

## THE WELLCOME--MARSTON EXCAVATIONS AT LACHISH, PALESTINE\*

By OLGA TUFNELL

**T**HE broad purpose of archæology is to increase our view of history. The field archæologist works for the historian; together they try to extend our line of vision, to indicate fresh points of view and fields of inquiry, and to sketch in the background and elaborate the detail of the known historic scene.

We owe our knowledge of Egyptian and Mesopotamian history almost entirely to recent archæology, but the history of Palestine has been preserved for nearly four thousand years, and is a unique means of control for archæological data, which can be checked against Biblical tradition.

The geographical position of Palestine makes it a land bridge connecting Asia and Africa. Many people left traces of their passage and assimilated something of the countries they passed through. Experience has shown that, if we are to assess cultural connexion or influence, style of decoration is more reliable than form or technique. Shape and method can be re-invented, but style is an aesthetic expression which in its less primitive stages shows marked individual characteristics. Thus the pot-*sher*d is sometimes more important than the palace, but all material remains add something to the perspective of the past.

With these thoughts in view, it was the intention of the expedition which became the Wellcome--Marston Archæological Research Expedition to the Near East to tap the lines of communication across the land bridge at strategic points, and to follow them in whatever direction they might lead.

Sir Henry Wellcome with Sir Charles Marston, Sir Robert Mond and Mr. H. D. Colt first considered the choice of a site in 1932, and the possibilities were discussed with Mr. J. L. Starkey, who became director of the Expedition, which set out in the autumn of that year. The choice of a site as a control point is influenced by practical considerations, water supply, accessibility, expense, quite as much as by geographical position and historic importance. Among the sites considered, Tell ed Duweir seemed to fulfil the requirements, though the soil was much encumbered by heavy limestone blocks, and the area of eighteen acres obviously required many years of systematic work. The promoters of the Expedition did not hesitate to undertake the task, trusting in Mr. Starkey's great abilities.

It is immaterial whether or not Tell ed Duweir can be definitely identified with Lachish. Its central position in the Shephelah, on the main Gaza--Hebron road, between Gaza and Jerusalem, shows that it must have been an administrative town of importance throughout its long history from the Early Bronze Age—say about 3000 B.C.—to the Persian conquest about 400 B.C. The lack of Greek and Roman remains facilitates excavation and was apparently due to a reorganization of the road system when the point of intersection of various routes was shifted to Beit Jibrin.

The Early Bronze Age appears to have been the

most flourishing era at the site chosen. The extension of a limestone ridge, surrounded on three sides by valleys, which later became a 'Tell' or mound through the accumulation of debris, was already occupied. The circle of adjoining hills and the lower slopes of the mound were thickly pitted by caves, artificially enlarged, where a troglodyte population lived and traded outside any line of defence which may have existed on the crest of the ridge itself. The extent of the area covered by these dwellings is approximately 200 acres; so vast a centre of early life is unusual in Palestine, and the contents of these caves are easily exposed, in contrast to the stratified levels on the mound, which are below 45 ft. of town deposit. In order to obtain a connected view of events, as illustrated by the sherds, two sections were examined. The lower 10 ft. at the north-east corner probably date from the fourth millennium, and could reveal much that is new and foreign to local culture.

Some hundred and fifty pottery forms have been drawn and recorded from the cave dwellings, and they should add their quota to the steadily increasing knowledge of the Early Bronze Age, in which four distinct phases can now be recognized.

In common with observations from other sites, we note a tremendous cleavage in cultural affinity at the beginning of the Middle Bronze Age at Tell ed Duweir. The people dwelt in houses and built walls around them; the caves were often used as burial places. There is a total change in pottery technique, and a marked increase in the use of copper, which had already made an appearance in the transitional stage—only represented at Tell ed Duweir by a series of poorly furnished tombs. Scarabs were added to the equipment of the dead, and among the daggers one was found to be inscribed. Apart from many incised marks on Early Bronze Age pots, this is the earliest inscription yet found at Duweir, and it is close to the Sinaitic script associated with the origin of the alphabet.

For the first time, a system of defence became necessary, either against the dissatisfied remnants of the previous population, or against further newcomers of the invaders' kin. So far as we know, the earliest method of defence at Tell ed Duweir (though excavation may reveal an earlier one) consisted of a fosse some 8 m. broad, cut in the limestone, while the material taken from it was piled against the natural scarp of the mound to form a slope or glacis. It has been examined at the north-west corner of the mound, where the slope was cut into by the Iron Age city wall. But it was a fortunate position, for after clearance of the packing, a small oval grave was discovered, cut into the native rock. The body was immature, and the group of pots and bowls were all distinctive types. The position of the grave, and its relationship to the layers of thrown limestone from the excavation of the fosse, leave no shadow of doubt that it preceded this engineering work by some years.

Since Sir Flinders Petrie's excavations at Tell el Yehudiyeh, a small fort to the east of the Nile Delta, where he first discovered fosse and glacis fortifications, it has been assumed that the people who built them were also responsible for a particular kind of black pricked ware and 'button-base' juglets found at the site. The people known as 'Hyksos' or 'shepherd kings' set up a foreign dynasty in Egypt lasting about two hundred years, towards the end of the Middle Bronze Age. On comparing the evidence from Tell

\* Substance of a Royal Institution discourse delivered on February 18.

Fara, south of Gaza, it is significant that in the graves of the period no button-base flasks were found, either of the red burnished or black pricked ware, though the typical fosse and glacis defences existed.

As Mr. Starkey pointed out in 1933, there is some further evidence provided by a decorated pot, found with a mass of other pottery on bedrock in the fosse. It is therefore undoubtedly later than the oval grave and the fortification. The decoration compares with similar motives, notably the bird and fish, from other sites in south Palestine and in Syria of the same period, about 1600 B.C., and the style of drawing in both areas is similar.

Prof. Speiser, in his account of excavations at Tell Billa on the Orontes, has directed attention to the duplication of the whole repertoire of decorative motives found at this period in Palestine in level 4 of his site. In addition, the cuneiform correspondence from Tell el Amarna, and Ta'annek in Palestine, reveals the presence of governors and officials with names of non-Semitic origin, belonging to the dialect used by this Hurrian people from north-east Syria. Prof. Speiser suggests that the Hurrians as represented at Tell Billa (3) were conspicuous among the later 'Hyksos' groups. They were possibly the dominating class in Palestine before the Hebrew invasion, and if so, it would account for the loyalty of some of Egypt's local governors, during the troubled times which are so dramatically described in the Tell el Amarna letters.

It seems that we are gradually acquiring the facts in south Palestine which will enable us to differentiate between the influence of the so-called 'Hyksos' people and that of the non-Semitic Hurrians, who figure so largely in the ethnic movements north of Palestine in the second millennium.

The relationship between the Yehudiyeh pricked ware, the fosse and glacis, and the three structures of the Fosse Temple (the contents of which were published in a volume of that name in 1940) will assist in this intricate problem. The actual position of the temple on the disused fosse emphasizes the intrusive nature of the cult, and we have yet to discover the earlier centre of worship, which presumably occupied a prominent position on the mound.

A point which links the Fosse Temple cult to that of the Hebrews in the following century is that the sacrificial bones found in the structures were almost exclusively those of the right foreleg; sheep (or goat), ox, and two wild beasts, gazelle or ibex, were represented. In the Mosaic peace-offering the right shoulder was offered before the altar and retained by the priest, and this ritual was also observed by the Babylonians.

Of objects with foreign connexions from the Temple deposits, I should mention the 'lion hunt' scarab of Amenhetep III, who reigned between 1411 and 1375 B.C. Duplicates have been found in many provincial centres, and they record that the king killed "lions terrible, 102, by the 10th year of his reign". It was found on the altar of Structure III, but in common with the ivories and glass associated with it, these temple treasures seem to have been preserved since the enlargement of Structure I. Its presence at Duweir marks the point of junction with Egyptian written records and opens their rich annals of imperial expansion.

A Mykenæan cup (1500-1400 B.C., according to Helladic sources) is the first link with that culture,

and it formed part of the altar-group belonging to Structure I. Some twenty-five forms are identical with the wares usually attributed to Cyprus and Syria.

The development of the temple can be traced through two hundred and fifty years of comparative peace and growing prosperity. The earliest structure was founded about 1475, and the third building, greatly enlarged, was destroyed by fire with most of the temple equipment about 1223 B.C., on evidence provided by a cartouche of Rameses II. This destruction also overwhelmed the Bronze Age town; indeed, most of the contemporary cities of Palestine and Syria were involved in a similar catastrophe.

There is nothing to show from Duweir as to the force which effected the destruction. It was only gradually that the life of the city was resumed, and it is likely that foreign trade connexions were not so flourishing as they had been in the late Bronze Age town, when examples of three scripts, Sinaitic, hieroglyphic, with its cursive form hieratic, were in contemporary use, quite apart from cuneiform which also occurs in south Palestine.

From the beginning of the Iron Age other sources of written record become helpful. The Old Testament is full of administrative detail, and it is clear that the officials of the time were occupied in problems of local defence, particularly after Solomon's death about 935 B.C. Rehoboam, his son, fortified fifteen cities in Judah, and Lachish, with its neighbour Azekah, among them.

An inner and outer stone wall still encircles the mound at Tell ed Duweir. Though it is battered and burned, the line can be traced without a break. The upper courses were built of brick, and both brick and stone surfaces were faced with a coat of white lime plaster. Though this system of defence may have been intended as protection against Egypt, there is good reason to attribute the signs of the first attack to the invasion of the Assyrians under Sennacherib about 700 B.C. The commemorative relief in his palace at Nineveh, found by Sir Henry Layard, shows the assembled might of his army before the city of Lakhisha. The method of attack is shown in great detail, and at Tell ed Duweir we see corroborative evidence of some similar event; we find sling shots, fragments of scale armour, a helmet crest and arrowheads in profusion.

A cave had been used about this time as a repository for skulls; they had been thrown in through a hole in the roof and many had rolled down the conical heap to the sides of the chamber. The bodies had been moved to this cave after disintegration, and a few skulls showed signs of burning. The series of seven hundred skulls has been studied by Mr. D. L. Risdon with Dr. G. Morant of the Galton Laboratory. The adults were younger on the average than the usual cemetery population, which gives colour to the supposition that they died in a catastrophe. Mr. Risdon's statistics place the Lachish series in close connexion with the contemporary Egyptians, with two differences.

Sir Arthur Keith, in a valuable article published in the Palestine Exploration Fund Quarterly Statement (January 1940), wrote as follows: "Mr. Risdon notes among the Lachish people two characters which are non-Egyptian, namely narrowness and prominence of the bridge of the nose and curvature of the cheek-bones. From these characters alone I should have suspected that the Lachish people were

racially different from the Egyptians." Sir Arthur referred to the Lachish series as "the first complete account of the racial characters of a people living in Palestine during biblical times".

In the same depository of skulls, three examples were found to be trephined. This operation was common so early as neolithic times in Europe, North Africa and even the two Americas. It is also practised by primitive people to-day. The specimens from Duweir are unique, being the only ones so far discovered in the Near East, and their presence shows once again the many influences which affected the coastal strip. It is not possible to say whether the operation was therapeutic or magical. Two methods occur at Duweir: one was removal of the disk by cross cuts, as seen in two skulls where the sharp edges indicated that the patient died shortly afterwards, and there is a triangular type more akin to the European method of scraping, which gave the patient a better chance of recovery.

The Babylonian campaigns which mark the virtual end of the city are well attested both in their own and Biblical records. The period between 700 and 600 B.C. is represented on the mound by a district of shops and houses protected by a city wall which had been repaired since Sennacherib's attack. The Babylonian commander was aware of the perils of leaving partially destroyed fortifications, and he burned long sections of the wall by heaping great piles of olive trees and brushwood against them. In the charred debris, we still find the calcined olive stones which show that destruction took place in the autumn just before harvest time.

At the gate of the city, in the guard-room of this last period of fortification, while sorting a mass of blackened sherds, Mr. Starkey with Mr. Harding found the now famous "Lachish Letters". They form an invaluable link with the Bible record; for the first time we can study the handwriting of contemporaries of the prophet Jeremiah, written in the beautiful pre-exilic script, which is allied to our own alphabet through the Phœnicians. Dr. H. Torczyner, who undertook the publication of the letters, has noted many Biblical names and directs attention to phrases which have all the flavour of Old Testament language. Letter IV includes the sentence, "if in his turning (on his rounds) he had inspected, he would know, that for the signal stations of Lachish we are watching, according to all the signs which my Lord gives, because we do not see (the signals of) Azekah". These words imply that Lachish and Azekah were still linked in the same system of defence as in King Rehoboam's reign.

The defences of Duweir were finally broken about 600 B.C., but the town enjoyed a short period of revival during the Persian occupation. The Persian residency crowned the site for a few years, and was built on the massive foundations of the earlier Judæan fort.

In presenting the shadowy traces of the many peoples who passed by, it is hoped that in years to come some one will carry forward the work which James Leslie Starkey began.

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## MUSCULAR AND MENTAL RELAXATION IN PEACE AND WAR\*

By DR. E. J. BOOME

**R**ELAXATION means more than just a holiday or a lazy time; it means concentration and not inertia.

The relaxation of muscular exercises, in moderation, re-creates the body and conduces to physical fitness, which is one of the chief bases of mental poise and well-being. But relaxation is much more far-reaching in its effects and more constructive in its processes. Beginning with a muscular loosening, it leads to a gradual re-creating of the individual. This form of self-treatment, apparently very simple, is more complex than is realized by the beginner.

Everyone feels the state of tension in the world to-day and the need for some antidote to counteract it. This tension—always in the world even in time of peace—is greatly aggravated by war conditions. In individuals it is expressed by muscular hypertonicity, in mental worry, fear, anxiety, in emotional repression and nervous strain. These factors sometimes react upon each other and cause a breakdown.

Nervous cases tend to become more frequent in days of fear and anxiety such as we have all been through during the past four years. Some people come back automatically to normal, but others do not. Often the attitude of friends and relations intensifies the feelings of these people. Even medical men sometimes say: "There is nothing wrong with you, it's only your nerves or your imagination". Nowadays, we are more careful because we realize that such an attitude only makes these patients ponder more over their ailments, imaginary or otherwise. This makes matters worse, as they become almost convinced that there is really something wrong with them and turn to patent medicines which claim to cure all their ills.

Annie Payson Call, in her book "Power Through Repose", very wisely said:

"Where is the good of taking medicines to give us new strength, while at the same time we are steadily disobeying the laws from the observance of which alone the strength can come? No medicine can work a man's body, while the man's habits are constantly counteracting it. Where is the use of all the quietening medicines if we only quiet our nerves in order that we may continue to misuse them without their crying out? They will cry out sooner or later."

In order to prevent this, we must first investigate the causes of hypertension.

The body reacts on the mind and vice versa. This happens in cases of real illness, particularly if the patient has never been ill before. He gets anxious about his condition and even becomes angry with himself for being ill. This sets up and increases mental and muscular tension and retards recovery. A cheerful patient, on the contrary, generally recovers more quickly.

Work never killed anybody, but the worry which is added to and mistaken for work has caused many a breakdown. In war-time there is often the element of fear added, which increases the wear and tear of one's daily occupations. Many people waste 50 per

\* Substance of a Chadwick Trust Lecture delivered on October 5 at the Royal Institute of Public Health and Hygiene.