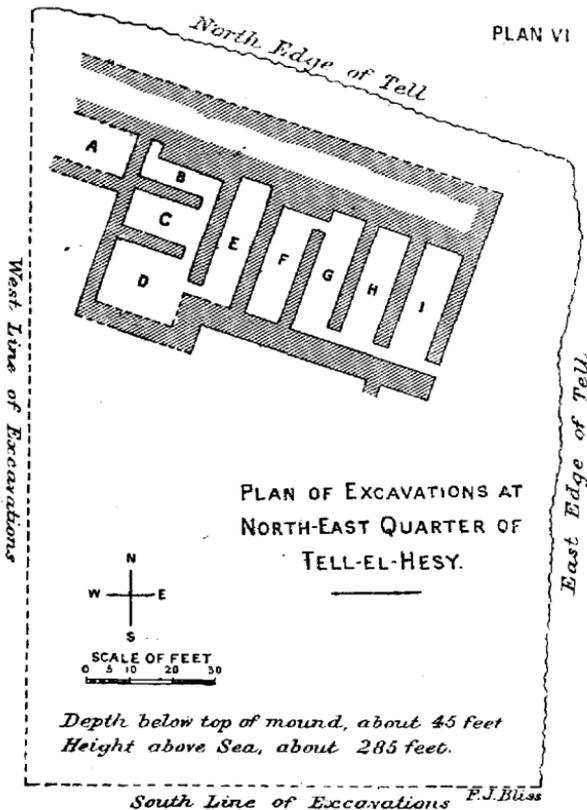


REPORT OF THE EXCAVATIONS AT TELL EL HESY
DURING THE AUTUMN OF 1892.

By FREDERICK JONES BLISS, B.A.

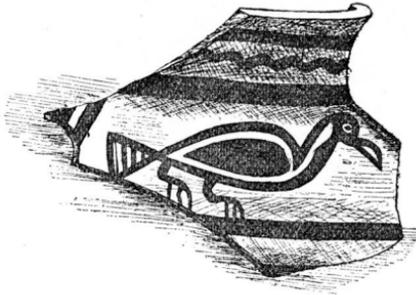
THE actual work of excavation was resumed on September 27th. When the season closed in June we were working in the 5 feet of stuff below the great Ash-bed. It was here that the tablet was found. A series of rooms along the north wall was left only partly explored at the end of



the season. These we found quite untouched in the autumn, and our first work was to clear them out. They are shown on Plan VI. They belonged to some large public structure which I take to be a fort, from the symmetry of the rooms, and from the fact that they were on the great wall at least 17 feet thick. The walls were preserved only 2 or

3 feet above the door-sills. The rooms will be seen to connect with doors, 3 feet wide. The wall between E and F was much ruined, and we may infer a door, though it was not actually detected. The part of the Tell between this building and the east edge was very much ruined. I think that doubtless the building continued further east. It was a most melancholy job to clear out room after room of its fallen brick, and find absolutely nothing, even broken potsherds being very scarce. The building, by its level and by its relation to the Bed of Ashes, being just below this, evidently belongs to the time of the tablet. Was it the "Governor's Palace"? Was one of its seven large rooms once the "Archive Chamber"? Tormenting questions! For either the place was suddenly destroyed by the enemy who searched the rooms for everything valuable or without value, or else it fell into natural decay, and the inhabitants in moving to other quarters took with them all their possessions, leaving no trace. The former is more probable, as the place

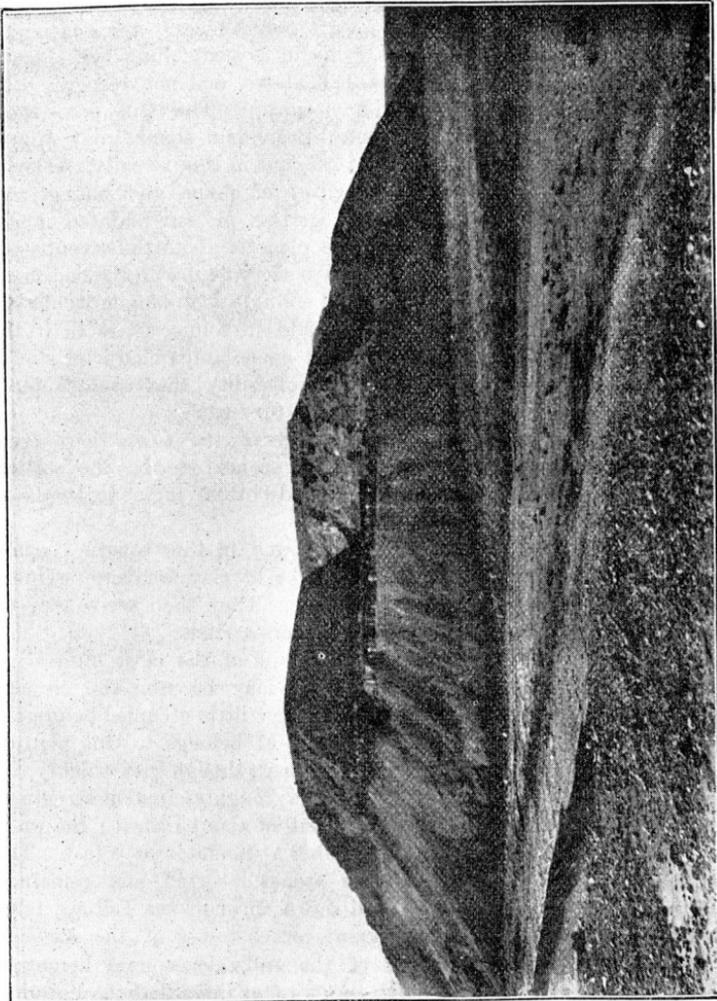
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where the tablet was found (not far from the east edge, towards the north), was a mixture of ruin and burning. That other tablets once existed in the Tell is probable. That they were carried away when the eastern part of the Tell was worn away by the encroaching of the stream is possible. That a few may still lie scattered in the heart of the Tell, in the two-thirds of the town yet standing under the Ash-bed, is also possible. But that the ruined condition of the one-third of this town which I have thoroughly examined should forbid us to hope for anything like an untouched archive chamber or collection of tablets in the remaining two-thirds is strongly my opinion.

The tablet dates this town at 1400 B.C., and a scarab of Amenhotep III confirms the date. The Phœnician pottery still appeared, though the lamps were found but very rarely. The pointed-bottom juglets belong to this period, and are not found more than a couple of centuries later. We found a small slab in pottery with a female figure in low relief, similar to the idol figured in my last report, and assigned to about 1100 B.C., save that it had a head-dress coming down to the neck, and then curling up in a scroll. I have sent a cast.

Directly under this town were the ruins of another, which, from the depth of accumulation and other indications, could not have been much earlier. We may date it at about 1450 B.C. It is given on Plan VII, though the rooms between the letters I J K L probably belong to an



GENERAL VIEW OF TELL EL HESY, SHOWING THE EXCAVATIONS. (From a Photograph.)

earlier period, say, 1500. Near the wall C D we found the interesting bit of Ægean pottery (Fig. 53) with the painted bird. Dr. Petrie found Ægean pottery of this same date at Tell el Amarna. The colours are red, yellow, and black. In general, the pottery of this period was not

characteristic. The salient features of Amorite pottery had not come in to any prevailing extent, and the majority of sherds, if found alone in another place, would not have furnished a clue to date. The opponents of the theory that levels may be dated by rough pottery probably have this sort of sherds in mind. But what shall be said to the sudden change when we reach the levels just below those figured in Plan VII? Here the ledge-handles, peculiar spouts, comb-facing, thick-brimmed bowls, black-brown smutty surfaces, come in as controlling types, types appearing but not prevailing in the Tell above, and not recognised by that careful observer, Prof. Petrie, in any country. The tablet dates these lower periods at about 1600-1700 B.C. Individual shapes may appear and reappear centuries after their first use, but in this so-called Amorite pottery we have a half-dozen peculiarities of shape and facing, and when all these peculiarities occur together in an undated place, common sense would naturally assign the place to about the seventeenth century B.C. Another case of distinctive pottery occurs in the enormous Greek loop-handles, 500-700 B.C. To find a single loop-handle would not be conclusive in dating a place, but to find in connection with it the peculiar-ribbed bowls, and broad-brimmed open lamps characteristic of the period would greatly increase the probability that such a place should be dated not far from the seventh century B.C.

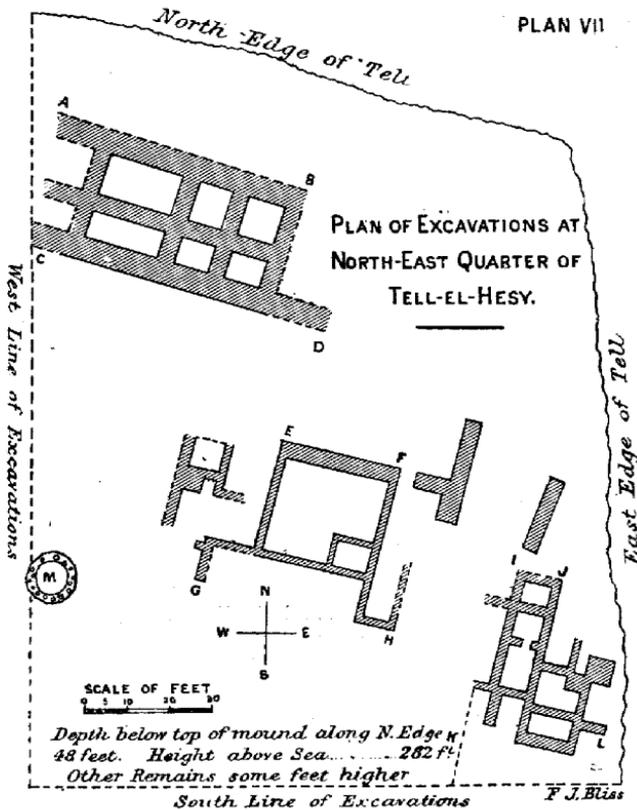
Along with the uncharacteristic pottery of the town there were specimens of the Phœnician ware. What seemed to be the earliest was a group containing a bowl and a pointed-bottom juglet to be dated about 1500 B.C.

A singular case of reappearance was found in this town. In my report for the Spring Season of 1891 I spoke of clay weavers' weights found at the level to be dated 800-600 B.C. They then were seen no longer till we came to this level, some 800 years earlier.

I now come to what may turn out to be one of the most interesting discoveries we have made. On Plan VII may be seen the circular place M; as this part of the Tell had been very little occupied before the period of the Ashes, I cannot say whether M belongs to this plan or to Plan VI, but as the Ash-bed extended over it, though not thickly, we may date it no later than 1400 B.C. It was a roughly-circular structure, with a diameter from outer wall to outer wall of about 12 feet; the walls were about 2 feet thick, leaving the chamber a diameter of 7 feet. The walls were of mud, with some rough stones inserted, and remained standing to a height of 4 feet. As all down through the Tell we have never (with the exception of the great corner tower of the Amorite forts) found more than one-fourth of the probable original height of walls left standing, and usually much less, we may infer that the building was originally at least 15 feet high. On the top of these walls appeared holes, descending in the walls to an apparent depth varying from 1 to 3 feet. One hole was bell-shaped. Some were in the centre of the walls; others, near the inner and outer edges; their diameter at the top varied from 2 to 4 inches. From the outer solid face of the walls it was

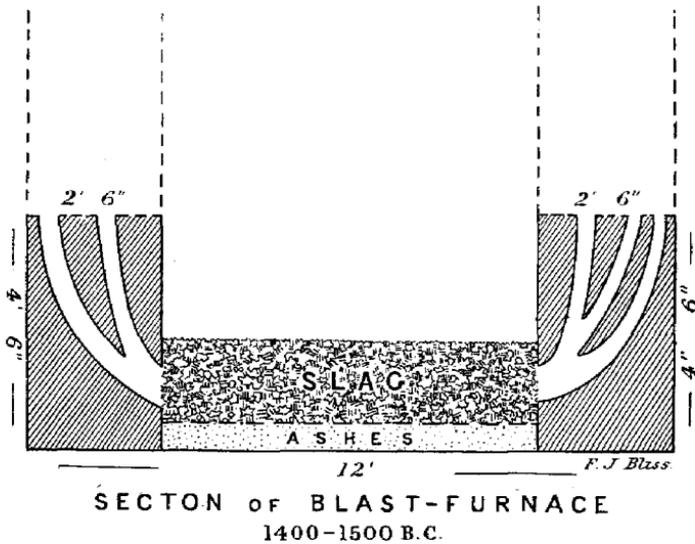
apparent that they had no outlet to the outside. The holes were lined with a grayish-green deposit, and under this the brick was burned red for an inch under the surface. The floor of the chamber was of mud-brick. On this was a bed of ashes, and on the ashes a lot of broken stuff, burned brick on one side, and a coloured glaze on the other.

This accumulation of ashes and stuff was 2 feet deep. The rest of the chamber was filled with fallen earth. About 1 foot from the floor there



were openings into the walls. On destroying the walls we found that these openings were outlets of the above-mentioned passages. We followed three such passages, and found that each passage ramified into two or three branches which led upwards. When we first observed these holes from the top, my foreman, Yusif, declared that we were to expect this intricate mechanism of connecting passages. I was very sceptical, for his theory would involve the idea that the builders had

arranged these complicated passages during the course of construction, a most delicate and difficult work, involving an accuracy hardly to be expected in this rude period, but the destruction of the building proved his theory correct. As I have said, we actually followed the passages from the inner chamber up through the walls to the outlets above. On the south side there seemed to have been an opening into the inner chamber from without, but so much ruined that I could only guess that it was 2 or 3 feet wide and a foot or two high. Directly outside, and on a lower level, were signs of a pit. These are the facts regarding this interesting structure. At first I took it for a place for baking pottery, but the development of its excavation, and a visit to the pottery-ovens of Gaza, showed



this to be impossible. In my last report I referred to it as a place for treating alkali plants. However, I kept specimens of the stuff taken from the chamber, and asked Dr. Adams, our Professor of Chemistry at the College here in Beirut, to analyse it. He at once pronounced it slag, and the structure a smelting furnace. To my surprise, analysis of four bits of the slag proved the presence of iron and silicon, and no trace of copper. I also handed to Professor Adams for analysis a piece off a small lump of ore which had turned up in this general period. This turns out to be iron-pyrites. It helps to account for the smelting furnace, and the smelting furnace accounts for it, as we would wonder why a lump of iron ore should have been brought to a place if the inhabitants did not engage in smelting iron.

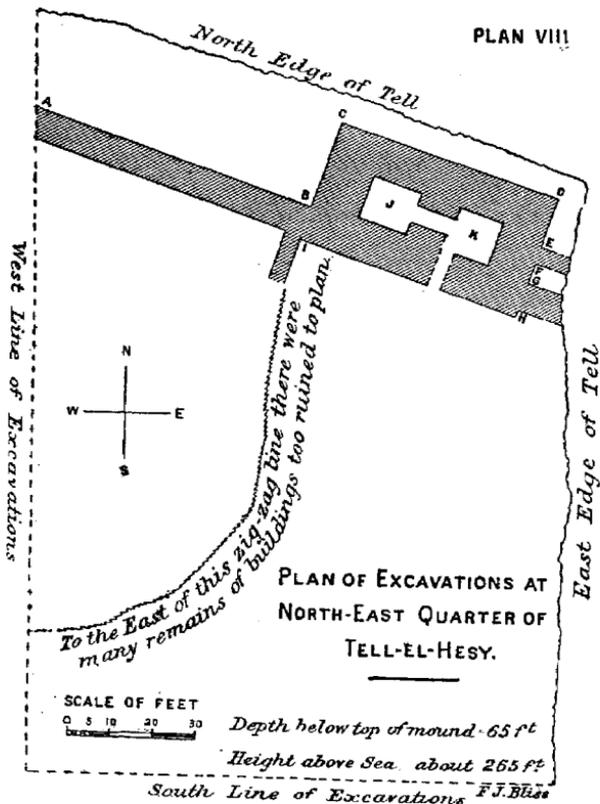
Now comes in an apparent difficulty. Whereas I had found iron

implements in plenty down to the level to be assigned no earlier than to the tenth century B.C., not far from the earliest known date for iron tools in Egypt, from that level downwards to the level under consideration, which is no later than the fifteenth century, no iron tools turned up, these having given place to bronze. In his "Inorganic Chemistry," Professor Remsen, of Baltimore, says, "The suggestion has been made that as it is less difficult to extract iron from its ores than to make bronze, possibly iron was used as early as bronze, if not earlier; but that owing to the fact that iron easily rusts, implements of this metal have disappeared, while those made of bronze remain."

Now, many of the iron weapons and tools I found were so far destroyed by rust that they went to pieces in my hand, though I regret to say that I did not notice whether the objects found down through the various levels were more and more oxidized until they disappeared. However, account for the non-appearance of the iron implements as we may, the fact remains that we have at a level no later than 1400 B.C. a furnace containing iron-slag. The structure presents the usual features of a simple blast-furnace, with one important addition. We have the chamber probably 15 feet high, which may have had a conical shape above the point to which the walls were ruined. We have the slag which had hardened upon the side of the furnace, broken off and taking with it bits of the mud-brick wall, baked hard. We have an opening to the outside, and a pit for collecting the metal. We would naturally suppose that the blast of air was forced through this opening, had we not to account for the strange passages leading from the lower part of the chamber up through the walls. These were of course intended either to conduct upwards what was in the furnace, or to bring something down into the furnace. The first case would be covered by supposing that the flames and hot air were meant to fly up the passages to keep the walls heated and to react on the chamber, but a fire hot enough to influence the walls by the hot air passing through these holes would be hot enough to heat the chamber without any such heating of the walls. The other case would be covered by supposing that these passages opened at the top of the building into some covered place, a chimney being left in its centre for the escape of gases from the chamber below, with a single opening through which a blast of cold air could be forced from outside down through the passages, become heated as it descended, and enter the chamber at the level where tuyeres are usually found as a stream of hot air. I am indebted to Professor West for this suggestion. At first the greenish deposit on the walls of these holes might seem to be an objection; but it is quite reasonable to suppose that the man working the bellows above might stop sometimes to rest, when the flames and gases would rush up, resulting in this baking and coating of the lining. This constant inrush of cold air from above, inside the walls, might help to explain why their interior was not baked hard, except at their face inside the chamber. If this theory be correct (and I hope it will be discussed by those who are authorities in the matter, for these suggestions are, of course, offered only tentatively), we

find 1400 years before Christ the use of the hot air-blast instead of cold air, which is called a modern improvement in iron manufacture due to Neilson, and patented in 1828 !

When I next visit the Tell I shall bring away specimens of ashes from the great bed, and analysis will tell us whether it was the result of alkali-burning or of smelting.

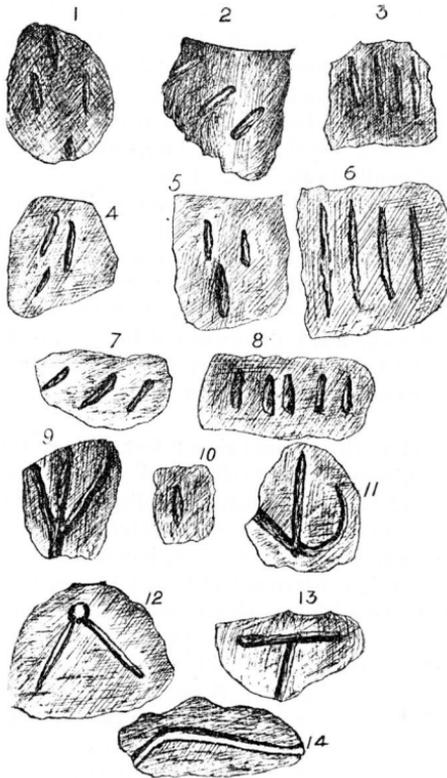


We now come to the two earliest Amorite towns defended by the great walls which Prof. Petrie describes. Like him, I recognized three re-buildings above the original wall, but otherwise our long slow work of laying bare the wall inside and out, brought to light some facts which necessarily could not have been gathered by his rapid reconnaissance before the Tell was removed. On Plan VIII may be seen my sketch of the place. When Petrie was working, 60 feet of Tell were imposed on the town figured on this plan, but the wall from D to H being near the edge of the Tell was

easily uncovered and correctly measured by him at 28 feet. At D he made a trench 50 feet to the west. Had he gone 6 feet further he would have found the great corner C. The face of the wall, D-H, as he found it, was much worn away and might easily have been taken for the breadth of a wall broken off at this point, but at D we went down 4 feet deeper than the marks of his digging and found a perfect corner resting on the original sand, and a perfect face going south along the line D-H, also deeper than his digging. The base of this wall rose as it went south. This face had been preserved by a strengthening wall on the outside, consisting of rough stones in a parallel line about 3 feet away, with the intervening space filled in with pebbles. This ran under the walls E F and G H, which were much ruined down, and which Petrie may have taken for part of D-H. It was these walls (which may have been one having a small room at this point) that carried the fortress on to the east, whereas Petrie, who took D-H for broken breadth and not length, supposed a great wall, 28 feet in thickness, was continued originally to the east. It was very interesting unearthing this great tower, I C D H. First we came upon the room K, which had been very much burned in three or more periods, clearing it out to a depth of 14 feet. Being on the look out for the wall 28 feet thick, I was at first puzzled to know where it was to come in, as this room was so near the edge, when one day it flashed upon me that this chamber might be *in the middle* of that wall, which it turned out to be. So instead of a wall 28 feet thick we have a great corner fortification or tower, 56 feet by 28 feet, with rooms not much more than 10 feet square, enclosed by walls 9 or 10 feet thick.

Between D and C the ground rises 8 feet, but at C the builders had dug down 8 feet into the original soil, thus laying the foundations at C at a level with those at D. In the hope of finding a foundation deposit we dug down and undermined this corner. Here we were puzzled to find some black rubbish to the depth of a foot, but it can be accounted for by supposing that the original trench had been left open before the wall had been built, and the rubbish had either fallen in or had been thrown in. We searched the corner in vain, as also the corner C. The Amorites were determined to leave no traces. Outside of C D were a few rough rooms of the same period. Outside of A B was a thick wall, from the pottery evidently belonging to a later period, built on the ground which had been left untouched in this earlier period. It was probably this wall that Petrie found in his cutting when he searched for a western continuation of D C. The lowest 2 feet of A B near the corner B was built somewhat slanting, so that each course of brick was thicker than the one above it as in a pyramid face. To the east of the zigzag line on Plan VIII were ruins of two towns one above the other contemporaneous with the great tower, but they were so incomplete that I decided that nothing could be gained by measuring and planning them. To the west of the zigzag line the space had evidently been unoccupied during the first two centuries of the Tell, neither did it seem to have been used as a rubbish heap, for the Amorite ware was absent. The original hill was full of irregularities of

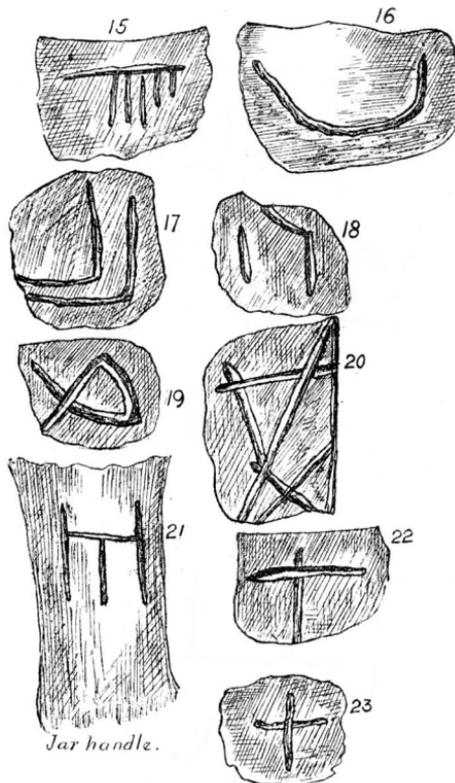
surface, sloping this way and that, and it was difficult to forecast the time it would take to complete the investigation. The large burned room containing the bronze weapons, which we had reached at this same level the year before in another part of the Tell, had led me to hope for valuable finds in my large excavation, so the utter barrenness of these towns was a great disappointment. As the season advanced and nothing was found, the storms being upon us, I decided on a principle of investigation which should be thorough and yet save unnecessary labour in clearing out hope-



less places. We examined all the rooms of the lowest town to the level of their original flooring, with the exception of two or three which bore undoubted marks of having been pillaged in early times, as they contained a mixture of broken-up strata of burning brick and rubbish, differing from the rubbish in which the tablet was found, which was brick, burning and rubbish lying fallen just as it had been ruined, and not broken up by artificial process.

On Monday, December 12th, the field of excavations presented a most irregular appearance, great walls standing out, pits here—elevations

there—piles of earth in every direction ; but on Friday noon, December 16th, when the Bedawy Hussein, who owned the land and was anxious to begin his ploughing, came to inspect the place, he found a large sloping field so neatly levelled that he could not say a word in complaint, but thanked me for a present of a napoleon. In fact we had greatly enlarged his field, for whereas to the north the earth thrown down had encroached on his field below, so that the gain above was but slight, yet we had made ground for him at the east where we had stolen from the

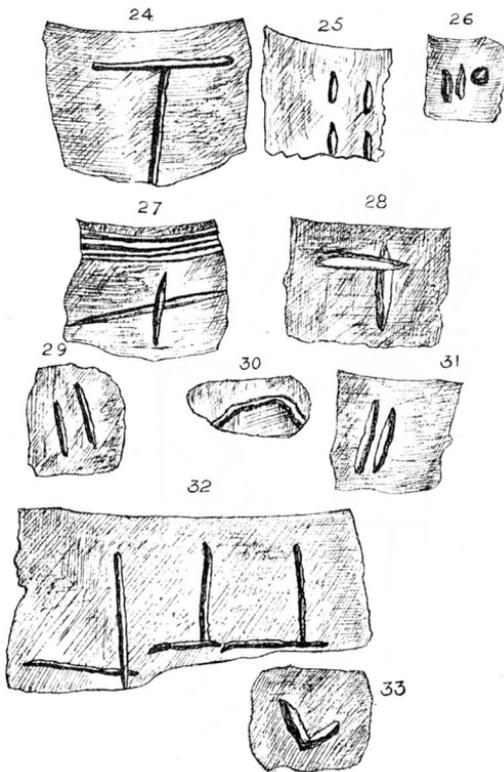


river-bed below a section over 150 feet long and 20 feet broad. Another gain of 20 feet arose, of course, from the broadening of the hill as we descended.

One of the reasons for the great expense of the work at Tell el Hesy has been the necessity of leaving the ground fit for ploughing. At first the height above the river and the field was so great that our earth did not trouble us, but as the slope of earth we had thrown down thickened in breadth, and lost in height, the difficulty greatly increased, until during the last season we had to re-handle the top layers of our slope

several times. But I feel sure that this was a cheaper way than buying up the land. For we arranged matters quietly and directly with the Bedawy, buying out his crops, whereas the purchase of the land would have involved the machinery of title-deeds, fees to appraisers, fees to officials, delay, no end of anxiety, and finally an exorbitant price.

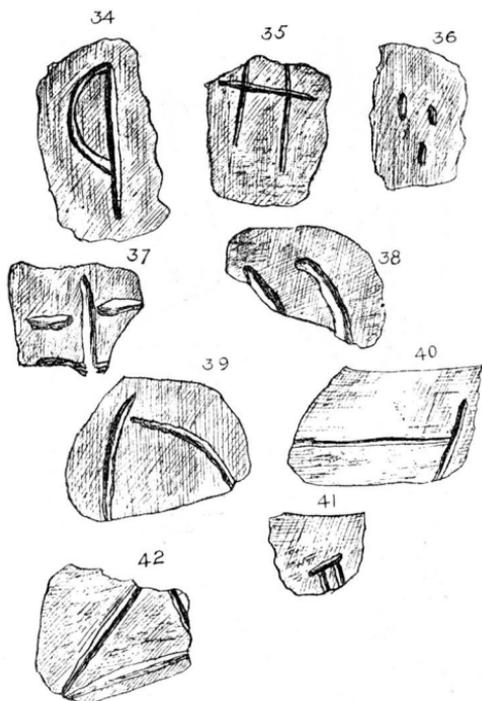
Another singular reappearance was seen in the bone objects shaped like pointed paper cutters, probably for use in separating the strands in weaving, which occurred eight centuries later. The incised pottery



fragments, Nos. 1-52, belong to these earliest Amorite periods, 1600-1700 B.C.; 21 may be somewhat later, 48 is the earliest known as it was found under the corner C. The majority are mere conventional marks, but I hope that 11, 13, 15, 17, 18, 19, 21, 22, 24, 28, 32, 34, 35, 41, 44, 49, and 51 may be carefully examined with reference to the possibility of their containing suggestions for the beginnings of Phœnician writing. The cuts 54-58 all belong to this period, 54 may be a mace, but is only $1\frac{1}{2}$ inches high; 55 and 57 are tiny jars; 56 is of bronze, much decayed, but plainly a charm, as it was to hang by a ring in the head of the figure.

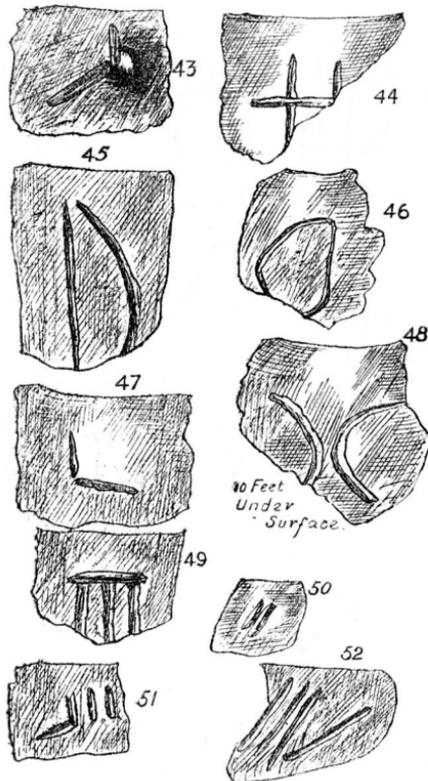
The present appearance of the head is that of a monkey, but it is too decayed to make recognition complete. I send a photograph of Amorite pottery which shows the position of the ledge-handles and spout. 58 is an interesting flint weapon. We found numberless flints, and my former observation was confirmed that the long, thin, well-polished flints belong to the earliest periods.

A few words as to our camp fortunes may come in here. We were actually on the ground September 24th. The time was opportune, for the middle of September was terribly hot, but after the end of the month we did not suffer from the heat, and had we begun later our twelve weeks



of work would have extended into the winter, when camping out in stormy Syria is an anxious experience. It will be remembered that the autumn of 1891 was most unhealthy in Southern Palestine, and it was with a good deal of apprehension that we returned this last season. As a precaution we encamped on rising ground two miles to the north-east of the Tell, which is the centre of the malaria, as the water lies there stagnant. As it was, we were for the first month nearer the Tell than any of the Arabs. Fortunately the season was a very healthy one both among the Arabs and Fellahin, and our own little camp kept in capital condition. The first month passed pleasantly and quietly. I was quite

alone with my servants and workmen as the Effendi had not yet come, but the ride to and from the Tell twice daily made a change in the routine of life. After the first rains an Arab tribe of some thirty tents moved into the depression just back of our camp. At first I was somewhat dismayed at the complications suggested by this close proximity, but after a day or two of trial, I was delighted to find that our new neighbours were a social addition. For almost two months we lived side by side in great friendliness. I knew that I should get on with the Sheikh, but I feared a quarrel among "the herdsmen of Abraham and the herdsmen of Lot," which, however, never took place. Sheikh Selman



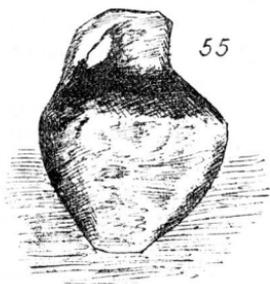
is a man under five-and-twenty, with the long Arab face, and of a gentle, almost melancholy address. He has the instincts of a gentleman, and was always sensitive lest he be trespassing on my time. One had to be rather careful with him, as his feelings were delicate and his pride immense. His duties as Sheikh seemed to be to preside in the "guest-house," which was a part of his large tent, and to act as judge in disputes, for a fee. Many a restful half-hour I spent in the circle about the evening fire

in the guest-room. About 20 men and lads sat or reclined about the fire, which was fed with twigs and thorns by the old man of the camp. Now it died away leaving the tent dim, now it would leap up throwing a rich, red light on the strong, swarthy faces. From outside came the bleating of sheep and the low roar of the hand-mill where the women were preparing supper. At times the conversation was lively, but these Arabs

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are not afraid of silence, and it was agreeable to sit quiet if one did not feel like talking.

I was present at one of the judicial processes, and it was interesting to notice the dignity investing the simple affair. No one changed his position as the guest-room was changed to a court. The litigants handed their weapons over to Selman as a pledge for his fee, and then each party had his say, sitting and smoking quite informally. The defendant was

accused of having torn his wife's head-dress off in a rage, and the accuser was her relative, to whom she had fled after this disgrace. Selman found for the lady, and I went bail for the defendant to the extent of half-a-crown, which he was to pay to his wife next day when the reconciliation was to take place. The custom obtains, when fees or damages are to be paid, to name a large sum, say 100 piastres. This is agreed upon; but at the next camp-fire one man will turn to the judge or to the party claiming damages, and say, "For my sake remit 10 piastres," and the next, "For my sake remit 15 piastres," and so on, till the sum is reduced to reasonable limits.

The heavy rains came very early, so that the ploughing began by November 7th. The year before it did not begin till a month later, and we finished our work without having to raise wages; but this year we had to advance about 30 per cent. However, we got about 30 per cent. more work out of each man, because the women do not plough; and such quantities flocked in to take advantage of the rise in wages, that the men had to dig up earth much faster to keep up with the increased basketers.

My brother made me a visit, and one night I invited some picked workmen to dinner, that we might have a Philistine dance. The amusing thing was that when our Arab neighbours heard the sound of mirth, they rushed up and organised a rival dance far wilder and more effective than the performance of the Fellahin, who dropped off one by one, and finally confessed their inferiority by appearing as spectators of their rivals.

I must mention one incident, to show that we certainly are not afraid of the Arabs.

Harb, the big Sheikh, has been hinting for two years that he wants a present, "a cloak, a silk scarf, and a pair of boots" being his modest demand. I have always put him off, for the buksheesh leak-hole is one that must be sharply looked after. One day in November two lads connected with his family were loafing about the Tell, staring at the girls, causing the workpeople annoyance, and during the noon recess they wantonly shot a dog belonging to a stout digger. Down rushed a hundred angry people from the Tell, and down rushed Yusif after them, and it was entirely owing to his authority that a serious row was averted. On hearing of it, Ibrahim Effendi and I sent for Harb, and represented to him that as he was our friend we would not take the matter to Gaza, but that he must make the man pay a fine to the owner of the dog, and after a day or two we actually did extract a dollar from him, though I never saw anything come so hard as his purse from his pocket, except the money from his purse, and then he had carefully avoided taking out the agreed-upon dollar, but produced a half-napoleon and asked for change, which I cheerfully and promptly furnished, much to his chagrined surprise. The subject of the cloak, the silk scarf, and the pair of boots never came up again, but the story of how the Khowaja got a dollar out of Sheikh Harb took its place in the local folk-lore.

We have been very fortunate during the past two years in finding the Arabs so quiet. The safety of the country owes much to the honest administration of Ibrahim Pasha, the Governor of Jerusalem. In all that concerns our work his Excellency has been kind and helpful. I hope that in the interests of honest government he may remain long in Jerusalem. His worst enemy cannot accuse him of taking a bribe, and he does his best to secure honesty among his officials.

LETTERS FROM HERR BAURATH SCHICK.

I.—REFLECTIONS ON THE SITE OF CALVARY.

1.

In writing a paper on my views as to the true site of Calvary, I wish to say first that this subject has been exhaustively treated by more competent persons than myself, and that all I can do is to express my own humble and poor opinions respecting it; and, secondly, that I have never considered this matter of such great importance, as if our salvation depended on it, but am rather convinced that the Lord has so ruled that there should always be some uncertainty respecting it. As it has been in the past, so it will most likely be in the future.

Yet notwithstanding this, it is still for the Christian and the scholar an object of interest to inquire where the most important event for mankind took place, and I have therefore studied the question with some diligence, and am sorry that the result of so many years' thought and study are not more satisfactory. I will now give a review of the whole, as it has passed through my thoughts, and mind, and life.

2.

When in the autumn of 1846 I and my companion, Mr. Palmer, arrived at Jerusalem, we found there the English missionaries, and besides the Prussian Consul, Dr. Schulz, only one German family and one single young man, a carpenter from Bavaria, who had been a ready several years resident in Jerusalem, and knew the Arabic language. He was a great help to us, showing us, amongst other things, the Church of the Holy Sepulchre and "Calvary." I had expected to see Jerusalem standing on a mountain, and was surprised to find that, after crossing the highest ridge, the road *descended* to the gate, and that inside the city the streets still descended to the house of our host, the said carpenter, which was situated in the Wady. I was led to "Calvary," which, instead of being outside, seemed to me to be nearly in the middle of the town, and not on a hill, but on the side of a long ridge. My thoughts were: This cannot be the real