine earth and a little brass serpent ring, was clearly Amorite. Not far from this we found a human skull with a bowl and lamp evidently placed in front of it. The distance between the two bowls being about the length of a man, suggested that these might have been placed at the head and the foot of a body, but on carefully uncovering the earth, we found that the bones between these were not human, and included the teeth of animals.

We made a most careful search for walls. Brickwork full of straw was often found, and great care was used in trying to determine its face and direction, but though repeatedly we thought we had found a wall in position, further examination always proved it nothing but consolidated ruin and decay. There were many signs of burning, while some of the ruins seemed to be the result of overthrow. I finally dug a pit, 27½ by

17½ feet at the top and about 12 feet deep, where we reached the clay, hoping that by thus uncovering a larger area we might attain more satisfactory results. A study of the sides of this hole revealed a curious irregular stratification, with lines of brick, rough stonework, burning, and decay, which indicated the ruins of three or four towns. Evident brickwork was found here as elsewhere, but in a ruined condition, out of which no order could be evolved. Workmen who, later in the Tell, traced obscure brick walls quite cleverly, and who last year uncovered walls for Mr. Petrie, were quite baffled by the decay in the west town. I was reluctantly obliged to decide that it was in a hopelessly ruined and consolidated condition, and that to spend any more time upon it would be unwise. In the large pit, at a depth of 8 feet, we found the fragment of a clay tray, with a rim an inch or two high, and a diameter of about 4 feet. It had a red face, with the polished Amorite burnishing in crossing lines. It was evidently in position, as it seemed to have been placed in a bed of mud. It was probably a place for baking bread, a fire of twigs being kindled in one part of it, and the dough being placed in the other, or else placed in the heated tray and covered over with ashes. At the bottom of the hole, in the native clay, there was a squared hole, like a grave, about 3½ feet deep, filled with decayed brick.

One and a half feet under the soil in this west town there was found a piece of cement flooring, of an irregular shape, curving upwards for an inch or more at the edges, about 6 feet long and 4 feet wide, with a narrow outlet at one end, descending apparently to a pit. This was probably some sort of a press for wine or dibs. Near by, and hardly more than two feet under the surface, was found a rough room with mud walls, in which there was very little straw, of varying thickness. In the course of digging various objects were found, such as stones with holes, used for weights in weaving, flints, door sockets, fragments of bronze, including a small cow-bell, a stone worn at the side as if by a rope, &c. Rude pavements and irregular masses of rough stones built together were found in various places. Long thin lines of black decay suggested human burials. Out of justice to the owners of the land we filled all trenches and pits dug, and smoothed the surface for the ploughing.

The work on the Tell has been necessarily one of detail. The work of determining the historical periods from a study of the east face, and of tracing the various city walls by a judicious series of trenches having been done with so much skill by Mr. Petrie, there remained for his successor the more laborious task of cutting down the mound itself in search for walls of dwellings which might remain, together with any objects which might happily be found. I saw at once that to cut down the whole mound by layers covering the entire area would be such slow work that at the end of the season but a small depth could be reached without increasing the workmen beyond one's powers of superintendence. If it were merely a question of removing rubbish it would be easy keeping 150 men hard at work, but when each man has to be strictly watched lest he destroy some wall or overlook some small object, I find

35 men quite enough. Our average was under this, as we had to reduce the numbers while waiting for the tram and while laying it down, and the last two weeks the numbers were very small on account of the harvest, which finally compelled us to close the work on May 15th. Thirty-five diggers means over a hundred work-people, for each man has two girls or women or boys to carry the earth to the trucks or to the side of the hill. I chose the northern half of the mound to begin on, because earth could be more easily disposed of at that end. As I wrote the Committee, my original plan was to cut down through the whole northern half, but three weeks' work determined me to further limit the area to the north-east quarter of the mound.

Beginning at the well at the centre of the east side (*see* Plate III, Mr. Petrie's "Lachish") I drew a line to the west, and from a point on this, about 100 feet from the well, I drew another line about 120 feet long, somewhat north-west to the northern slope. Within these limits we have cut down the mound to an average depth of 12 feet 4 inches, the greatest depth (near the well) being 18½ feet.

Accordingly, in round numbers, we have thrown in seven and a half weeks down on the river bed 140,000 cubic feet of earth and stones. Our area of work is now, of course, bounded on the south and west by cliffs of our own making, while at the east we are from 7 to 18½ feet nearer the river bed than when we began. At the north we have almost reached the base of what Mr. Petrie calls Manasseh's Wall, so that following his chronology we have been working in the later Jewish periods. The accompanying tracings of Petrie's plans will give a rough idea of the section worked. I may add that from a distance the Tell now produces a strange effect, having lost so big a slice from its north-east corner. I enclose a poor photograph showing the depth of the excavations.

In the first three or four feet of digging we found many graves, made in the rubbish of the last constructions. One grave was in perfect condition—a space hollowed out in the shape of a coffin with slabs placed across the top. It contained a skeleton, the skull being towards the east, and bracelets made of blue glass, such as are worn to-day. In connection with human bones and other supposed graves, there were bracelets of glass and of twisted brass, with anklets, precisely such as may be bought in any Arab market, beads and agates, such as the Arabs bury with their dead women. Thin glass was also found, also pipe heads, of a somewhat different shape from those in use to-day. A brass medal of the time of Abd el Hamid, notched so as to be tied under the chin, may or may not belong to the grave period, or it might have been dropped by a woman tending the crops on the hill. Another grave had not only slabs laid across it, but was partially lined with stones. This graveyard is undoubtedly Arab, and may not be more than a century or two old. I place it as far back as that as, until we covered it, its existence did not seem to be known, no objection being made to my digging there by the Arabs. The method of burial is such as obtains to-day.

These latest constructions in the rubbish of which the graves were dug were evidently very rough. We found quantities of stones from the river bed, in one or two cases built into rude walls, in others laid in rough pavements, not complete enough to plan. The remains of brick were mouldy and decayed, and very few traces of walling remained. The pottery showed a large quantity of thin, white-faced sherds of the late Phœnician or Jewish type, I should judge. One large jar was found whole, standing on its mouth upon stones, evidently thus placed.

The foundations of the first town of which any sort of a plan could be made were reached at a depth of about  $6\frac{1}{2}$  feet at the south end of the section, and at about  $3\frac{1}{2}$  feet at the north end. As the hill slopes down towards the north in a grade of 1 foot in 10, one would naturally expect that the bases of various towns had a similar incline. Such, however, is not the case, the north and south parts being nearly on a level—if anything, the north end being a trifle higher. Perhaps during the last period the buildings were higher and more numerous in the centre of the hill, thus producing more rubbish, and the rain scouring may have been greater towards the north. This town was in a very ruinous state, hardly worth planning, but I give a drawing to show its condition. As will be seen, the walls were the best in the north-west quarter, where a clean face was obtained and the thickness could be measured. The dimensions of one brick were  $14\frac{1}{4}$  inches by 9 by 5. The dozen tannûrs, or pit ovens, which were found proved that the ancient inhabitants of the Tell baked their bread in the same manner as the modern Syrians bake theirs. A pit is sunk in the floor of the house, or in a hut outside, two or three feet in depth, and is plastered with mud, which is built up for a few inches above the floor. The ground is levelled at the bottom of the pit, and salt is placed upon it before the layer of mud is plastered down. My man, Yusif, found salt in place under the mud. The tannûrs we found were irregularly circular, one having an average diameter of 85 centimetres, another of 80 centimetres. The sides were baked hard, showing use. I may explain that a fire is made at the bottom of the pit, and the dough, flattened out by hand, is stuck against the heated sides to bake. The first tannûr we found had been repaired by potsherds where the mud sides had given way. Fragments of similar ovens had also been found in the first foot or two of soil. A small pit with a diameter of 22 inches, and with thick sides of yellow brick, may have been used for storing corn.

In one place we came across a quantity of fine red earth, such as is used to-day in colouring the mud floors and walls, which are then polished. We found several jars evidently buried with intention. Mr. Petrie suggests a connection with heathen sacrifices in the apostate Jewish times for the jar burials in what he calls the cemetery outside the town enclosure. Near one of the ovens a jar, 24 inches in height, and 44 at its largest circumference, was found lying on its side. It seems to have been filled with fine soft earth after it had been put in position, as the earth seems to have been pressed down by the hand, being lighter on top. It contained bones, a stone, a flint, and a potsherd. Near it was a

long cylindrical vessel with no handles. I do not feel sure of the purpose for these jar burials. We dug for two days in the "cemetery" and found, as did Mr. Petrie, jars with flasks inside, but no bones. Ibrahim Effendi suggests that they may have been buried by the inhabitants when fleeing from an approaching enemy. The stonework in this period was all rude. Only a few squared stones appeared, and these showed no clear dressing. Two stones with markings were found, of which I took a squeeze, and give a rough sketch.

The most characteristic pottery included the Greek drab bowls (*see* No. 222, Plate IX, Mr. Petrie's "Lachish"), the immense loop handles (Nos. 225, 226), small Jewish jars, and a thin brittle ware of purplish black, mostly in the shape of jars with full bodies, short necks, and large mouths, with two small handles reaching from the neck to the mouth. Polished Greek black and red ware was scattered through the town; also fragments of immensely thick vessels, sloping to a point like a walking-stick, or ending in a knob. Hundreds of potsherds were turned up and examined by me every day, in the unfulfilled hope of an inscription, the men having strict orders to throw nothing away.

After planning the remains of the first town we cleared them away, and began to dig towards the foundations of the second, which we found at a depth of  $10\frac{1}{2}$  feet (from the top) at the south, and about  $5\frac{1}{2}$  at the north end. The first thing to be noticed was a curious stratification of fine clear yellow sand near the east side, covering an irregular space 17 feet by 10, on an average 6 inches deep. In some cases the sand overlaid stone pavements. In one place it lay between two strata of burnt stuff. This second town had been fiercely burned, as ashes lay almost everywhere, in some places to a considerable depth. It looks as if the sand had been a heap collected for making mortar, and after the houses had been destroyed by fire and the place deserted for a time, had been blown by the wind into the wavy stratification in which we found it. A new feature in this town consisted in the pits dug in the rubbish of the town below. These were irregularly circular, with diameters varying from 5 to  $9\frac{1}{2}$  feet. In some cases they had been lined with mud, which by a sharp tap of the pick could be made to fall off from the sides. Some had a fine coating of whitewash on walls and flooring. A fine thread of white in the cut made by the blow of the pick sometimes revealed this infinitely fine white coating which had remained for hundreds of years.

At Bureir (six miles from the Tell), pits for storing wheat are still used as in other parts of the country, notably the Hauran, but they usually narrow towards the top to a small mouth which is closed by a stone. The pits in the hill had straight sides, 3 or 4 feet high. I think, however, that they are granaries, the narrowing upper part of their walls having been ruined down. If the original depth of the pits was 10 feet, it is possible that they have belonged to the first and not to the second town. They were usually filled with fine feathery ashes, easily distinguishable from the more conglomerate decay in which they were dug. Much broken pottery was found in them. The sides of one pit showed a curious strati-



fication of burning at an angle of  $50^{\circ}$ . One pit had deep rat holes in its sides. Grains of wheat and barley were found in several of them. However, that these were remains of what had been stored in the pit is not clear, as in this fiercely burned town I found a stratum of burned barley covering a space ten feet square, to a depth varying from two inches to a foot. We also found burned sesame, pulse, grape-seeds, &c. When Dr. Post has examined these I will report his opinion.

In the town above, walls in two cases gave a hint of taking a circular course, showing that similar pits were found there also. From the plan it will be seen that one pit is surrounded by walls. A curious incident in this town was a quantity of snail shells, hundreds in number, forming quite a feature in the stratification. I confess to no theory on this subject. Yusif, however, thought it confirmed the suggestions of Greek influence, as shown by the pottery, as he had heard the Greeks were fond of snails! Several stone door sockets turned up. A ruined fireplace looked as if it might have had compartments on either side for baking. Tannûrs also appeared.

At the north end of the town we uncovered two houses in very fair condition; I speak of them as two, for though contiguous there seems to have been no door between them. The east wall of the room marked A on Plan is worn away by the destruction of the cliff. A brick taken from its outer built wall measured  $20 \times 10\frac{1}{2} \times 6\frac{1}{2}$  inches. The inside bricks were smaller. The bricks were plastered over with a mud coating. Room A contained an oven in the floor. The north and south walls were 3 feet thick, and west wall 2 feet 7 inches. The floor of the room marked B was 6 inches higher, and was spread over to a depth varying from 5 to 8 inches with burned barley. The brick, originally of a brown colour, containing little straw, was burned a salmon colour by the fire which had destroyed the grain stored for some winter hundred of years gone by. Between rooms A and D, D and E, B and C, doorways were found  $2\frac{1}{2}$  to 3 feet wide. Between E and C, and E and F, the walls were 4 feet thick. Between F and H the wall was only 1 foot 8 inches thick. These houses seem to have been built against the north city wall, but in the town below we found the face of the city wall a few feet further in, *i.e.*, to the north. Still, it is possible that the city wall may have been thickened in the later town. The brickwork is much better in shape and material than that found in the modern villages of the district. In room C we found a stone about a yard long, roughly scooped out to hold water, possibly for a smith to dip the iron in. The walls of the rooms F, G, H, and I were built of a redder brick, containing more straw. H had been fiercely burned, and many fallen bricks were found, so hardened by fire that it was difficult to break them with a hammer. To the west of H we found many brick weaver's weights. Some were round, some shaped like pears or turnips, all had a punctured hole by which they could be fastened to the wooden pegs on which the skeins were wound. They varied from the size of a top to that of a large fist. I find in the weavers' places in Beirût rough stones used as weights, but no artificially rounded stones or brick weights

as at Tell Hesya. The only objection to supposing these rounded bricks weights, is that it would take such a quantity to weigh the skeins down. In the photograph of pottery which I send these weights may be seen. In room I there were many jars, mostly broken, some containing seeds. The pottery had a dirty, oily look; possibly oil had been stored in this room, which may have accounted for its fierce conflagration. The recess (Z), in the north wall of this room, had a place like a seat, and to the left of this was a higher recess (Y) like a modern yuk, where beds may be placed in the daytime. In the walls of the recess (X) there were holes scooped out, such as are found at Malula and wherever mud houses are built for storing small objects. The walls here were good to a height of 3 or 4 feet. J is evidently a small storeroom, with a partition which never went to the roof. At first we supposed the round constructions to be pillars, but finally decided that they were originally hollow, evidently places for store. The western partition was of one thickness of large bricks, one which we took out whole being  $20 \times 20 \times 5$  inches. This closet was also filled with burned cereals, some of which were clinging to the mud plastering. Near the foundations of this town was found our only inscribed object, a rude lampstand with a few letters scratched across its base, but out of the centre—**APHEBAP**. The pottery of this second town varied little from that of the town above; the Greek black and red polished ware was quite as plentiful, and if anything the pieces with patterns were more common. A very few pieces with Amorite characteristics turned up, such as ledge handles; also some stray fragments of the painted Phœnician ware.

After clearing away the walls of the second town we dug down for about eight feet at the south end of one section, and some four or five at the north end, nearly to the base of what Mr. Petrie calls Manasseh's wall. So consolidated was the stuff through which we had to dig, that it is difficult to say whether we were working in the débris of one or of two towns. In some places the soil was clayey and of a greenish-grey, very hard to cut through. Rooms A, B, and C, in the plan of the second town, were built on ruins of similar walls in this third period. Signs of other walls were found, but not satisfactory enough to plan. Many pits were found, usually more symmetrical than in the town above. One, with a diameter of  $9\frac{1}{2}$  feet, apparently a perfect circle, had straight sides  $3\frac{1}{2}$  feet high, and contained many potsherds. Another, with a diameter of 13 feet, seemed to have an outlet, as a line of stones led to the edge of the Tell. The stones were fallen upon each other, but from the spaces between it seemed probable there might have been a sort of drain. Against this theory was the fact that the end of the supposed drain was a trifle lower at the pit, but on the other hand it is possible that the stones here may have sunk and settled, as they were placed on light débris, while at their east end they were laid on hard brickwork. Pit ovens were found and a fireplace on which a pot might be rested. The pottery differed little from that above, but the deteriorated form of the Amorite burnishing was rather more common, and some new shapes appeared. The Greek pottery

was as common as ever, and the fragment with the figure was from this period. A stone, 18 inches long by 12 wide, was found with a clean cut in it four inches deep, dressed evidently with the long stroke picking. Also another dressed stone turned up, evidently flaked and pocked. Through all the towns many sea-shells were found, some punctured with holes, evidently intended for ornament. Fragments of iron and bronze appeared—large nails, handles of vases, a knife, &c. Also many flints.

It was a disappointment to find this part of the work so unprofitable. An examination of the east face of the Tell gives some hint in advance of what may be expected below, and if we go on digging in this section we will soon come to a great many stones. Whether these will turn out all to be rough like those above, or hewn and carved like the pilasters found by Mr. Petrie in the south-west part of the mound, it is impossible to say. From the great number of pits found it looks as if the dwellings may not have been so numerous in the part of the Tell where we have been digging, but what is true of the towns above may not be true of those below. Having got so far down in this section it is my plan, if the Committee approves, to continue work in the same area in the autumn, and if everything is favourable, I may hope to get down towards the Amorite period, if not into it, though the latter is improbable, as the amount of stuff to be removed from this fourth of the hill is enormous. When the base of the earliest Amorite town is reached, it can be decided whether the results obtained from this section will justify the additional two years' task of removing the rest of the hill. If the extremely consolidated condition of the west town and the absence of objects therein is any criterion of what may be expected in the Amorite layers of the Tell, the prospects for rich finds are not very bright.

I cannot close my report without expressing my great sense of obligation to my friend, Mr. Flinders Petrie, who, during the month of January at the Pyramid of Meydum in Egypt, gave me instructions in the many details of excavation in general, and of the work at Tell-el-Hesy in particular, with a cordiality and patience that were unfailing. So clearly had he described the place to me, that when I saw the Tell for the first time, its details had a familiar air. Such genius as his for excavation is indeed rare. With Ibrahim Adham Effendi el-Khaldi, descendant of the great Khalid who took Syria for Mohammed, my relations were most friendly from beginning to end. He filled his post in a gentlemanly and honourable manner. In an unsettled country of Bedawin his presence was a source of security.

The gratitude of the Fund is due to the Rev. Dr. Elliott, of Gaza, for his kindness in permitting the tram and tents, &c., to be stored at the Mission premises during the summer.

My foreman, Yusif, was an invaluable aid, as he had a talent for disentangling brick walls from the surrounding débris, and for getting the best out of the workmen, and that not by severity as much as by tact and by kind and just treatment.

*June 10th, 1891.*