

### Further Exploration of the Palace of Knossos.

ON February 14 last I was able, thanks largely to the generous assistance given through the Cretan Excavation Fund, to resume the work of excavation in the prehistoric Palace of Knossos. It may be said at once that the results of this season's work have, so far, not fallen below the high level of the two preceding years. Great difficulties have, indeed, been encountered, both from the persistent and quite exceptional rainy weather and from the constant necessity of propping up and even of partially reconstituting walls in order to preserve the remains of upper stories which distinguish the recently excavated parts of the Palace from almost all ancient buildings. The conservation of these seemed such a plain matter of duty that neither labor nor expense has been spared to this end; and, thanks to the constant watchfulness of my assistant, Dr. Mackenzie, and the architectural resources of Mr. Fyfe, the difficulties and not inconsiderable dangers of the work have been so far overcome that throughout a whole quarter the upper plan of the building is now almost as clearly marked as that of its ground floor.

Those who have followed the former course of the excavations may remember that their result had been to uncover an Eastern wing, which seems to have been mainly reserved for State and religious functions, business and storage, a great central Court, and beyond it to the east a part of what seemed to be the Royal residential quarter. At the close of last season's work a staircase had come to light here, leading down by a triple flight to a hall with double tiers of colonades, and beyond it a larger columnar hall or *Megaron*. On the upper level north of these ran a corridor beneath which another corresponding passage of lofty dimensions has now been cleared out, originally lit by a large window opening on the light-well of the larger hall. The clearance of this was marked by the discovery of a very extensive deposit of inscribed clay tablets—the largest, indeed, yet discovered—including about 100 perfect documents dealing with Palace accounts. The decimal system is here much in evidence, and

a large proportion of the tablets deal with percentages. With these were several large clay impressions of what must certainly have been a Royal signet ring, exhibiting a goddess and her attendants, of which a counterfeit matrix was found last year in another part of the building—a proof that fraudulent procedure was not unknown even in the household of Minos.

The spacious chamber bordering this corridor, which from the signs cut on its walls I have called the "Hall of the Double Axes," was found to have a double portico at its further end, facing both south and east. In its south wall had been already visible last year a doorway leading to a finely paved passage with a "dog's leg" turn, as if to insure the privacy of some important room beyond. Here has now been uncovered a quite original chamber flanked on two sides by a high stylobate, which also serves as a base for seats, between the original pillars of which light was obtained on the one side from a portico; on the other from an area with a back wall stepping back above. On the west side of the room an opening in balustrade gives access to a small bath-chamber, above the gypsum lining slabs of which a fine painted frieze of spirals and rosettes was still partly clinging to the walls. Remains of a painted terra-cotta bath were found near. Of the wall paintings that originally adorned the room itself and the portico beyond very interesting remains were also found, though in a fallen condition. Quite an aquarium of fish has here come to light very naturalistically rendered, including parts of two large dolphins and many smaller fry, some of them complete. This discovery supplies the counterpart to the fine fresco showing flying fish found by the British school in the prehistoric settlement of Melos—a work which must now be definitely assigned to an artist of the Knossian School. Here, too, as those different tones of blue had to be mainly reserved for the fish themselves, the sea water itself was indicated by azure wreaths and coils of dotted spray on a white ground. The expedient is most artistic, but could anything be less "classical"?

The upper part of an elegant lady in a yellow jacket and light chemise introduces us to a different class of subject. Her flying tresses and outstretched arm suggest violent action and this is still more perceptible in the subject of another fresco fragment showing a more nude female figure in the act of springing from above and seizing the horns of a galloping bull. Remains of a series of scenes exhibiting female toreadors were already found towards the close of last season's dig, and it has now been possible to reconstitute a complete panel of one of these fresco designs. The whole is a *tour de force* of ancient circus shows. A Mycenæan cowboy is seen turning a somersault over the back of a charging bull to whose horns in front clings a girl, in boy's costume, while another girl performing behind, with outstretched hands, seems to wait to catch her as she is tossed over the monster's back. The fallen body of a man beneath another bull brings out the grimmer side of these Minoan sports.

A very interesting feature of the newly discovered hall, which will be specially appreciated by Homeric students, is a private staircase opening to its north wall and leading up by a double flight to its upper rooms. On the west side of the hall opens a passage leading to what must have been the most secluded part of this residential quarter of the palace. Here, again, remains of the upper-floor levels are well preserved, and a stone bench is still in its place against the wall of one of the upper rooms. The innermost of this group of chambers have as yet been incompletely excavated, but the work here has already been productive of some important results. At one point are remains of what appears to have been a wooden staircase, the upper part of which was found literally choked with broken seal impressions from what must certainly have been a secretary's office on the upper floor. One of these impressions, though only a fragment, is of great interest as bearing part of the impress of a late Babylonian cylinder, thus supplying direct proof of correspondence with the East. A very remarkable feature of this quarter of the palace is the elaborate drainage system. The well paved floors are under-

aid by quite a network of stone channels, in places crossing each other at different levels and roomy enough to allow a man to crawl along them. A succession of stone shafts leads down to these from the upper story, in one case apparently connected with a latrine, of which a curious, and in some respects, very modern example also occurs on the ground-floor. In another part of the palace sections of a terra-cotta drain pipe have been found of a most advanced form, provided with stop-ridges.

South of the truly Royal group of chambers above referred to is another quarter, with smaller rooms, perhaps mainly occupied by servants and minor officials. Archives were also kept here, as is shown by the discovery of parts of two hoards of inscribed tablets. One contains lists of persons indicated by the man-sign; the other refers to the armoury, and exhibits, besides the linear characters of the inscriptions, outline figures of swords. In addition to these finds of tablets, the pottery of this and the adjoining region has produced some quite new illustrations of the prehistoric writing of Crete. Besides *graffiti*, a fragment of a Mycenæan vessel shows a painted inscription analogous to those of later Greek vases, while the inside of a cup is filled with three lines of linear inscription written in ink, like those of Egyptian *ostraka*. Near the magazine containing the tablets was another with vases in the earliest palace style, some of them painted with very naturalistic lilies. An adjoining chamber contained a kind of domestic shrine of the highest importance in its bearing on the local cult. On a small dais, beside a tripod of offerings, and with a miniature votive double axe of steatite before her, rose a painted terra-cotta figure of a goddess, pillar shaped below according to the old religious tradition, and with a dove on her head, while in front of her stood a male votary holding out another dove. That a goddess was associated in the palace cult of the double axe further appears from a gem on which a female divinity is seen bearing this symbolic weapon in her hand.

On the eastern slope of the hill the limits of the palace have

extended themselves beyond all anticipation. A good deal of denudation has here taken place, but among the finds are remains of a large architectural fresco with realistic imitation of veined marble, and stone jars more capacious than any yet brought to light. A stone spout jutting out from a neighboring wall and connected by a conduit with an oil-press above, explained at once their contents and their means of filling. Further down and here forming the outer eastern boundary of the palace, are massive lines of supporting walls; at one place five are within another at intervals of only a foot or so, and a bastian with ascending flights of steps flanked by curious water-runnels.

Some excavation has yet to be carried out in the central parts of the eastern quarter, and the boundaries have yet to be delimited towards the northeast; but there is every hope that the main work may now be completed by the end of the present season. The remains already brought to light cover an area of about five acres, and their exploration may be said to have opened to the eyes of history a new world, already ancient when Homer sang, but presenting a civilization in some respects strangely modern. It would seem, indeed, as if the brilliant and unexpected character of the finds was likely to maintain itself to the last. The exploration, now proceeding, of the basement spaces within the upper Eastern Terrace has brought to light, below the level of the later Palace, walls belonging to a still earlier Royal dwelling. Within these were fine painted vases of the older class, the decorative designs and elegant contour of which sufficiently attest the high artistic development attained here in this still more archaic period. In this early stratum was also found a miniature vase of gold and porcelain, the thimble-like receptacle of which may have contained some perfume as precious as attar of roses. Here, too, as if to illustrate the continuity of the local cult, were remains of a miniature pillar shrine of painted terra-cotta with doves perched on its roof. But one of the later Palace basements, at a slightly higher level than this, contained an architectural record of still more universal inter-

est. This is the remains of a mosaic, consisting of small porcelain plaques, which, in its original form, seems to have represented scenes disposed in various zones recalling the subjects of Achilles' shield—the walls and houses of a city, a river, a vine and other trees, warriors with bows, spears, and throwing sticks, besiegers and defenders, and various animals. But the most surprising part of all are the houses of which the city is composed. Fragmentary as are their remains, it has been possible to reconstitute about a couple of score of these. The varying character of the structure—stone, timber, and plastered rubble—is accurately reproduced; and the walls, towers, gateways—a whole street of a Minoan city rises before us much as it originally stood. But what is even more surprising than the fact that the elevations of these prehistoric structures should be thus recovered for us intact from the gulfs of time is the altogether modern character of some of their features. Here are three-storied houses (some of the semi-detached class showing two contiguous doorways) with windows of four panes, or double windows of three panes each, which seem to show that the inmates of the houses had actually some substitute for glass.

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