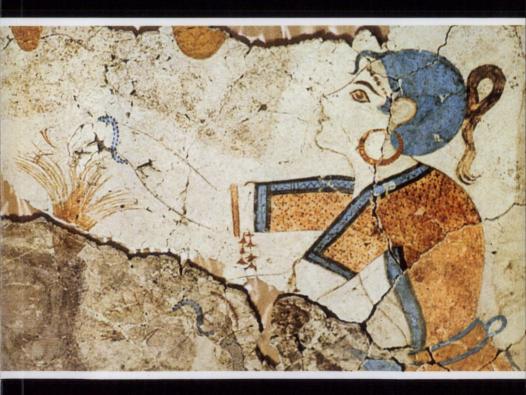
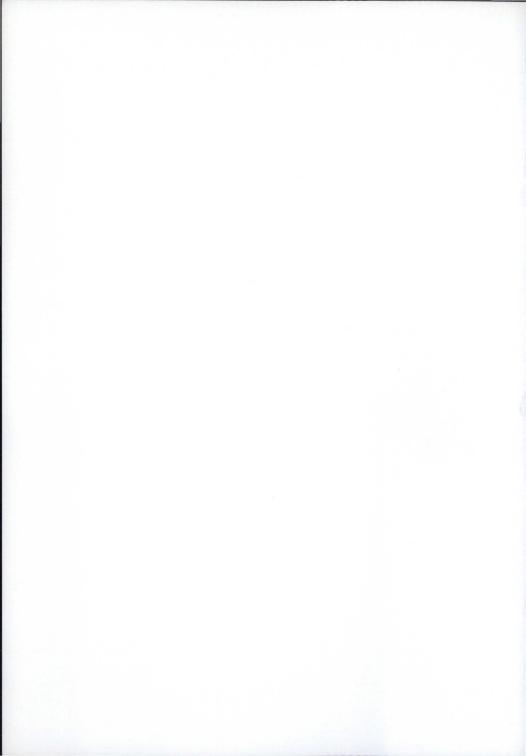
**SPYRIDON MARINATOS** 

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1972-1973 SEASONS



SECOND EDITION ATHENS 1999



# EXCAVATIONS AT THERA VI-VII

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## EXCAVATIONS AT THERA VI

1972 SEASON

#### EXCAVATIONS AT THERA VI

(1972 Season)

The 1972 excavations began with preliminary work about the middle of July. On July 20 we reached GENERALITIES the «catastrophe layer», that is, the uppermost occurrence of loose stones over which the «aspa» (the local name for volcanic ash) is absolutely pure. Under the stones brown earth (from mud-bricks) always occurs, and soon begin pottery sherds and further finds. This time we met the catastrophe layer along Telchines Road in «Millhouse Square» («North Court I», see plan 1), and also in front of the West wall of  $\Delta 16$  and further North toward «Triangle Square». Around the projecting room, which we call πυλών (gate) and which forms the Southern limit of the Triangle, traces of the «troglodytes» were very clear: they had moved aside the stones to the East and West in order to tidy up Telchines Road. They had also made small, crude retaining walls of fallen stones so that the accumulated ruins, especially on the West side of the road, would not fall again. The preliminary work was done under the supervision of Dr. Chr. Doumas. 1

Technical work included construction of a large additional shed for protection of the ruins (colour plate 1), and the expropriation of the fields to the East. It thus became possible to throw the great masses of volcanic ash into the East ravine, which had also been expropriated. At the North end of this ravine we found traces of quarries (pl. 1a) which are old, possibly «Minoan» in date.

From the wells dug for the shed-pillars there is nothing special to be reported, as the finds could be incorporated into the ruins — description to follow. It must be mentioned only that in the shallow ravine immediately to the East of the ruins we opened two deep wells. In the first one (to the North) we found just a corner, of rather poor construction, made of ordinary stones. In the more Southerly well, which we sank almost 10 m. deep, there is no trace of human hand. Therefore our opinion was corroborated that, at least in this part of the excavation, the town lay from South to North along the streambed, with no considerable extension on either side.

The main purpose of the season's targets was twofold: first, to continue investigation in the «House of the Ladies», of which only one room was cleared in 1971, as well as in the «West House»; second. to amplify the excavation area to the East and to the West, where interesting buildings had to be sheltered by sheds before being unearthed. During this last attempt we realized that we had before us three most interesting Esorai (buildings in ashlar masonry). We decided, therefore, to abandon our previous rather desultory numbering system and to number the Xestai according to the sequence of their discovery: the North façade of Sector Δ (formerly Bronou 1 and 1α), discovered at the very beginning of the 1967 excavations, became Xesté 1. The second one, a corner of which was discovered also in 1967 (named Arvanitis 2 and described as «the most monumental wall bitherto discovered») 2 is now numbered Xesté 2. The third one (designated E as belonging to Sector E) 3 is now Xesté 3. The last one was brought to light late in 1972 and it is just included in plan 1 here. It lies close to the South of Xesté 2, and was numbered Xesté 4. We will here describe these buildings, beginning at the North end, leaving until last the West House, which constitutes the main excavation of the 1972 season.

THE HOUSE

The building takes its name from the fine frescoes found in one of its rooms. Its Eastern part was damaged, and the precious frescoes were in fragmented condition. The damage was due to the

torrent and intrusive materials were found there within the aspa layers, among which a follis of Constantin II (fig. 1). It dates 334-5 A.D. Further excavation has shown that the rest of the house is considerable both in size and in preservation (see plan 2). The Eastern side is the more destroyed, but three rooms (2-4 on the plan) are clearly preserved. The Northernmost of these (2) served in its latest phase as vestibule to Room 1, which was the painted shrine of the house.

The Southern side of the building is not yet clear; it may extend very nearly to the West House which lies just South of it. At the center of this side lies an interesting room. It consists of a square compartment with solid walls and no openings (a light well?) and a stone staircase still in position (pl. 1b). The two last rooms excavated, 6 and 7, constitute the West side of the house. In the upper layers of 6 (we are,

of course, at the height of the first storey) a half-finished vase of hard whitish stone was found (pl. 2a-b). The vase (60 cm. high and 40 cm. wide on the upper end) was intended to have two handles, a button-shaped grip and a bridge-spout. The inner side is instructive: in order to hollow the vase out, a central boring was first made. With this boring as center, a circular incision greater in diameter was made and the separated core was broken by hammer blows and removed. But the walls of the vase were still thick, so a part of them was removed by means of semicircular groovings (pl. 2b).

Beam holes in the walls indicated the floor of the storey, but nothing of interest was found in situ. About 2 m. deeper we reached the floor of the basement, made of beaten earth. Some vases were still in position (pl. 3a), which were left on the spot.

Much more interesting was the next room to the North (7). Here the walls of the storey are entirely preserved. It is not known whether over them was the floor to a third storey or, instead, a roof. The latter seems more probable. This room was separated from Room 6 by an elegant wall of worked stones, but it lies collapsed. Here the traces of the upper floor were clearer, and pottery was much more abundant, as if this room belonged to the shrine of the painted Room 2.

Soon after removing the upper layers of white aspa, the first vases, together with stone slabs and other stones, appeared on or very near the floor (pl. 3b). In the left part of the next photo (pl. 4a) we see the West wall of the room with two deep cupboards in it. We see also the



Fig. 1. A follis of Constantin II (334-5 A.D.) from the House of the Ladies.

slabs of the floor in disorder. A few of them were still in situ near the South-East corner of the room (pl. 4b). A big plain ewer was found somewhat sunken but originally belonging to this floor (pl. 5a), which had to be removed in order to continue excavating. We found this vase filled with pure lime (pl. 5b). One would hardly imagine lime being stored in ewers. We shall see later that lime half prepared for stucco was kept in two storage pots in the West House. (In both instances chemical analysis was made by Prof. W. Noll.)

The floor of the room on this storey was once covered with pottery, as we shall see. Owing to the sinking of the center of the upper floor, the pottery was preserved in situ only along the walls, especially in the corners. Pl. 6a shows the North-West corner with a nest of five rhyta, one nippled ewer, one flower pot, one spouted skyphos, one broad-mouthed vase, and possibly still more underneath. The corner of the room was framed by a series of erected or half-erected stone slabs. Similarly, the North-East corner was separated from the rest of the room, so that a kind of «kasella», or coffer, was formed. Inside it, five rhyta, a flower pot, and some handleless little bowls are distinguishable. The same type of small bowls were found in a heap on the floor at the middle of the South wall.

Such an abundance of rhyta and handleless bowls is a strong indication that Room 7 was accessory to painted Room 2 (the shrine). As already noted, the West wall bears two cupboards; the more Northerly of them was full of similar holy vases. We cleared it out to more than 75 cm. in depth without reaching the end. We uncovered within it four rhyta, five flower pots and similar other vessels, all left in situ. Pl. 6b shows this cupboard, with the North-West corner of the room and the slabs framing the nest of vases described above.

Some of the vases are painted, but most interesting were the fragments of a kymbe painted in polychrome fashion and showing ibex-like animals grazing in a crocus field. The vase was so charming that we pushed the excavation deeper and deeper in the hope of finding the rest of it. And indeed, almost two meters deeper all the missing fragments lay scattered about (below, pl. 80 and colour pl. 11). We had by now reached the depth of the basement, and the floor of this room proved to be equally interesting.

Here the floor was not of mere beaten earth; it was covered with nice grey slabs of schist stone. Almost 80 cm. before reaching the slab pavement the tops of heaps of vases started appearing. Beginning again from the North-West corner, we see in pl. 7a a pile of pottery,

while above it the corresponding nest of vases of the storey already described is still distinguishable. Many vases lay within the pure aspa at various levels between the two floors. Some are plainly seen in pl. 7a, while pl. 7b shows a pair of *Dolium Trito* shells, which were common cult objects. The circumstances of these finds show that the floor of the upper storey collapsed under the pressure of the aspa when the room became filled with it.

Although many vases on the basement floor were badly broken and others cracked, on the whole they had remained in position. This means that the heaps along the walls had been placed there purposely by human hands. Some had been stored one inside another; in other instances they had been laid upside down, and many of them were still stoppered. Pebbles, minor vases, disc-shaped sherds and, more rarely, real corks of clay served as lids. Pl. 8a shows a heap of vases along the East wall of the basement. In pl. 8b (North-East corner), in which the slabs of the pavement show, we see vases and also one of the characteristic large jugs meant for trade. There are many typical groups of pottery, most especially along the West wall. Pl. 9 shows vases with their lids still on, and the wide-angle photo in pl. 10a shows practically the entire basement floor, the upper storey, and the cupboards of the upper West wall. One of the bigger vases had what looked like many letter-like graffiti on its surface; later, we stated that this vase had to be mended by using lead clamps, and apparently that is the explanation for the scratchings which looked like letters.

Almost all pots, excepting some which presented nice painting, were left in position. It is rare to unearth superimposed rooms with their furnishings in situ. If removed and transported to storerooms or museums, the ruins would be deprived of their soul. Moreover, much thus remains intact for future further investigation by competent authorities. When we find the specialists needed for investigating organic matter and seeds, much material will await them.

ROOM A2

Proceeding to the South along the Eastern side of the excavation we reach the little Room  $\Delta 2$ , in which the Spring Fresco was found. Additional

work there revealed new elements in its construction. In pl. 10b we see the open «court» (though it may prove to be a roofed room) with a much broken plain pot on its floor. On its upper border we see the East wall of the room of the Spring Fresco ( $\Delta 2$ ). A square window is well preserved. To the left of it is the back wall of a broad cupboard open-

ing within the room. <sup>5</sup> To the right is the door, which remains out of the photo.

It had been hitherto believed that room and court were accessible from the South through a corridor along the Eastern façade of  $\Delta 9$  (with two windows) and (in the middle of the photo) the supposed doorway with a jug still lying in situ and, above it, a fragment of the supposed wall over the lintel of the door. The complete clearing away of the masses of pumice under which this whole area was buried has shown that the supposed door was in fact a broad window. In pl. 11a the window sill appears clearly, and its well preserved traces of wooden framing permitted easy reconstruction of the manner in which it was incorporated with the rest of the above-lying lintel wall (pl. 11b). Thus access to the Spring Fresco room continues to remain a problem, if we remember that its «court» was probably a roofed area.

The window of the Spring Fresco room, almost square, is 0,80 m. wide. The jug seen upon its sill (pl. 12a) shows a peculiar form with three short legs, is painted with spirals, its collar ends in a loop and bears the sign |-|-| incised before burning (pl. 12b). To the right of it a clay jamb painted in fine red separates it from the door, which was 0,70 m. wide and only 1,60 m. high. Women may have entered rather easily, but the men must have had to bow somewhat. Access to this superbly painted room was apparently limited and denied to the general public.

To the left (South) of the window, a cupboard 0,65 m. wide was discovered, opening to the interior of the room. It was filled with pure aspa. A little vase was found on the sill, and above it (apparently the cupboard had shelves) a fine imported ewer. Pl. 12c shows this vase as it was found embedded in the aspa. We see the same vase in pl. 12d. It is of Minoan workmanship and painted with heart-shaped spiral combinations on a dotted field, with the use of white paint for details of the decoration.

The room itself was originally larger, and apparently supplied with a polythyron on the East wall. After the catastrophe of 1550 it was rebuilt, but the Northernmost part of it was separated from the rest to form a long, narrow corridor-like room (see plan 1). The dividing wall was extremely poor, made of upright wooden posts with straw and clay. This poor construction was covered by the masterpiece which is the North wall of the Spring Fresco. After we had removed the fresco, some pieces of the remaining underlying plaster of the wall fell during the winter of 1971. We saw then that the wall was

exceedingly thin and that behind it lay accumulated a lot of pottery, loom weights, etc. (pl. 13a). Thus we realized that behind this wall was the treasury of the Fresco of the Lilies shrine. Furthermore, we understood that the tunnel-like niche at the North-West corner of the Lilies Room 6 communicated with the treasury. Finally we can now explain why the door of the Lilies Room stands on a polythyron base. All this was the work of the rebuilding which the catastrophe of 1500 B.C. stopped forever.

South of the Lilies Room lies  $\Delta 9$ , in which were found over 300 vases. An extension of it toward the South is room  $\Delta 9\alpha$ . The floor of its storey consists of stone slabs which had sunk about half way to the basement floor, but had remained in relative position (pl. 13b). In this area the restoration of the floor at this level will not be impossible. We postponed, therefore, any further excavation, although a considerable mass of pottery remains hidden here.

The entire area around the Spring Fresco shrine

— with its rich rooms, its denticulated façade toward the East, and its splendid finds — is pro-

mising. Here belongs also the building we now call Xesté 2. Only the North-West corner of it was hitherto known. Its preliminary excavation in 1972 with the purpose of extending our sheds above it gave us the following results. The North-West corner, previously unearthed in 1967, is seen on the upper middle side of pl. 14a. It was later recognized that we had to deal with an upper storey and that a basement with large openings existed beneath it. In pl. 14a this basement is clear, while to the right we have the Southern extremity of the indented East façade of Sector  $\Delta$ , better seen in pl. 14b.

Beyond this point to the East, the Xesté was covered by a thick layer of pebbles, which appears also at some other places in the excavation and is a considerable hindrance to the excavators. Dr. Th. Spyropoulos, who had this sector under his supervision, was engaged for weeks in the effort to remove the pebbles and sand concrete. Pl. 15c shows the uppermost part of the North wall freed from the concrete, which is still visible in the background. The freed wall belongs to the third storey. A stone with a ring of circular cavities («kernos») can be seen in the foreground upon the wall where it was found. Beyond it one sees the stone geison which separates the third storey from the second storey below it. To the right we see within the aspa a deep circular cavity which may indicate a fallen wooden column.

Facing this wall, to the North extends an open area, possibly a court. Interesting stratigraphical observations were made here in 1971. A retaining wall was observed on the deep-lying artificial floor of the court. <sup>7</sup> This retaining wall has been unearthed in 1972. Pl. 15a shows it from the East. It is of poor construction and served to support the floor of the court against the basement of Xesté 2, which lies deeper to the left. Four steps of irregular stones gave access to the basement from the court. Pl. 15b shows these steps, the rubble wall in question at its Western end, and the beginning of the dentated wall that forms the West side of the supposed court.

The North façade of Xesté 2 is very imposing; we followed it about a dozen meters to the East without meeting a corner. The wall contains recesses, perpendicular divisions indicating wooden frames and horizontal sections through the stone geisa (pl. 16), while at the same time window-openings appear. In pl. 17 is seen a square window of small dimensions. Pl. 18a shows pottery found upon its sill after the first cleaning. In Pl. 16, which presents the excavation in a more advanced stage, the same window can be seen on the upper left, while a much larger window appears in the basement. It should be noted that everywhere the wood of the walls had disappeared; thus, to support the walls, we had to fill with concrete the cavities left by the «evaporated» wooden door jambs and wall frames, the greek name of which was, it seems, docana (δόχανα).

Starting always from the North-West corner, we followed the West wall of the Xesté about 20 m. to the South without finding its end. Inside the building we sank four wells for our pillars. Well 36 revealed, at a depth of 6 to 7 m., great half-worked stones, a kind of slab-covered floor, and fragments of slabs of fine white stone, possibly marble. A worked stone, perhaps the base of a double axe, was also found.

Equally interesting was Well 39, which disclosed an abundantly fitted store room. Pl. 18b shows it as the vases emerged from under the pure pumice. Part of this thick layer is visible in the upper right corner of the picture as well as the beginning layer of aspa above the pumice. Pl. 19 shows details of the stored vases: one typical oil jar with medallions and the rope pattern, and another, erect and broad-mouthed, are seen among the rest. Beside the left part of the broad-mouthed jar we see a half fallen ewer with its mouth still firmly sealed with a clay lid. More will be said later about this vase and its contents. One of the other vases shows clearly an incised letter of the Linear A system.

XESTE 4

During the opening of Well 41, fallen stones appeared which presently proved to be a North-South wall of ashlar masonry; the stones were of

excellent quality, some of them marble-like, and one showed a graffito sign on it. We soon concluded that we were dealing with a façade toward the West. We tried to find the North-West corner of this building, which seemed imposing. The corner was indeed found (pl. 20a). The fallen stones, however, prohibited systematic unearthing. We advanced, therefore, further East, with amazing results. The North wall of the building continued its course to the East (pl. 20b) and was better preserved as we went deeper. The filling was mixed aspa and beneath it began the layer of pure pumice, which seemed to be exceptionally thick here. The photo in pl. 22a (from the East) shows a strong stone geison projecting out. In the Eastern part of the wall (low in the photo) we see only one layer of stones on it, but in the background (which is the North-West corner of the building) more layers have been preserved. As the excavation of a portion of the North façade went deeper (pl. 21) we reached six layers of ashlar; then began a layer of large irregular stones, evidently the foundation. The hight of each layer is about 0.40 m., so that with 2.40 m. total height we reach the usual height of basements and upper storeys. Over the geison crowning the basement wall there are, at the Western end, another three layers of ashlar which belong to the upper storey. There is hardly another building giving so monumental an impression. It is curious that no opening appeared in the unearthed part of this North façade of the Xesté.

The secrets of the interior of this building are still hidden under the ashes. In Well 42 we met at about 4 m. from the surface a jar of late LM I type which, although badly broken and much corroded, was still in its original position (pl. 22b). The well contained fragments of fluted plaster (pl. 22c) possibly from cupboards or from shelves made of reeds or rods covered with plaster. On the inner side of the North-West corner of the building (Well 41) we found fragments of white or yellow plaster. One piece which still adheres to the wall exhibits a horizontal black band.

XESTE 3

Almost opposite Xesté 4 and to the West lies the Southernmost part of our excavation. An ashlar masonry building was discovered there, the fa-

çade of which showed two broad openings formed by three square pillars. Last year we had recognized that the building must extend on-

ward and that the unearthed portion of its façade belonged to the upper storey. It was labeled E, since it belongs to the sector to be named E when excavation reaches this point. Now it is called Xesté 3 according to the series of its discovery, as this numbering seems more practical.

Wells 47 and 48 were sunk within the supposed area of this building in order to protect it under a roof. Here we met with unusually great difficulties, for within the limit of deviation permitted for every pillar of the Dexion system of roofing we opened several wells and everywhere met a complicated catastrophe layer. Abundant traces of frescoes were encountered also: a long «corridor» was painted on both sides, a room was painted, and yet a third place was full of paintings in fragmentary condition. We finally erected our pillars on top of old walls or on fallen stones, without reaching solid rock. Some of the paintings are still in their original positions on the walls, but we realized that, to our regret, the storey in this Xesté has lost the upper parts of its walls, hence the wall paintings will be badly fragmented.

Our general observation has been that several loose fragments of paintings show only bands and spirals, already known in this area from previous excavations. In Thera III (p. 39f., figs. 24-25 and colour pl. B) such fragments are described as «fine style and colour», and the area is characterized as «promising». This observation seems now to be borne out, but, as stated, there is serious damage by the great catastrophe. It may be of interest to geologists that near Well 48 a great «bomb» of granite (diam. 1,10 m.) was found buried at a depth of several meters within the pure aspa and above the pumice layer (pl. 22d). Another general observation from the journal (13-IX-72) concerning pottery also still stands: «The sherds are rather more archaic, however, from MK and LM IA in date, with strong analogy of polychrome sherds (apparently MK) and of skyphoi with inward turned rims, one-handled, and bearing metope-like decorations around the rim...».

Xesté 3 was not delineated any further than the area to be covered under a shed, hence it does not appear on plan 1, except for the façade. It was also stated that this façade extends towards the North.

At this point it is certain that behind the façade of Xesté 3 there are many rooms. Toward the Southern part of the building a kind of corridor appeared, a small part of which was excavated. Both walls of this corridor are painted. The portion unearthed shows in somewhat simplified but no less artistic technique a series of pointed peaks of the mountains of pre-explosion Thera (pl. 23a). Rare little trees hang

or project horizontally from the precipices of the rocky heights (pl. 23b) with a noble frugality which surprises us. One thinks, one sees here the forerunner of a Sesshu, and realizes that the Aegeans were indeed something like «prehistoric Japanese of the Mediterranean».

Well 48 was opened originally within a little room (we suppose) which was literally filled with fallen frescoes. After the fragments had been removed with considerable difficulty we found that on the lower part of the West wall a good portion of the painting still stood in position. It is in a bad state of preservation, but the subject (yellow reeds) is clear (pl. 24b). Some of the tops of the reeds reach the roof (indicated by beam-holes). We were eager, also, to reach the floor. The narrowness of the space available and the great care needed, owing to the ruined walls, made this only partly possible; a large fallen piece of fresco was happily extracted. We saw with satisfaction that our careful labor was rewarded: the fresco pictured a net stretched among the marsh reeds. Birds were attracted, the cords were pulled violently, and a number of birds were captured within the nets. This entire description is lent from analogous Egyptian scenes; enough of our fresco remains to substantiate such a conclusion.

The corner of this room must lie still hidden further South; but of its fallen debris even more interesting frescoes were rescued. The largest fragment is almost 1,50 m. long. In it we see bands of different colours and a deep red field in which Madonna lilies, in a bouquet it seems, are depicted (pl. 24c). A short distance beyond, the White Ladys emerged from the pumice. It is the head and a small portion of the body of a half life sized young lady painted in white, with elaborately dressed hair and jewels. It is not impossible that she was holding the lilies in her hand, and that an altar may have been close by.

A broad area to the East of Xesté 3 seems to be an open court, from which one can walk Northward along Telchines Road (see plan 1). After some 25 m. Telchines Road widens into the first «Millhouse square» (North court on the plan). From this square one could glimpse the Room of the Antelopes and the Boxing Children through its large window. In the opposite direction (Northward) stands the Millhouse. Its West side is seen in pl. 24a, which was taken from the North. The Millhouse projects from the wall of  $\Delta$  16. It is clear here that we have an addition belonging to the period of rebuilding which the town underwent following the catastrophe of ca. 1550. At that point older walls of

the MK houses were not rebuilt. On the contrary, they were leveled in order to construct Millhouse square.

The façade of the Millhouse as now restored (crestoration) means only filling with concrete the once wooden parts of the walls) is shown in our pl. 25a. The same area during its excavation in 1971 is shown in Thera V, pls. 37b, 39 and 40. We have the typical arrangement of  $\theta \circ \rho \alpha$  (door) and  $\pi \alpha \rho \alpha \theta \circ \rho \phi \phi$  (window) known from Millhouse 1 of Sector A. 8 Inside the room everything has been preserved in situ. We mended the medium-sized oil jar and replaced it in its original position (pl. 25b). The five bowls (with the jar, the only pottery found in the mill room), are seen in pl. 26a. There is no doubt that they served as measures, the handleless triangular bowl being suitable for pouring oil or wine. But this question, which easts light on the texts of the tablets, must be taken up elsewhere.

About another twenty meters to the North we reach the second square, which, due to its form, became the «Triangle». Here we will conclude our description of the ruins, since on this square front the highlights of the year's excavations: the «Building of the Anchor», and especially the West House.

Pl. 26b shows the Triangle from the North. To the left we see one of the basement windows of the Polythyron ( $\Delta 1$  on the plan). Beyond an indentation in the wall we reach the area  $\Delta 9$ , which ends in a labyrinth of narrow corridors and stairways. The projecting, irregularly square building which forms the Southern boundary of the Triangle has therefore been named «the Gate». It has two wide entrances, one to the North and one to the South. The opening seen in pl. 26b belongs to  $\Delta 9\gamma$ . The entrances to the Gate are still blocked by pumice and by the catastrophe layer, which appear in the photo. The Gate is so badly ruined that its excavation is not yet possible. In removing the uppermost layers of tephra we found fragments of painted rosettes similar to those from Xesté 3.

Opposite to the Gate and near the scaffolding one sees in our photo the catastrophe layer belonging to a new building, provisionally called the «Building of the Anchor». In pl. 27b, taken from the East, we see a series of thin schist slabs perpendicularly embedded in the aspa. We met with this phenomenon several times. There are reasons to believe that such slate slabs formed a kind of protecting geison (cornice) over windows and doors. In the same photo we see the uppermost

worked stone blocks of the building. While excavating later on, we located the door and the North corner of the building (pl. 27a), to the right of whichseems to be either a corridor or a broad door. To the left of the corner a wide bipartite window appeared, similar to the one we know from storeroom A1. Traces of pottery were found on the sill of the new window (pl. 28a). The whole excavated portion of the building is shown in pl. 28b.

The interior of the new building has not been excavated. It shows many archaic features. A fine jar (in pieces) displays large dolphins and sea rocks. A broken clay trough has been noticed also, but the sherds are otherwise of the «settlement» class, that is, minute fragments from different pots and not comprising entire vases. A tiny sherd with spirals in relief may be imported Kamares ware (two other genuine Kamares sherds were found by Dr. Doumas in  $\Delta 16$  in a hole he had opened in the floor, see pl. 67b and d). To this house may have belonged the vase containing sea urchins which was found among the stones of the catastrophe layer. <sup>10</sup>

In the catastrophe layer, among the stones, we found a peculiar one which may be the first example of an anchor of the Aegean-Minoan period. It is a roughly oval, black trachyte stone, about 60 cm. long. On the upper extremity it bears a hole. In pl. 29, above, one sees the main face, and, below, the opposite face and the side of the stone. It is not improbable that it was an anchor, made especially for irregular sea-bottoms. It weighs 65 kilograms. Stones used as counterweights in cranes (which should be considered as an alternative) had other forms or were not at all worked. Another similar stone and a third greater, both pierced with holes, were found within the area of Sector  $\Delta$ . They will be published elsewhere.

Facing Triangle Square is the façade of the West House, clearly seen in pl. 30. There is no definite indication that this precious house — precious for its finds — was higher than its two existing storeys. The basement has a door, with three windows to the left of it which open low on the wall, almost at the surface of the Square. A fourth window, to the right (East) of the door (pl. 31a), is the usual  $\pi\alpha\rho\alpha\theta\nu\rho i\varsigma$  and lies higher than the others.

The walls of the West House (see provisional plan 3) stand practically erect, but they were mostly in ruined condition. Consequently Mr.

N. Kavoulakos, chief engineer of the Restoration Service, contrived an elaborate system of supporting buttresses which have not disturbed the building's æsthetics. Three of these appear in our photos. In pl. 30 we see the façade (to the right) and the West wall (to the left), which is not yet fully uncovered. We see at the left end of the photo a part of the West wall which is almost 2 m. lower than the rest of the walls; its upper ends show a level surface, and the place where the wooden beams once lay horizontally is clear. Indeed, in this room the West and North walls were each composed of four great windows, separated only by thin wooden jambs. Stones were employed hardly at all, apparently only over the lintels. The result is that along these two walls no catastrophe layer existed. Only very few stones were found on the floor, which was made of leveled debris of the previous catastrophe (pl. 31b).

This part of the building was the most interesting in the whole West House. The room with the eight windows (plan 3, no 5) is the already famous salon of the Miniature Fresco, perhaps of the young Krokopeplos, and of the two fishermen. Next to it is Room 4 (see plan 3), the «Room of the Cabins». Its walls were painted with a design that may be called the admiral's cabin, and which is repeated seven or eight times. The window, through which this room received light, was painted with flower pots and lilies, as we will soon see. Pl. 32b shows this window better, the most impressive yet found. To the right on the photo is Room 4, and behind the corner is Room 4. The latter was the bathroom, serving also as a workshop for the painters at the moment of the catastrophe.

It is clear from our provisional plan 3 that the entire house, of which the North wall is still partly buried, is in the shape of a trapezoid. On reaching its foundations in the places where the buttresses have been laid, we made the following observations: the virgin rock is 1,40-1,50 m. under the surface of Triangle Square. The trenches for the foundations were opened a bit wider than the thickness of the walls (about 80 cm.) and the spaces were filled with earth and stones after erecting the walls (pl. 32a). The floor of the Triangle consists not of filling from the catastrophe but of blackish earth and stones, apparently the natural soil of the pre-explosion island.

Entering by the door, we find ourselves in a little vestibule with two oblong corridors (1 and 2), surely a staircase. The layout is not yet clear. The Eastern flight of the assumed staircase (2) shows only a first and a second step, visible through the door in pl. 31a, then a gap,

above which, more than 1,30 m. higher, a series of steps appear suspended (pl. 33a). The beam holes are still clear below the stone steps. We suppose that this could be the result of huge pressure from below during the course of the catastrophe. Indeed, the same phenomenon was observed earlier when we found the curved sill of a window directly opposite on the other side of the street. But this is only a simple preliminary hypothesis; further excavation, very difficult in this area, will clarify the matter. Northward from here is a room (no. 6 on the plan) still partly covered by thick layers of aspa. Along its East wall parts of the roof (or a third storey floor?) had been toppled together with masses of pottery. Pl. 33b shows the South-East corner with a fragment of the fallen roof. It consists of beaten earth, in the surface of which minute sea-pebbles had been mixed. This is a feature of earthen floors which in other parts of the excavation have been preserved in situ. The pottery in this area consists of various kinds of vases; many of them are painted (pl. 35b), and there are quite a number of small conical handleless cups among them. Further to the North, almost in the North-East corner of the room, the handleless cups became almost the only class of pottery, except for a beaked pitcher. At least 105 pieces appeared during the initial clearing-out (pl. 34). The position of this heap indicates that the cups were cast downward from a shelf, or even from an upper storey. In the lower left corner a pile of 10 lead weights was found, some of which can be seen in the photo. Their diameters range between 21 and 70 mm. (see below, pl. 83d).

Further excavation of the West House proceeded with difficulty, due to its ruined state and the consequently complex problems this presented. Its exterior was covered with layers of aspa, alternately white and dirty grey, which left a wavy line along the façade<sup>11</sup>. Inside the house was partly filled with pure pumice at the deeper levels, indicating that the house was a roofless ruin when the volcanic eruption began. The upper storey, on the other hand, was filled with aspa.

The central room of the West House (no. 3) opens onto Triangle with a huge window that is wider than it is high. Pl. 35a shows its Eastern half from the room's interior. Beneath the sill, a stone trough of triangular form very familiar in Thera was found upside down. 12 Opposite, the North wall of the room stands erect, though much damaged. As pl. 36a shows, a beam had been embedded in the wall, the trace of which was filled with concrete imitating the original form of the «evaporated» wood. By this method we ensured stability of the walls, and at the same time regained the shapes of the wooden frames, which in

some instances were rough tree trunks. The rebuilding activities of the town had evidently caused a shortage of lumber.

A large piece of the floor of the upper storey (or rather of the roof of the house) had fallen onto the North wall. This floor fragment is of beaten earth, 15 - 20 cm. thick (pl. 36b), and quite heavy. Underneath it is a series of cupboards, the form of which is not yet clear. In pl. 37a we see one of them, and beside it a clay rhyton, while in pl. 37b another nest of miscellaneous vases appears a little further on.

There remains the West side of the house (Rooms 4,  $4\alpha$  and 5) which is the most interesting. These rooms were excavated to the bottom, and they present a vivid picture not only of their contents but also of the dramatic moments of the catastrophe. We start from the Northernmost Room 5, the largest and most interesting of all (plan 4).

As already stated, the North and West walls (that is, all the exterior walls) were open to daylight by means of four windows in each wall. Beneath the sills portions of the interior walls were painted in marbled patterns to a height of about 30 cm. The floor was made of schist slabs. In pl. 38a we see the aspa filling of the windows (protected with gauze to prevent collapse), then the marbling, and, in the North-West corner, a floor slab intact in its original position. In pl. 38b we see about half of the West wall, and the North wall in its full length (4 m. exactly), with the Fisherman Fresco as found. The slabs of the floor are visible along the length of the walls. The marbling consists of metopes 60 cm. long and 30 cm. high, separated by «triglyphs» 18 cm. wide. The triglyphs are all yellow (imitating wood), while the marblings show varying veined designs.

Pl. 39a shows the careful removing of the aspa in order to clear out the windows. The wooden jambs which once separated the windows correspond to the yellow triglyphs of the marbling. (The marblings had already been removed when the photo in pl. 39a was taken.) On the sills of all windows we found vases or implements. Window 1 (beginning on the East, near the Fisherman) had a group of several little vases, shown in 39b. The second window held clay vases and a stone bird's nest fluted vase (pl. 40a and 77c). Window 3 contained only a one-handled bowl, and window 4 bore a precious, but forever lost, item: a painted stucco table of offerings. One of its feet has been preserved, with floral designs painted in vivid red (pl. 40b).

Inside the room we carefully began to remove the aspa in horizontal thin layers. Soon we came upon holes at irregular intervals along the North wall and rather regular at the base of the East wall. Some

days later, the plaster we had poured into the holes showed the following results. In front of the North wall, smaller and larger pieces of thin wooden boards had fallen. Three of them were measurable: one, rectangular in form, measures  $45 \times 28$  cm; the other is trapezoidal, 28 cm. broad, with the long sides measuring 46 and 50 cm. respectively. A third one left its black imprint on a slab of the floor; it had nearly the same dimensions, and its black material consisted quite clearly of parallel threads. We were of the impression that it was palm wood. Surely we had here some kind of equipment belonging to the windows of the North wall. The thickness of the boards must have been about 3 cm.

Along the East inner wall (which divided the present Room 5 from the central Room 3) there were little holes near the larger beam holes of the floor. We had met with these holes in previous seasons also, and in some instances the plaster molds gave us long thin rods. Only now occurred to us a probable explanation of the phenomenon. The shapes of the plaster poured into the holes in Room 5 yielded recognizable little pieces of wooden pegs 50 - 60 cm. long and 3 - 5 cm. in diameter (pl. 41a). It seems clear that from beam to beam and from the last beam to the wall these wooden rods had been fastened transversely. This would have facilitated the laying of branches and foliage and beaten earth, upon which the schist slabs of the floor were customarily laid.

The East wall bore cupboards and shelves, and near its Northern end a door. A hole in the floor in front of it, after being filled with plaster, revealed later, when the room had been sufficiently emptied, a section of board still standing almost erect (pl. 41b). When it had been completely freed (pl. 41c), we saw that it was a fragment of a plank 25 cm. wide by 83 cm. long. It may be that it belonged to the door, or to some of the cupboards.

The most precious finds, however, awaited us on the slabs of the floor, standing in situ along the whole North and West walls only. Close to the North-West corner of the room, the skillfully scraping knife of Perrakis uncovered the first marvelous piece of the Miniature Frieze, which apparently had decorated all four walls of Room 5. Pl. 42a shows it as it was found. We referred to it variously as «the divers», «the sponge fishermen», or «ship-wrecked and drowned» or «fighters of a sea-battle». After fitting together all fragments of the miniature, it is clear that only one of the last two descriptions is the correct one.

Advancing to the East along the North wall, eventually we found fragments depicting a settlement of foreigners, with an army of «Ae-

gean» warriors landing from the sea; then we rescued fragments showing cattle, and a curious nude human being. Subsequently, at the other extremity of the North wall and exactly on the North-East corner, was an admirably preserved ephebus, one might say the first kouros of the Aegean; he awaited us for some three and a half thousand years, standing erect, holding in both hands strings of mackerel. Pl. 42b shows the young fisherman as it was found, only its upper part was covered with gauge for protection.

Next to this painting came the East and South walls. All fragments of the Miniature Fresco belonging to these walls were found at different depths. They represented a subtropical landscape (East wall), a town (South-East corner), the Aegean fleet (South wall), and another town (South-West corner). From the West wall we have with certainty a second fisherman, in much damaged condition. There is a slight indication that the Miniature Fresco continued also here, but only a single fragment survives. We harbour a faint hope that outside the room, in the catastrophe layer, some further fragments may be found.

The first row of floor slabs still stands in situ along North, part of the East and West walls. In the center, the slabs had been thrown down into the basement so abruptly that along the East wall they were found almost perpendicular and parallel to the wall (pl. 41d). The slabs removed, the floor of the basement room was found full of pottery. Pl. 43a gives an impression of the uppermost layers. Most of the vases, with the exception of the most valuable, we left in position. Pl. 43b and 45 give an idea of the whole floor. The pottery consists of storage jars and minor ware, all accumulated along the North, East and South walls of the spacious basement room. As a matter of fact, the middle of the room was empty, and the greatest damage had befallen the pottery of the South wall (at right in the photo).

ROOM 4

It lies to the South of Room 5, which, considering the luxury just described must undoubtedly have been the parlour or the living-room of the house.

Room 4 is of roughly the same dimensions as Room 5, but a thin partition made of raw bricks divided it into two compartments: 4, which most probably was the bedroom of the owner, and the smaller  $4\alpha$ , which must have been the bathroom (see the more recent detailed plan 4).

The wall which divided Room 4 from Room 5 was thick but it presents a curious feature: only its Eastern half was built with stones. The rest was made of raw bricks. Pl. 43b and 45 show this wall after it

was completely cleaned. To the left is the basement of Room 5 and to the right the basements of Rooms 4 and  $4\alpha$ . It is clear that the wall in question belongs to the first period of the house. After the catastrophe in ca. 1550 B.C. it was used again and was completed with a light construction of clay-bricks or rather clay-slabs. At least three clay jambs were clearly distinguishable in it; one of them appears in pl. 46a, where fragments of painted ikria («cabins») are also clear. We must conclude that this clay wall was divided into cupboards as is the case with the East wall of Room 5. The cupboards were painted red in Room 5 while, as we shall see, on the other face of the wall, belonging to Room 4, a series of «cabins» was painted. The top of this wall, on its face to Room 5, was painted with the most interesting part of the Miniature Fresco. In its East corner we have found the fragments of the second town together with broken imported Minoan vases. Pl. 46b shows fragments of such a vase, which was completely restored, as appears on pl. 47a. Such vases were often found together with the fragments of the Miniature Fresco.

Room  $4\alpha$ , as already mentioned, was painted on all four walls with the «ikria» motif. The room was lighted by a window on its West wall (pl. 32, 44 and 47b). Next to it an ikrion was still preserved (pl. 52) in situ on the wall, then came the thin clay partition (the Western end of which appears on pl. 52), which separated the bedroom from the narrow bathroom, the West end of which appears on pl. 52.

The window of the bedroom just mentioned is the most luxurious yet found. Its sill was painted with an elaborate marbled motif and on its South extremity a pyxis-strainer and two handleless bowls were still in situ (pl. 47b). Both window-jambs were painted with large jarlike flower pots of veined marble from which red lilies emerged. Pls. 48-51 show this very window after cleaning. The lintel has not been preserved (see also colour plate 3).

South of the window the West wall of the house is well preserved and a painted ikrion still stand in situ on the wall (pl. 52). It is just over 1 m. broad and on its left side it touched the thin partition of the bathroom (the extremities of the gauzes protecting the painting, as seen on the photograph, are nailed just on the rest of this wall, beyond which can be seen the alcove of the bathroom). On this thin clay partition as well as on the other walls, the ikrion painting was repeated eight times in all.

When we removed the ikrion and the underlying marbled dado seen on pl. 52, an interesting trace of the earlier period of the house

appeared: it was an older plaster of the wall still standing in situ (pl. 53). It is of cream-white colour dotted with reddish paint. Such earlier plasters have repeatedly been found in our excavation.

The thin partition separating the bathroom from the rest of the bedroom stood upon a thick wooden beam of the upper storey floor but in the basement there was no separating wall between bath and bedroom (see pl. 43b and 45). The result was that the light clay wall of the bathroom collapsed almost intact and almost perpendicularly into the basement. The painted ikria were broken in large pieces, as always happens throughout our excavation, when such brick walls were painted. Pl. 54a shows one large and several smaller fragments. Pl. 54b presents still larger fragments which are almost upright. The conditions were similar in the West part of the opposite wall between Rooms 5 and 4 (pl. 55a) because, as we have seen, the West part of this wall was also made of clay bricks; for this reason the restoration of the painting was quite easy. Pl. 56 shows the ikrion of the window restored, while pl. 57 presents one of the ikria of the bathroom wall and part of another. All eight ikria from the bedroom have been restored without serious loss. The position of each one upon the four walls of the room is sure. One strip which remains blank corresponds to the dimensions of the young «priestess». 13 Thus, we have a second room (after the Room  $\Delta 2$  of the Spring Fresco), the paintings of which have been entirely recovered, the «priestess» almost surely belonging here.

Room  $4\alpha$ , the last and smallest, presented a unique interest. Not only was its excavation full of moments of emotion but, what is more, it is, liturgically, the most perfect bathroom so far discovered. It served, at the same time it seems, as kitchen. The main kitchen, however, was in the basement below, and served simultaneously as a little workshop of metallurgy, as we will see below.

The bathroom-and-kitchen was found only partly covered with wall-plaster. The upper Eastern portion of the walls were still unplastered; and, of the plastered portions only the lower sections were painted ochre-yellow to a height of about 60 cm. (col. pl. 2). On the West wall there is a square niche, only 15 cm. in depth. It is 82-90 cm. broad and 1,28 m. high (pl. 55b). At both its lower corners there are two kinds of benches made of hewn and of unhewn stones covered with plaster. Their upper surfaces stand 0,43 m. higher than the floor and they have a depth of 0,37 m; they are not symmetrical as the left one is 0,50 m and the other only 0,26 m. broad. Between them there is an open space 8-9 cm. broad, and this slit ends above a vertical installation of clay

pipes. These cylindrical pipes are about 20 cm. diam. and descend unseen through the wall down to the foundations where (externally) a pit was built (see below). Thus, we can explain the niche of the bathroom. Its function was to act as outlet for water and kitchenwaste directly into the drain-pipe.

The floor of the bathroom has been preserved beside the South wall in a strip 50-80 cm. broad (pl. 58). Opposite the niche, in the South-East corner, interesting and almost dramatic finds were made on the floor. First of all two broad-mouthed jars were still in situ (pl. 58b) and they were still filled with plaster ready to be used. Professor Walter Noll, to whom we owe the chemical investigations of much material from Thera, says that the workers must have been literally taken unawares by the disaster. Indeed, the plaster was to be used at once, before it dried. Pl. 59a shows the two vases, which were temporarily removed and cleaned.

Near the jars, two rubbing pebbles were found (pl. 59b) with which the colours were grinded and perhaps the plaster was smoothed. But the most touching find was a miserable bowl already broken in antiquity (pl. 59c) containing the artist's red paint. It is of mineral origin (iron oxids). When it was already half-dry, but still soft, a little animal left the imprint of its paw on it (pl. 59d). The last work of the unknown, humble artist, who worked in a corner of the bathroom, was the admirable table of offerings, painted in the newly fashionable marine style. We now realize that it was put on the window-sill of the bathroom to dry, protected by a cooking-pot inverted over it, 15 when the disaster came.

Our artist, as we see, worked in the kitchen and he prepared his pigments in broken bowls. Artists have fought for long centuries before they acquired a certain social distinction. Even when the Parthenon was built there prevailed no other opinion than that such people counted among the βαναυσουργοί. The great vase painters of Athens worked under no better conditions and were not people of quality, to judge from their abusive language, as has been discovered among the ostraca finds of the excavations of the Agora and of the Kerameikos. Even in times not far distant from our own, the same conditions prevailed against names, which today are idols among all people of the Earth. Haydn, as orchestra director at the court of prince Esterhazy had his apartment in the servants wing; Schubert was also treated as a servant and dined with valets and chambermaids.

That the present room was the bathroom is certain. Among the

ruins of the collapsed floor we have found fragments of the bathtub and two slabs upon which it may have stood (pl. 60a). Another stone, perhaps served as a lid, and further finds will be described below. We believe that the two benches of the niche served as a hearth and the slit as kitchen sink. We prefer this explanation to the alternative that it was used as a lavatory, in which case the offensive smell would have been unacceptable in the vicinity of the most luxurious compartment of the house. Our fig. 2 is a sketch of Dr. Koumanoudes showing the West wing of the West House. To the right is the «Living room» (no. 5) with the preserved part of the inner wall. Left of this wall is the «bedroom» (no 4). The two windows of the basement are visible and above them the luxury window of the bedroom. Then comes the thin partition wall and, beyond it, the bathroom with the niche of the West wall and the window on the façade wall, as well as the window of the basement (metallurgy shop).

The clay pipes mentioned above end near the foundations of the South-West corner of the house. The excavation revealed there a large slab ( $70 \times 70$  cm.) leaning almost upright against the wall (pl. 60b). We realized at once that it was over the pit of a drain. After the removal of the slab we met the stone-shaft of pl. 61. To the right lies the lowest

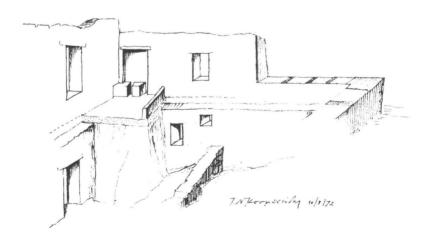


Fig. 2. Design of the SW. section of the West House. From right to left: room 5 ("Living room"), 4 ("bedroom"), and 4a ("Bathroom").

part of the wall of the house, where the clay pipes stop. Just under the hole of the lowest pipe, about 15 cm. under it, a thin slab was consolidated. It was not horizontal, but leant about 40° to the external side of the wall, where it was consolidated upon the edge of a larger, perpendicular slab. On the East, this last slab constitutes, the narrow sidewall of a rectangular pit, the remaining three sides of which were made of irregular stones without any mortar (see the design of fig. 3). The pit is 1 m. long, i.e., it occupies the whole width of the road. The excavation was difficult, but it seems that in this pit end the mouths of two, perhaps three small stone sewers. Pl. 61b shows, to the right, the vertical and the oblique slab (this last broken in two pieces) and the pit. It was full of dark black earth, which means decomposition of organic matter.

Pl. 62a presents the whole tragic story of the West House. Above, in the central part, just under the metal beam of the shed, one can see the upper storey with the niche and the floor of the bath. To the right is the window of bedroom 4 while further to the right one can see the Western opening of the Miniature Fresco Room 5. In the middle of the picture, to the right of pillar 23 of the shed, appear the two little windows of the basement (West wall). Clearly visible to the left is the collapsed floor of the bathroom. The clay bricks of the wall still stand upright (especially near the window).

In removing the debris we met characteristic finds: first the bathtub (pl. 60a), then a metal object, which was soon recognized as the leg of a bronze cauldron (pl. 62b). After the first cleaning it proved to be a cylindrical tripod-cauldron with two horizontal handles (pl. 63a). Apparently the water for the bath was warmed in it and perhaps also the meals of the masters.

Further excavation has shown that the basement floor of Rooms 4 and  $4\alpha$  lay deeper than that of Room 5. We thus had a kind of cellar, lighted by the last window of the façade towards the Triangle Square (colour pl. 2). Two large stone steps connected basement 5 with this cellar, which was the kitchen and, at the same time a little workshop of metallurgy. Lead and possibly silver were extracted from the keroussite and galene, which existed and still exist on the island. <sup>16</sup> On the floor of the cellar were found a broken jar, a broken cooking pot and a third one which was equally broken, but still upright (pl. 63b). This last showed traces of intensive burning, though no traces of charcoal were observed. <sup>17</sup> Inside it is still filled with a whitish substance, much like pumice, but heavier. Near the pot, a bowl containing the same

material was found (pl. 64a), but the white, heavy material is here firmly stock to the inner side of the bowl. Apparently we have before us a method of cupellation for extracting possibly silver from the lead minerals.

In the same figure one can see two pebbles; but many more appear on pl. 64b, some of them on the first of the two steps. To the left appear the cooking pot and the bowl. We have also found a little stone mortar of andesite (pl. 65a). Among the pebbles are a conglomeration forming a man's foot (pl. 65b below right), egg-shaped hammers with two cavities (same pl. upper right corner). Pl. 66a shows hammers or grinding stones of three types (the middle one with a light median groove) and a smooth grinding stone like a whetstone or file. Some of the stones are bored (pl. 66b). Finally, pl. 67a shows to the right a similar file of trachyte and to the left a heavy stone, possibly keroussite, the upper surface of which is perfectly smooth owing to the filing. We suppose the keroussite was ground into powder, in which case the silica-

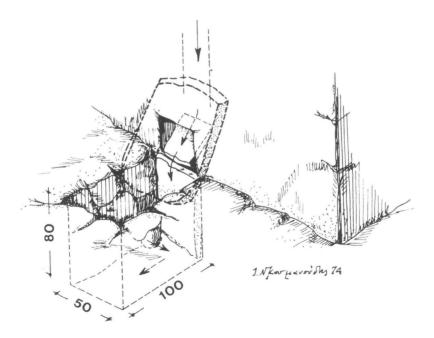


Fig. 3. West House, design of the bathroom's pit.

tes could be easily removed. The resulting metallic concentrate was put in the cooking pot for smelting. Specialists may see more clearly what exactly happened with this little domestic industry.

SOME EXCAVATION'S SKINDALAMOI

Of minor details, which are abundant in every excavation, we shall mention here the most interesting: In Room  $\Delta 16$ , well known from the abundance of its pottery, we have opened a well

for deplacing pillar 14 from the pylon's door. During the opening, made by Dr. Doumas, a deep, handleless, cylindrical bowl was found. It is handmade and bears an incised X-like symbol; and, what is more interesting, two fine genuine Kamares-sherds were collected. In pl. 67b appears the goblet, MH in date, the sherd to the left, which is almost egg-shell ware with fine white and red decorations, and the sherd to the right. This belongs to a base, shows the concentric circles of the thread and a black glaze as fine as if it were of the classical period. Pl. 67d shows another black-glazed sherd (possibly slightly later in date) which was found in the «House of the Anchor».

In pl. 67c we see the upper part of the sealed ewer which was mentioned above. As part of the lip was missing, one can study the method of stopping: inside the neck-was first put a handleless conical bowl, then a big lump of clay, which covered both the hollow space of the bowl and the broad lips of the ewer.

The interior of the vase was full of little seeds. It is interesting that some of them had developed rootlets (pl. 67e). This phenomenon has frequently been observed in Akrotiri. <sup>18</sup> The inner side of the ewer still preserves the colour imprints of the seeds (pl. 68a where the corking-bowl is also visible). Pl. 68b shows some seeds almost life-size. Unfortunately, I have not enough experience to identify them. A more expert colleague remarked that they are very similar to radish seeds but this is not very probable.

Pl. 69 presents one of many stirrup vases found, decorated with white and brown. The potter found it necessary to cover with white paint the inner part of the vase at the point where the cylindrical spout joins the body. His purpose is not clear.

In plate 70a-d we read the story of a «magic» vase found together with the Miniature Fresco fragments of the South-West corner of Room 5 of the West House. We first found a funnel-shaped object, the technical details of which showed that it could not be a rhyton (pl. 70c). Later, in the mender's laboratory, we succeeded in fitting together the

pieces shown in pl. 70a-b. In pl. 70d appears the final reconstitution, although some little fragments are still missing. One of the three handles of the regained little pithamphora bears a hole communicating with the interior of the vase. When filled, it was no more possible to empty it from the mouth but only from the little hole in the handle. For the non-initiated this would appear as a mystery. For the priest or priestess it could serve as a sprinkler.

Numerous vases were found with their lids. These, as far as jars are concerned, are simple circular slabs of schist or round clay discs. The smaller vases were often stopped with clay bowls or other little pots. A series of vases had stone lids, which are wedge-shaped pebbles (pl. 71) especially on ewers, or disc-shaped (pl. 72). Often the lids were «by order», as they fit exactly on the pots mouths (pl. 72a). But this is exceptional; usually the pots are imperfectly stopped. Curious is the stopping of a bridge-spouted skyphos, whose spout was stopped with the bow-shaped handle of a broken pot (pl. 72b).

THE POTTERY

never used.

an adequate description is impossible. The most precious were removed and cleaned. Only a few can be described here. As a matter of fact, the great bulk of the pottery is of local fabric. Only a few of the vases were imported; they are usually of shapes common to the local ones. The latter, in their turn, often imitate literally the forms and decoration of the imported prototypes. Pl. 73a-b shows, left, a local and, right, an imported ewer. Both the lower vases on the same plate are local, but the heart-shaped motif of the strainer is of Minoan origin. On the other hand, the swallows-ewer of pl. 74 and the nice cupping-glass-shaped vase, white on a lilac ground, (comp. colour pl. 10) with crocuses and branches be-

The number of vases found is so enormous, that

Only a few vases were removed from the «House of the Ladies». One of them is the little jar with lid pl. 74c. The bows round its foot announce the next period of LM IB. We have already stressed the fact that in Thera the most abundant among the vases are ewers. Plates 75 and 76a present three such vases from the «House of the Ladies». Their main motif is the spiral zone framed by wavy lines and abundant stippling with white and brown. The same decoration prevails also on bowls, 19 so that the idea of a «service» springs to mind.

long to the typical local tradition. The pitcher (pl. 74b) belongs to the class of a few vases, which had just come out of the kiln and were The West House yielded nice pottery; we had already found several fine pots during the opening of Well 23: a coarse plate with two handles and white decoration of branches (pl. 77a) is perhaps of religious significance. A similar pot was found in the vicinity of the Spring Fresco together with a table of offerings.<sup>20</sup> Further we found the eyedjug, pl. 76b with medals, rosettes and lilies, and the strainer pl. 77b <sup>21</sup> and colour plate 10. All these vases are matt-painted, as well as the nice find on the sill of the «bedroom» window, consisting of a strainer and two goblets (pl. 78a). For the first time we find a strainer with a lid. But, curiously enough, the lid is of another, lighter quality of clay than the strainer (colour plate 10). It fits the mouth of the pot so well, that it would be unreal to ascribe it to another vase; the decoration is of «endless» spirals, crocuses and white dots. Purely local too is the decoration of the little jug (pl. 79a) consisting of «wetches» and a grape below the handle.

It is notable that the West House yielded much Minoan pottery, while the House of the Ladies did not. Much of the imported pottery was found in fragments together with the Miniature Fresco. We have to suppose, therefore, that the noble vases laid in the parlour of the house at the moment of the catastrophe. Some of them slipped to the basement together with the floor of Room 5. Only a few of the imported vases were found stored in the basement proper. Pl. 79b and colour pl. 10 show two elegant vases with foot and abnormally long spout. Their typical Minoan decoration is varied with white dots. Equally exquisite are the askos and the pear-shaped alabastron of pl. 79c and col. pl. 10 and the chous of pl. 78b (col. pl. 10), the white parts of whose decoration have been worn. This means that it was intensively used during its life.

Though there are many more fine imported vases, two locally made polychrome, long and small vases, which for the sake of convenience we call «kymbai» (boats), incontestably come at the head of the 1972 ceramic finds. The first was found in the Ladies' House and the second in the West House. Both are the work of the same hand. Plates 80-82 and col. pl. 11 illustrate these valuable pots. On the one side they bear traditional, not quite identifiable fauna, perhaps we can recognize roedeer and ibex with a long snout as if it were the beak of a bird. These animals graze exclusively in crocus fields. On the verso both vases show dolphins among the waves and the bottom of the sea. The seascape is animated by rocks and seaweed. These charming scenes are painted basically in brown and relieved by white and red details.

STONE OBJECTS AND MISCELLANEOUS

Perhaps the most interesting stone find is a broken, but entirely preserved horn of consecration. It was found before the crenellated Eastern façade of Xesté 1 (pl. 83a). Not far from it (Well

36, i.e., inside Xesté 2) a little stone base for a double axe was found (pl. 83b). All this means that this quarter was of special religious significance. Because all buildings here are in ashlar masonry (Xesté 1, 2, 4 and possibly one more, if not two), we may conclude that in this sector we are approaching the most or, at least, some of the most prominent buildings of the whole town.

The West House yielded many particularly interesting stone objects. A matrix of gray schist served for casting an oblong object (chisel?) and a circular, lense-shaped object with sharp edges (pl. 83c). The nice lamp of marble-like veined stone of pl. 84a and colour pl. 10 (unfortunately printed upside-down) was found on the North wall of Room 6. The bird's nest vase of pl. 77c of black steatite was found in situ on the sill of the third window (from the East) of the North wall of Room 5. Its grooves are not vertical but have a light torsion towards the left.

Many bone instruments are found annually, which must be treated separately some day. Pl. 84b shows a borer in a specially good state of preservation. Pl. 84c shows objects found in different seasons. The bronze borer on the lower part of the photo, square in section, has been preserved with its handle, which in both cases is a long bone of a little animal. Over the borer two bone pins appear, the upper part of which are of polygonal section. The uppermost row shows a little rosette of ivory and two button-shaped bone objects supplied with holes. In pl. 83d are shown the lead weights found in Room 6 of the West House. A last one, destroyed by oxidation, has been submitted for chemical analysis.

THE FRESCOES OF THE WEST HOUSE Last year's discovery of the «Priestess», the «Banner» and two fragments of Miniature Frescoes, all published in Thera V, gave promise for the future. Indeed, this was fulfilled beyond expecta-

tion. The painted relics found are of the utmost importance both as works of art and as historical documents. There were found: 1) Two young fishermen, which had once decorated the North-East and South-West corners of Room 5; 2) the «Miniature Fresco of Libya», a frieze which adorned the three, or possibly all four walls of the same room; 3) the «Ikria Fresco» of Room 4, where the same subject was repeated eight times;

and 4) the painted window of Room 4. The two last cases (3) and (4) should have been adequately described above. It must be added here that the curious device, which was repeated eight times in Room 4, is the oldest detailed representation of the stern ikria in Aegean naval architecture. Homer describes the ikria always in the plural as a series of upright standing wooden posts, the σταμῖνες and another of horizontal posts, the ἐπηγκενίδες. <sup>22</sup> Indeed, we have here three stamines (ending in the Lily-Waz symbol) and three epengenides in the visible side of the ikrion. In the Geometric period, the posts constituting the ikria of the ships are more numerous, thus forming a kind of balustrade. In our case, about three quarters of the ikria-side is covered with oxhide, while the uppermost remaining quarter is free. There is no roof over our ikria, which seems to be what may be described as a spacious body-shield.

As for the two fishermen, the first of them was found practically intact, for reasons explained below. The second fisherman and the Miniature Fresco fell in hundreds of little and particularly tiny fragments. Only experts can realize how difficult is the reconstruction of such frescoes. Owing to the variety of the painter's subjects it is difficult, if not impossible, to recognize what is represented upon one fragment. Moreover, it is very difficult to succeed in joining most of the fragments together owing to their brittle nature. Happily, only plaster applied upon stone walls is so pitifully broken. When we have inner walls made of large raw bricks, the frescoes fall together with them in larger pieces. In any case, accurate observation of the position of the fallen fragments facilitates their reassembling. It is most difficult — if not impossible — to piece together fragments whose position has become confused.

When the fragments of the Miniature Fresco began to appear in Room 5, they were so minute and so dispersed, that we at once decided to apply a strict «topographic» method. This procedure later made possible the speedy reconstruction of the frieze. We publish here the drawings of the «topography», where it is noted beside which one of the walls and at what depth every fragment was found (plans 5-7). We are grateful to Prof. S. Iakovidis and to the young philologists Ghioles and Petropoulos as well as to the technical personnel under Margaritof and Perrakis.

The fact that the first fisherman is possibly the only «self-existent» fresco painting (pl. 85 and col.pl. 6), simultaneously explains why it is admirably preserved. Indeed, the plaster was first applied upon a great

clay slab and was also extended over its edges so that it «embraced» the clay support. Pl. 86a shows it at the moment of excavation and pl. 86b, taken in the Byzantine Museum, shows more details. If this clay slab (3 - 4 cm. thick) had been moistened from time to time, it would have been another important facility for the fresco painter. Such readymade paintings were embedded, it seems, to the walls, if not literally hung. The present work slipped and fell gently upon the slabs of the floor. Only the extremity of the feet was slightly damaged. Last year, we found under nearly similar conditions the «Priestess» (col. pl. 5) and two ikria (then named «Banners»). We had characterized their finding as a «curious fact» and their fine preservation as «a miracle». <sup>23</sup> We must now conclude that they were fastened to the walls in a similar way.

The fisherman, measuring from his feet to the top of his head 1,075m., i.e. about two thirds natural size, is a superb work of art. It reminds us of a youth of the classical period with his clear profile, his slender stature and his poised movement. It is also the first time that we meet a completely nude mortal (excepting small children) in Minoan art. One can further reopen the famous question of qarnata-circumcision, which has provoked much discussion. Indeed, the pudenda of the youth end not pointed as in classical art but round (pl. 87a). As we see the same thing upon one of the drowned warriors (see below), it seems that we are dealing with circumcised people; it has been supposed that such people were in conflict with Egypt and were characterized by some quality designated by the word qarnata. The Achaean people seem to be meant by «akaiwasha», hence the heated discussions about circumcised Aegean people. <sup>24</sup>

Our youth shows no decoration except a thread around his neck. He holds a string of fish in each hand, which depicts the usual hybrid nature of the Minoan fauna and flora. After various inquiries into the colloquial names of fishes, we came to the conclusion that we have to do with the scomber-family (mackerel) and particularly with the species coryphaena hippurus. In ancient times the name of this fish was ἕππουρούς iππουρούς and κορύφαινα (Aristotle). Its actual name is κυνηγός («hunter») among Cycladic fishermen. Pl. 87b shows this fish freshly caught from the Aegean Sea. 25

The hairstyle of our fisherman is curious (pl. 88). When the Boxing Children <sup>26</sup> emerged from the earth, we put forward the explanation of a cap tightly fitted on the head; on this cap were affixed hair-tresses. I am afraid that this idea is unconvincing. It may appear daring, but I think that it is more probable that we are dealing with a sha-

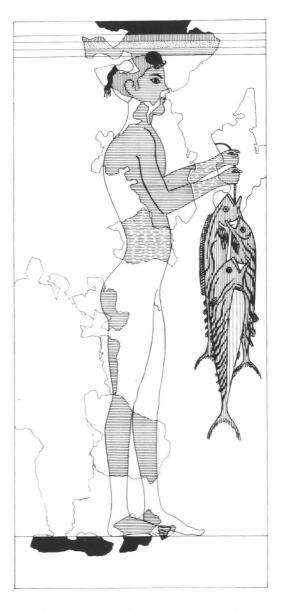


Fig. 4. Fisherman no 2, a design of the preserved parts of it.

ven head sparing a few locks of hair. I have come to this conclusion after several other facts persuaded me that we have before us, in Thera, close connections with Libya. We cannot discuss the matter further here. Suffice it to add that this fashion has always been of Libyan origin and that even today it survives in the Sahara and in North Africa generally. One of many similar pictures we give here (pl. 89a) shows a hair-style analogous to that of the Theran youth. The scene depicts teaching in a school in one of the oases of Mauritania <sup>27</sup>.

This fact gives us a glimpse into the historical interest, which is implicit in the masterpieces of the Theran painters. We literally have to turn a page the verso of which may be a new chapter in History: is our young fisherman a Theran or a Libyan? Are the scenes to be understood as taking place on the Libyan shores or in the Aegean? And in this last case, which one is the most probable land, how are we to explain the troop of painted blue monkeys, the antelopes, the frequent use of big rings in the ears of males and females? Is the fauna meant as living in Thera, as I originally supposed, or more probably we have to do with works, portraying the Libyan landscape and life?

In Minoan art the artists used to incise a variety of things upon walls, vases, tablets and even seals. Here we have an incision to the right side of the youth (pl. 89b) representing how a fish is caught by the fishing line.

The second fisherman (pl. 90, col. pl. 6 and fig. 4 in design) is in very bad condition. The fitting together of the fragments found is the work of Margaritof as chief restorer and of Eliakis as painter. Here the fisherman advances towards the right and holds a single string of fish in both hands. They are all of them mackerel (scombers). These fishes reach about 40 cm. in size. The dark striations of the back have been adequately rendered but the dorsal fins are confused with those of other fish. Part of the youth's face with the eye and the lock over the forehead are sufficiently preserved to show that this work was of equal, if not superior, workmanship to the first fisherman.

THE MINIATURE FRESCO

This precious work is perhaps destined to open a new chapter in the history of the Aegean. A lot of problems arising from the details of the fresco will surely raise much discussion. Here it is only

possible to mention the chief aspects of the problem.

Our first observations especially concern the volcanologists. The question is about the state of conservation of the last part of the fresco,

which stood on the Western extremity of the Southern wall of Room 5. In the immediate vicinity were the four windows of the Western wall of the room and opposite the fresco, at a distance of 4 m. opened the four windows of the North wall. From these windows there could enter the room the powerful horizontal gusts of super-heated gases and sand particles, which have recently been recognized and treated under the name of «base surge». It has been acknowledged that this phenomenon occurred also at Akrotiri. <sup>28</sup>

Now, the photo of pl. 91a shows that particles like grains of sand have struck the fresco with such force, as if it had been the pellets of a sportsman's shotgun. This part of the fresco was just inside the Western windows. But the «grains» could have struck directly upon the fresco only if they had come directly from N. or from NW. It therefore follows that the gust came through the North windows (see plan 1). This means that the Athinios volcano or one of the more Northerly cones was responsible. Perhaps specialists will be able to read more from the material available. We should add that the Western side of Room 5, of which no trace has been found, was perhaps carried away by the «volcanic hurricane» (an expression used by volcanologists); and that, characteristically, the Southern jamb of the painted window of Room 4 still bears more severe traces of the bombardment (pl. 49 and col. pl. 3) than the Miniature Fresco.

As we go further away from the windows towards the inner part of Room 5, the traces of the bombardment begin to fade. After the last part of the town shown in pl. 91a we have a little harbour with boats under way (pl. 91b). There, the traces of the bombardment are slighter. Further left still, in the direction from which the fleet is arriving, the traces are even less. One of the foremost ships, the «Peleia», suffered still damage (pl. 92). Then, all other parts of the frieze, which covered the South wall, are free of traces of bombardment.

The rest of the painted walls of Room 5 are: in the North wall, which also completely disappeared, but fragments of the frieze which fell inside the room, have been preserved. The East wall was an internal one. Therefore, half of its frieze (1,80 m.) has been preserved. Of the South (inner) wall the frieze has been practically well preserved. We think it is better to give first a general description of the frieze in the order just mentioned, and then to add some comments.

As already noted, nothing from the West wall has been preserved. There is a faint hope that, when the area West of the West House becomes accessible to excavation, something fallen there may come to light.

The North wall, equally destroyed by the «volcano hurricane» left us few, but perhaps the most interesting fragments of the frieze; the preserved fragments are little more than 1 m. in length. One can decipher the following facts from the fragments: (the reader is advised to consult colour plates 7, 8 and 9).

- 1. Meeting on the Hill. It seems that, after a possible beginning in lost scenes upon the West wall, the North wall frieze began with a high and steep hill. To left and right, young people are climbing up the precipice with great difficulty. They wear the typical Minoan loin-cloth and nothing else. Some of them have reached the summit; they stand respectfully before a group of men, taller than them and clad in long mantles. They are all in movement and their vivid gestures betray the tension of their spirits and a moment of crisis.
- 2. Shipwrecks and a Sheep-fold. Though there is no direct join, the fragment just described must be very near the second one, which depicts the most dramatic scene of the whole frieze. It is also artistically the most interesting of all. Below to the right we see the flat rocky shore and above it a high, mountainous landscape with a building. The sea on the shore is shallow, as the painter has represented dark patches quite densely. I cannot find a better explanation than that this is an effort to show shallow sandy bottom with patches of seaweed. Well preserved are the prows of two great warships and, a little further the stern of a third. The upper one has a kind of "xpix near the prow, in which a tall warrior stands, with an enormous upright headless spear, watching, it seems, the field around him. Further long spears (ξυστά or χοντοί) project horizontally from the prow. They have pointed ends, but behind them there is a disc-shaped stop like a χνώδων. The lower ship shows its bowsprit (πρόβολος) broken or, at least, bent. Both ships are unmanned and everything on board is in disorder. Two ropes hanging from each prow remind us of analogous devices on Early Cycladic ships.

It is not certain whether a sea battle or a shipwreck is meant, but the former is most probable. Indeed, wrecks and dead men are floating on the surface of the sea. The drowned youthful bodies are little masterpieces of a great artist. The accuracy of the lines and the contorted, lifeless bodies are of unsurpassed boldness. One sees, further, three body-shields and a hook-like instrument, surely the korax. Further details will be given later.

On the high rocks there is but one building alone, supplied with three large openings, one of which is closed. On its roof or perhaps beyond it, we see four men and one woman, while a fifth is represented beyond the roof to the right. When we found the first fragments (pl. 110a), we gave the explanation that she is jumping from the precipice in despair, as her hands are characteristically extended. But the joining of new fragments and cleaning have shown that both women carry vases upon the head. Two similar vases lie on some kind of built bench. Mr. Eliakis expressed the opinion that it could be the built mouth of a well. Then a new explanation of the scene came to my mind: we have to do with a great sheep-fold. Right behind the building, which may well be a cheese-dairy, we see a circular enclosure made of upright poles with an entablature upon them. It is the fold. Two big trees provide shade for the cattle. There are oxen (two nice animals are partly preserved), sheep and goats. The vases are either for milking or more probably, for providing drinking water for the herd. The hydrophoros woman shepherd, (the other woman is equally an hydrophoros) who extends her hands, looks as if she were tenderly speaking to the leading he-goat, who advances first bringing behind him the thirsty herd. It is a Theocritean idyllic scene painted by a powerful artist. The leader of the herd (the ἐμπροσθότραγο of the Cretan shepherds) enlivens the Homeric verses (Od. 9, 450 - 451): Πρῶτος δὲ ροὰς ποταμῶν ἀφικάνεις, πρῶτος δὲ σταθμόνδε λιλαίεαι ἀπονέεσθαι ἑσπέριος.

The herds are painted in two rows: in the upper row the sheep, having been milked and watered, are now led to the pastures. Below, the goats are coming to their place. A masterpiece is the preceding *lascivi* suboles gregis. In both cases the herdsmen follow behind their flocks.

It must be supposed that this idyllic life, unchanged from the middle of the 16th century B.C. down to Theocritus and Vergil, has no inkling of the imminent danger. Meanwhile, the huge ξυστά ναύμαγα of the invaders are already much too near. Five of them are certain, another three in the gap of the fresco may also be considered as certain, and there may have been ten in all, just the number of the hoplites of a classical warship. They are protected by their body-shields, made of oxen-hides. To be more exact, we have here to do with the naval version of the body-shield, which, for the purpose of ensuring more agility to the marines, reaches just a little below the knees. All of them wear Amyntor's helmets with crests and other decorations. 29 Finally, they carry swords, from the sheaths of which some straps are hanging (see below). There is also a curious human being with a very prominent snout, as if it were a monkey, holding a rod or a rope. Everything else belonging to this extremely interesting fresco has been lost. 3. The East Wall: A Subtropical Landscape. The loss suffered by the

East wall amounts to more than half its area (1,80 m. frieze now available against 2,20 m. lost). Particularly damaged was the beginning, which was precipitated outwards, together with the area North-East of Room 5. While the rest of the frieze is 40 to 43 cm. broad, the Eastern section is only half that size. The basic theme of the painting here is a rather narrow stream following winding course along the whole length of the frieze. Its banks are covered with shrubs which stretch horizontally over the life-giving water. On either side of it extends the desert. Rocks scattered here and there and sparse flora (among which two mere papyrus stems) enliven the landscape, but there are abundant, vividly rendered palm trees. They do not have the usual, conventional form. On the contrary, they show luxuriant foliage; they are moving in a way showing strong winds out blowing. The fauna completes the picture of the watered desert landscape. We have a well preserved flying duck. A huge griffin follows, represented at the flying gallop over the hills. We are, perhaps, to understand that it is pursuing a stag which appears below it.

Still further to the right there is another vivid scene: a dotted predator of the panther family watches with open mouth a big bird with curved beak (ibis or flamingo), which not suspecting the danger, is busy with its toilette.

As we advance towards the end, the landscape undergoes a change at its right (Southern) extremity. The subtropical character vanishes and gives place to the typical Mediterranean wooded landscape, where oak and umbrella-pine prevail (pl. 94). This means that we have reached a high plateau. Indeed, mountain peaks are more conspicuous. Here we have a profoundly dramatic moment of the fauna life: a lion (a masterpiece of drawing) pursues a herd of stags that flee up and down the hills in a frenzied gallop (col. pl. 9). The last defenceless deer, which stands under the deadly breath of the rapacious king of the animals, opens its mouth to utter its cry of agony. The psychological moment, as rendered by the artist, is amazing indeed.

4. The Second «Town». Below the mountainous landscape with the ferocious life just described, the stream, or a stream subdivided into two branches, flows towards the sea. Here, there exists a town. To the left we see isolated buildings of characteristic form: a higher, tower-like part and another lower to the right or to the left. This last part always shows a broad entrance. The unchanging Oriental tradition still preserves this architectural type today (pl. 95a). 30 Still more characteristic is that each of these buildings is surrounded by a hedge or enclosure. It reminds us curiously of the watching towers along the banks

of the Danube represented upon the Column of Trajan (pl. 110b). 31

Near these buildings the confluence of the streams flows out into a marshy sea full of rushes. On either side of the rivulet two persons enveloped in long fur-coats, one standing the other sitting, are carrying on a friendly conversation (pl. 98-99). To the right a big boat with five (visible) rowers, helmsman and captain is advancing forward, where something interesting must happen. Indeed, all people in the superposed houses of the «town» (or possibly a big tower) look eagerly towards the same direction. The building has wide entrances, but narrow vertical or horizontal slits instead of windows.

5. The Fleet. The subject absorbing the attention of all the inhabitants is interesting indeed: it may be described as the presence of a magnificent fleet, all ships sailing to the right, escorted by a school of joyfully leaping dolphins. It is difficult to say whether the ships are just leaving the town or are simply sailing round the promontory. They advance in two parallel columns, seven ships in all, three of which are in the upper and four in the lower column. The latter have lowered the masts, with one exception, apparently for artistic reasons, i.e. in order to leave the upper row undisturbed. The exception in question is the only ship of the fleet which is under sail. All the rest are being rowed.

The best preserved of all the ships is the first in the upper row (from the left). Of the other two ships the one in the upper row must be the flagship. It is the only one of which the ikrion (cabin) ends in the papyrus-waz symbol, and moreover, it is represented in "full colours". The "cabin" of this ship was painted eight times on the walls of Room 4 of the West House. Therefore, the man appearing inside the "cabin" was the Admiral and, at the same time, the owner of the West House. 6. The Third Town. The foremost ships of the squadron have already arrived at a further town built on the rocks of the shore. The town has two quarters separated by an anchorage. All boats at this anchorage are preparing to leave in order to welcome the arriving fleet. At the extreme left, we must imagine that the artist wished to represent a promontory, the rocks of which are somehow different from the rest of the rocks of the fresco. It looks as if the artist wished to represent polychrome boulders and rocks, a fact we know already from the Spring Fresco. 32

After the promontory we see a height, on the summit of which there is a series of houses rather than towers and below it a curious large building. It has five superposed rows of triangular openings. Could it be a dove-cot? The main town is to the right of the anchorage. It shows superposed buildings, of the type already familiar from the

famous silver rhyton of Mycenae. They may be buildings or towers of the walls or both. Men and women are watching from the towers and from the windows. Everyone in the town is aroused. The women are waving their hands in greeting. Children are running right and left, fur and mantle-clad people are equally moving about. A long row of youths advances along the shore, driving in front of them a calf, apparently the animal for sacrifice.

On one of the towers we see horns of consecration. Upon a great isodomic portion of the walls in the right extremity of the town we see again a series of similar double horns. One should conclude that the fleet has put in at a town of the Minoan world, apparently Thera. But people with long mantles and furs, wearing non-Minoan headgear, warn us that things are perhaps more complicated. Full development of the fleet between the two «towns» see in. pl. 112.

GENERAL The main lines, at least, of the problems arising may be traced in this annual report. The first problem, of course, is the identification of the country where the events described here above are taking place. The possibility can be excluded that the land in question may be on the shores of Asia Minor, Syria or Egypt. We know these districts fairly well and nothing on the fresco calls for any comparison with them.

The first useful indication came with the discovery of fragments with horned sheep showing thick-haired chests (pl. 96a) and crests of raised needle-shaped bristles along their backs, as if they were boars. «Just boars», announced Perrakis, as soon as he picked up the first fragments depicting cattle (pl. 96b). Maned sheep we already knew from some documents of the Old Kingdom in Egypt. Their home was the desert and, in general, North Africa. They are still to be found in a wild state in the Atlas region. We realized at once that the most appropriate land to localise the story of the Miniature Fresco was Libya. We reverted to the admirable description of Libya, which modern authorities judge as a masterpiece of Herodotus; indeed further indications were soon added. 33

The second important indication comes from the precious scenes of the shipwrecked. One of them is shown here enlarged in pl. 93 which depicts a youth expressing the whole situation in a masterly fashion: already the extremities of his hands are enough to show that a lifeless body lies there. Its nakedness makes it easy to see that the end of the young man's penis is round; therefore, he was circumcised,

as we have already seen in the case of the fisherman. What is more interesting here is the object hanging from the drowned youth's chest. It appears to be a wing, and it is indeed the wing of an ostrich. At one end are the big feathers characteristic of this bird. Equally characteristic are two claws projecting on the opposite part; these also appear in other species of this family of birds.

Above this «winged» body is another one, whose hair ends in a crested perigramme. Happily, Herodotus says that both these features characterize a Libyan clan inhabiting the shore. Its name is given in Greek as Makai (Μάκαι). They are the Mashuasha or Mashasha of the Egyptian sources. They were warlike people and invaders of Egypt; they were a real plague. The Egyptians, therefore, sometimes used them as mercenaries. Herodotus, as if he had our Miniature Fresco before his eves, further describes the Makai as having a «crested» hair-style, because they used to cut their hair short on both sides of the head leaving only the top hair to grow. Further, he relates that they fought covered with «skins» of ostriches. How and Wells observe that the actual Tuaregs still wear their hair in a crest, shaving the sides of the head. This is just what the classical Greeks used to do with the crests of their helmets. while their sides were shining bronze. One wonders how Aristophanes (Ranae 821) imagined Aeschylos as wearing an αὐτόχομος λοφιά, because this is simply the correct description of the headgear in question.

How and Wells also mention that the Makai used ostrich wings as shields, like the Asiatic Ethiopians, who according to the same Herodotus (VII, 71) used crane's wings. I have not been able to procure adequate pictures of Tuaregs, but the hairborne crest from other parts of Africa is very common (pl. 95b). We have now, after all this, the proper frame for the Phaistos Disk, the silver rhyton of Mycenae and some further works for which there is no place here. <sup>34</sup>

One more architectural feature of the «first town» may also be mentioned: just on the beach, above the stern of the third ship (lower right corner of colour pl. 7), one wall of a building has been preserved. It shows, projecting horizontally from its façade, pointed objects. They could hardly be anything else but the projecting ends of wooden beams ( $\pi\rho\delta\chi\nu\mu\alpha$  in Greek). Such beams or thick planks are indeed necessary in buildings made wholy of clay. This system still exists today in clay buildings in North Africa and in the region of the Niger. A poor photo, which I happen to have at my disposal (pl. 111) is given here for comparison.

Upon the preserved surface of the miniature there appear some 80 human beings. They show, as is only natural, a great variety of

headgear, slightly differing between them. It is not possible to treat them separately. We note only that the presence of people with erected hair on end is common. A single keras (a lock almost straight on the top of the head) seems to have been the Aegean seaman's fashion at that period (pl. 100). We see the same keras in the miniature of the «sacral groove» of Knossos (PM III, opp. p. 67) and it seems already to have existed in Troy.

Concerning the dress, common types are omitted and, of the rest, the most characteristic appear in plates 101, 98 and 99. The first is an enlargement of the gathering upon the hill. The main persons appear clad in large mantles enveloping the whole body and the hands. Other persons wear a similar but shorter kind of mantle, reaching only to the knees. Woven or embroidered borders decorate the mantles vertically and horizontally. The mantle is fastened around the neck with broad ribbons or baldricks. Apparently it is a woven piece of material but not similar to the type we know from Libyan people in Egyptian art. <sup>35</sup>

The second figure comes from the scene by the brook. Of the two persons represented one is sitting on a stone, the other is standing. The dresses are mantles of the type described above, but here the material is of  $\delta \acute{e} \rho \rho \iota \varsigma$ , that is fur. The ribbons fastening the furs over the shoulders are so stiff that they suggest that they are the feet of the animal's skin. The mantle of the standing person is apparently a  $\beta \alpha \acute{\iota} \tau \eta$ , i.e. composed of several skins. But the seated person seems to have a mantle which is all of one piece. Moreover, it is of significance that it is painted red.

There are many people who dressed in skins, <sup>36</sup> among them the Libyans. But of special interest is the fact that, according to the same Herodotus the Libyan women wore goatskins dyed red with madder. Madder gives the special tone of red which we call vermilion, and this up to our days is a very popular red in North Africa, as travellers inform us. This means that the seated figure on our fresco is a female (comp. the woman-shepherd col. pl. 7) and that the brook to all intents accompanies with its murmur the tender δαριστύς between young peasants. If so, we have before us an interesting psychological development in the soul of an artist of 1500 B.C. <sup>37</sup>

The question of the warships and of their crews is interesting and difficult at the same time. The completely preserved ship shows 21 visible rowers, that is 42 in all. Officially we do not have τεσσερακόντοροι in the classical navies, but the word at least exists. 38 It is clear that upon our fresco the ships do not seem capable of holding many more

persons. The classical trireme had ten warriors (ἐπιβάται). Under the awning of our ship we see nine persons with one (or two) sitting to the left beside his shield. If we suppose that the artist has neglected to paint two warriors in some of the benches, instead of the one we see now, then we should have 15 to 16 warriors in every ship. We should add the captain, helmsman, rowers, boatswain (κελευστής), first officer (πρωράτης), so that we should have about 60 persons in all. Aboard our ship we see 34 visible persons; with the addition of the 21 unseen rowers of the other side of the ship we reach 55 persons.

As the warriors we see having landed in the first town are 8 to 10, we are to understand that apparently only the  $i\pi l \beta \acute{\alpha} \tau \alpha l$  of one single ship had landed. The first of them (from the left) who would be the last ashore, is apparently the captain of the detachment. Indeed, he is the only one who wears a kind of radiant crest ending in little balls upon his helmet (pl. 97). We have nothing comparable from the Aegean, while in Africa such fashions survive until now (pl. 102a). The rest of the warriors wear helmets with crest only. Pl. 102b shows the best preserved warrior with his characteristic face vividly reminiscent of Mycenaean warriors of later date, represented in ivory reliefs. The black line on the jaw indicates a strap for fastening the helmet rather than cheek-piece, which is yet clear in other helmets.

The captain's shield shows an interesting, hitherto unknown detail: This is a semi-circular groove in the left (for the spectator) upper margin, serving for a better contact of the shield to the bearer's neck. The detail helps us to understand that the right arm of the warrior was thus more free to handle the spear or the sword, hence the shield was a little displaced to the warrior's left side. On the lower part of all the sword sheaths an object is attached. It consists of a bundle of three to five ribbons and it is so wanting in elegance and in regular form that it is impossible to take it as an embellishment, say a tassel. The object is otherwise known only from two seals and from one or two Cypromycenaean vases. We realize now that it is the oldest recorded opersonal bandages in any army. Indeed, the ribbons served to bandage wounds to avoid loss of much blood. Conspicuous as they were these objects exercised also a psychological influence upon the enemy as the mark of fighters not caring about possible wounds. 39

The next brief commentary concerns the ships. The following are the main observations: the largest ship upon the fresco measures 75 cm. but only 62 without the "bowsprit". This latter is an additional, thin wooden (?) spar, attached to the prow when necessary. It bears different

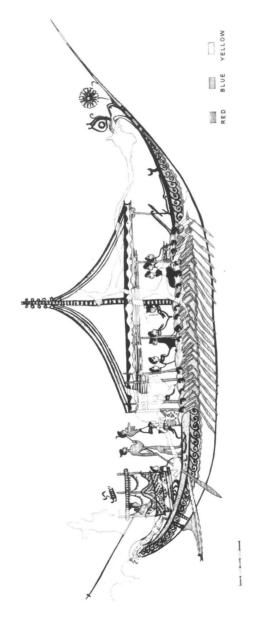


Fig. 5. Design of the best preserved ship.

symbols upon it, such as flowers, butterflies, swallows. Two hooks belong also to its accessories. It is a light and fragile object, apparently a device for the ship's festive decoration. <sup>40</sup> It can deceive as to the real height of the prow. Without it, the stern on our warships is slightly higher.

Only one ship has been entirely preserved. It is given here with all details, in a design by Mr. Eliakis (fig. 5 and verso of col. pl. 9). Length 0.50 m; and with the bowsprit 0.62m. The following are the most interesting details: The ikria on the stern have a peculiar form. The elaborate rods of which it consists have nothing to do with the curved frame, the  $\varkappa\alpha\nu$ - $\theta\dot{\gamma}\lambda\iota\alpha$ , of the classical  $\sigma\varkappa\gamma\nu\dot{\gamma}$  of the stern. As the walls of it are made of ox-hides, it can be understood as a stationary shield. The captain fights from within. Therefore, we see a great  $\xi\nu\sigma\tau\dot{\delta}\nu$  projecting towards the stern. Apparently the ikria were not roofed, hence we see the captain's helmet attached to one of the rods. However, this could be done also from the side openings, so that the roofing question remains open.

Out of the ikrion to the right, a seated figure is seen aboard all ships, therefore, it is a special place for a special person, a warrior, a servant or a ship's boy. The helmsman follows ( $\varkappa \upsilon \beta \varkappa \upsilon \gamma \dot{\eta} \tau \eta \varsigma$ ), erect in his proud and self-confident appearance, holding in both his hands a huge steering oar (pl. 100). A question arises here: all our ships, with the sole exception of the sailing ship, have a single steering oar. In my «La Marine Créto-Mycénienne» I accept one or two steering oars, <sup>41</sup> but the material adduced is not decisive. It seems now safer to say that no certain example of Aegean Bronze Age ship exists showing two steering oars.

Near the helmsman another man stands upright. His two hands are clasped in a special gesture, but one cannot see whether he is rubbing his palms or whether he is holding a special instrument. We attributed to him the office of κελευστής, the man who gives the rhythm to the rowers in προνεύειν and in ἀναπίπτειν. This same man was also called τριηραύλης, because he kept the rhythm with the music of his flute. Here, however, no pipe is seen and, moreover, two youths making the same gesture appear upon the «Gathering on the Hill» (left pl. 101).

About the warriors (ἐπιβάται) something has already been said. They are sitting under an awning, which is bitterly necessary when one is exposed to the sun of the Libyan Sea. The awnings seem to be self-supporting, but sometimes, as here, the roofs are strengthened by means of the lowered sail and yards. On the ship below we see that even the mast is superposed on the awning. When there was no awning at all (for instance in heavy seas), the mast was lowered deeper and it reposed upon the device called ἱστοδόκη by Homer. Upon our ship we

see this Y-shaped object in the prow. Owing to its slender dimensions it is to be imagined as made of bronze rather than of wood.

Our ship shows the mast raised, but there are no forestays or ἐπίτονοι. All ropes are κερουλκοὶ or κεραιοῦχοι (brailing ropes) which descend from the top of the mast. There, five pairs of rings are clear. They may be the καρχήσιον of Pindar. However, it is fairly clear that the artist did not possess exactly the use of the «ὅπλα νηῶν», that is forestays, haliards, brails and rigging in general, and this is the rule in similar cases. One may easily observe that here all ropes descend to the extremities of the yard. The two external haliards are painted thicker than the rest.

The two chief questions are the ram-like instrument of the ships and the riddle of the rowers. I have already published a brief note, as this was asked by authorities competent in the naval questions of Antiquity. 42 The first device, which is attached to the stern and well over the sea-surface, must be the instrument called δλκαῖον, a word which even the Ancients did not properly understand. They give merely the meaning extracted from the etymology, «something which is hauled». The words ἐφόλκιον (the little boat which is towed by a ship) and ἐφόλκαιον which erroneously is sometimes translated as «steering oar», have the same origin. From our ships it is clear that the object is composed of a bifurcated wooden shaft and of a massive piece, also of wood, fastened vertically to it. Its purpose was to give more support against the ship's walls. The whole was movable and, when necessary, it was fastened to the ship by two broad, chainlike belts made of rope or of leather.

It is almost certain that this device can only be an apobathra for landing. This was its main purpose; but, it seems, there was a secondary one; perhaps not belonging to the world's elegancies but otherwise necessary: every one who has read travellers reporting about sailing conditions in the 16th - 17th century, knows well the difficulties the passengers had for their daily toilette purposes. Reports ran that many passengers stripped themselves in order «to evacuate their bellies from the gunwale overboard». Even to-day the same conditions prevail among the crews of little vessels throughout the Aegean. 43 Now, as we know from lexicographers, the word apobathra was sometimes explained, besides its main meaning, also as λάσανα. This word means chamber-pot. We must conclude therefore that, at least for the officers of the ship, the δλααΐον served just as the ram-like samaina of the ivory ship from Sparta. Experts in naval architecture may judge better than I can do, whether or not the holkaion could help as a kind of stabilizer in rolling swell of the sea.

Concerning the rowers, the following facts are of paramount importance: 1) The rowers sit or rather are turned the wrong way, that is they face the prow. 2) They are leaning over the gunwale, so that their backs form a wavy line (fig. 6) over the ships side. 3) The oar consisting of the handle (ἐγχειρίδιον), the loom (οὐρίαχος) and the blade (ταρσός or πτερόν), we see here that the oars are very short, showing mainly only the lowest part, the tarsos. Under such conditions I can give no other explanation than that the rowers, perhaps owing to the shallow waters, abandoned the real rams and propel the ships with special short tarsoi. There is in Greek no special word for this kind of rowing which in English is called paddling. I should propose ταρσοπλοείν - ταρσοπλοία. The usual long oars appear only upon the upper ship of the sea-battle (col. pl. 7). Only there we see the uppermost part of the oars which, according to Hesychius was called έννήμον, because this part of the oar lies within the ship when rowing. The oars of our warships upon the fresco have no evynov.

Blazons were painted or applied on the sterns and even on the sides of the ships. Stern blazons in our ships are the lion and the hawk, while the side blazons are more numerous. Plates 102c, 92 and 103a show in enlargement a lion lying but roaring and a flying dove.

The total number of ships of the Miniature Fresco, little and great, was about two dozen, to judge by the missing parts of the North wall (the West wall being X). Nineteen of them are certain upon the frieze; of them all one is represented without oars and navigating only with the sail. It is very fragmentary, but happily we can reconstruct it with fair certainty. The ship is of middle dimensions (pl. 104 and, improved, colour pl. 9). It had the usual ikria of the stern; but instead of the awning

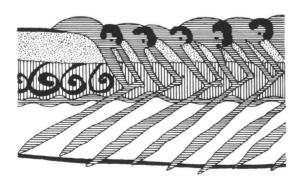


Fig. 6. Rowers of the fleet in design.

we see parapets to protect the sides. Three of the heads of the epibatai have been preserved. The rigging of the ship is happily enough clear. The mast is raised, but again we have no evidence for forestay or epitonoi or shrouds on each side from the mast to the gunwale. There are two haliards on each side of the mast, and two pairs of brailing ropes descend from each side of the mast, one to the upper and one to the lower yard. An hypera and a pous from the upper and the lower sailyards to the helmsman are sure on the right side; but the traces left on the fragment are enough to complete the left side of the sail in a similar way. This is the only ship, where we clearly have two steering oars (both on the right side of the ship?) and two helmsmen.

They are two fine mariners. They hold firmly the shafts of their long rudders; they stand with feet wide apart to steady themselves against the rolling swell of the sea; their bodies turn proudly forward and the attention of both is directed to the wind and to the sail, the ropes of which end between their feet, so that they are able to fulfill every necessary manoeuvre. They wear the Minoan loin cloth.

That this ship was especially made for ταχυναυτεῖν and that it was indeed an exceptionally fast boat, is shown by its symbol: along its whole length there are painted doves flying high among the clouds, which are also represented. It may be that this was a deeply rooted symbol, which left its trace in the mythological tradition: had a real dove passed through the Symplegades, — which, after all, would not be difficult for a fast bird — or was it a speedy boat just as our «Πέλεια»? For, this ship with its blazons, reminds us at the same time of the Argo and its famous adventures in the Bronze Age period, and of the renowned Flying Cloud, which glorified another heroic period of naval history, the period of the clippers.

The third and last town, at which the fleet arrives in triumph, creates serious new problems. With it ends the South wall of the room. But there exists the possibility that the painting of town and anything else continued further on the lost West wall. Generally speaking, the landscape does not differ much from the landscape of the previous two towns. However, to the left the rocks descend down to the sea more compact and more polychrome, reminding us vaguely of the landscape of the Spring Fresco. The country continues to be hilly to the right, but the town is built low, just on the shore.

In two parts of the town appear quite clearly the horns of consecration, the symbols of Minoan religion and of Minoan rulers. One is at the right extremity of the town, where a great ashlar masonry wall,

probably a part of the city-wall, is crowned by at least two pairs of great double horns. Beyond them some plants are discernible (pl. 103b). To the left extremity of the walls, just above the little harbour, we again have horns of consecration. They stand on a balcony-like projection of one of the towers (pl. 105).

This must be an important part of the whole town. Upon the tower we see a lady, accompanied by a little boy. She raises her hand as a sign of triumphal greeting. She seems to be the most or, at least, one of the most distinguished ladies of the town. While the rest of the built parts of the town seem to consist of walls and towers, there is only a great building, just near the two places decorated with double horns, which has the character of a conspicuous construction. It has three rows of discs in its walls (indicating beam-ends), which stress its prominence.

Now arises the main problem: are we before a Minoan town somewhere in the Aegean? Or are we still in Libva? Besides the Minoan characteristics (to which the long procession of youths may be added) there are others, which are clearly un-Minoan. The slits in the walls could be explained as belonging not to houses, but to towers. However, it is more difficult to explain the mantle-clad and the furbearing σισυρνοδύται as citizens of a Minoan town. The great lady of pl. 105 has besides her a child, with hair crested and on end, according to the Libyan fashion. The faces of the women do not show the delicate features of Minoan ladies, but this is perhaps no racial argument: it is rather artistic. Indeed, the brush of the artist who finished this portion of the fresco was too thick to trace the wonderfully fine perigramms we see elsewhere. This is why the profiles here appear clumsy and the eyebrows thick. The boats seen within the anchorage do not differ from the Libyan ones, but may be equally Minoan; this form of boats lasts down to the latest period of the Antiquity, for instance upon the column of Trajan or upon Roman frescoes. Lastly, a fisherman who climbs up the path from the harbour to the town, the ἀνάφορον (pole) with the fish-basket upon the shoulder, seems also to have a crested hair. One must wonder whether we are in a Minoan town strongly influenced by Libyan elements or rather in a Libyan, but strongly minoanized «tower-settlement» somewhere along the Libyan shores.

The anthropological types upon the Miniature Fresco open another field of investigation. The characteristic types are collected in pl. 106. The upper row shows the spectators of the second town. We see several types of skulls including brachycephalic. The hair is always short. In the middle row we have collected all the types of the ὑπηρεσία, that

is the professional mariners of the crews. As we suppose, they must be all Aegeans. The lowest row presents characteristic Libyan types. One such type (represented several times) appears enlarged upon pl. 107. He is one of the  $\dot{\epsilon}\pi\iota\beta\acute{\alpha}\tau\alpha\iota$ , that is the fighters who travel under the shade of the awnings. Over his head we see his helmet, which is of simplified Amyntorian type. On his chest one can see the thick knot of his mantle. The hair is crested. But the most prominent characteristic is his upturned nose. This must have been (and perhaps is still) the special feature of a negroid Libyan stock. Evans had obtained in 1894 in Messara (Southern Crete) a little head of tridacna shell. Believing that it was dated to the Greek period, he did not publish it until his PM II (p. 46, fig. 21a-b) appeared. There, correctly as I believe, he has recognized it as Minoan in date and as representing a Libyan. It bears the same «snub-nose», as Evans calls it.

The most interesting face of the fresco is incontestably the captain of the «ship in colours». He is apparently at the same time the admiral of the whole fleet. As the bedroom of the West House was painted eight times with the ikria from where, perhaps, he had directed the whole adventure, we have to conclude that this house was his home in Thera. As the enlarged photo in pl. 108 shows, he is a young man with prominent, straight nose, short beard and medium length hair. The hair covers the head down the neck and lets a central lock fall over his forhead. We know well this hair style as Minoan and Mycenaean. <sup>44</sup> We have here before us a genuine Mycenaean or, perhaps more correctly, an Aegean warrior. Happily, we possess a contemporaneous and very close parallel. It is the wonderful gem from shaft grave B III in Mycenae, which is surely the best existing portrait of the Creto-Mycenaean period (pl. 109).

However, here begin the doubts and the questions, which are still difficult to answer. In fact every thing shows that the Libyan expedition has quite a friendly character. A «town», rather a hamlet and possibly a mere shepherd's station is attacked. Some «bad Libyans» perished, probably because they annoyed friendly towns. The rest of the circumstances show an extremely cordial connection between Libyans and Aegeans. The expedition is manned with «colonial troops» of Libyans or perhaps rather Aegeo-Libyans, of which only the officers are Mycenaeans.

It seems clear that we have already to do with well organized settlements in Libya, in which a mixed population lived. We do not use the word «colonies», because this is different in nature. For the moment we still have only very rare archaeological indications about such connections, and not so early in date. Only a seal from Tokra and a Minoan sherd from Kyrene offer such indications and need, of course, be no more than proof of trade. It is our fresco which for the first time opens the way to conclude about much broader and older connections between Libya and the Aegean. Most important is that these connections, which appear already established by the middle of the sixteenth century B.C. seem to be friendly and to be based upon a mutual collaboration. Thus a new chapter opens in the history of the Aegean and especially for that of Libya. It is also interesting that what we learn about Libya from the Theran fresco is quite different from what we know about the same land from Egyptian sources. The Egyptians knew the Libyans as official persons visiting them or as soldiers, prisoners and enemies. Here we have the Libyans in every-day life with their settlements, their jobs, their families and their dressings.

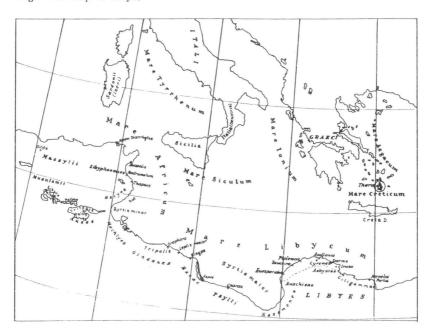
The greatest interest centers around the third "town". Is it in Libya or in the Aegean? In the latter case we would have almost certainly to imagine it as being in Thera. If we prefer the second opinion, then we have to accept the most intimate connections between Thera and Libya. We must advance further and accept that in this case Libyan elements existed on the island. Libyan worthies played an important role among the Therans and, apparently, among the Aegean society in general. We must still take as probable a mixing of Aegean with Libyan blood. What are the two wonderful young fishermen? Are they inhabitants of Thera, as seems almost sure, or are they young Libyans? There are still more artistic works of the same kind.

Already in 1968, when a painted head was found in Thera, I have indicated that the find was even anthropologically interesting. I did not hesitate to attribute it to an «African», while at the same time this man belonged to a fresco showing on the one side a Minoan rural sanctuary and on the other side palms and monkeys. I had put at once the question: an African landscape or «a prince or a prominent citizen of the island, but of foreign origin?». <sup>45</sup> I had further mentioned such facts stored among the treasures of the oldest traditions of Greek folk-memory, which we call saga. In particular Danaos, a king of Argos, originated in «Egypt», which means Africa.

Now the spade yields more material pointing in the same direction: is the island of Thera the center or rather one of the centers of close interconnections with Libya? Are these phenomena the result of the climatological conditions which react always in the same manner? Prominent scholars like Professor F. Schachermeyr pointed out that maritime intercourse between the Aegean and Libya is more easy than with Syria or Egypt. Are we now justified in attributing a historical kernel to the curious episode of the legend of the Argonauts, according to which Thera was born from a lump of Libyan earth? We have to remember that the saga of the Argonauts is Minyan and the Theraeans even in the historical period claimed Minyan descent; and last but not least: why the God in Delphoi and the Theraeans collaborated to colonize just Kyrene? Could it be a repetition imposed by the power of the tradition?

For the moment we have only the few archaeological clues mentioned above. But the «Libya Fresco» of Thera indicates that a broader archaeological investigation at selected points on the Libyan coast is promising. It seems to me that the place, where the subtropical landscape of the Fresco merges into a Mediterranean one can or perhaps must be the plateau of Kyrenaica. Somewhere to the West of it we could imagine the scene of our fresco. Perhaps there, where Herodotus localizes the Máxaı (see the map fig. 7); or somewhere in the vicinity,

Fig. 7. A map of Libya.



where little streams to day (but more important in Antiquity) are indicated upon the maps. Just a little to the West was the district and the river of Kinyps. Its miraculous fertility was praised by Herodotus as well as by later writers. A little further West in the district of Minor Syrtis, lay Tritonis, which is intimately connected with goddesses and gods of the Greeks. Future investigation along these shores may reveal the material necessary to testify about the historicity of the Libya Fresco of Thera. <sup>46</sup>

## NOTES

1. Professor Sp. Iakovidis and Dr. Th. Spyropoulos participated during most of the season. Dr. J. Koumanoudes was our architect, Mr. K. Eliakis our painter. The rest of the scientific staff were the MA archaeologists N. Ghioles, M. Petropoulos, Ch. Varitou, P. Preka, P. Kitsou. Miss Ch. Kontomichalou acted as book-keeper. For some weeks we were helped by the foreign students A. Bennett, H. Butler, I. Elliot, H. Kharas and Ahmed Etman. Mr. G. Konstantopoulos of the National Museum of Athens helped us for some time as photographer. The technical staff for the frescoes stand under T. Margaritof and S. Perrakis with their assistants. Chief mender was A. Marinis and John Karamitros was our able foreman.

Professors and several other scholars as visitors were too numerous to be mentioned here. Of special importance was the visit of a group of the Bulgarian Academie of Sciences and of the University of Sofia. Their visit was of great value for mutual understanding concerning various archaeological questions.

- 2. Thera I, 1967, p. 53, fig. 82.
- 3. Thera V, 1971, p. 26.
- 4. Thera V, 1971, colour pl. E H.
- 5. The interior of the wall is given in the design Thera IV, 1970, p. 23.
- 6. Thera IV, 1970, p. 24 and pl. 40.
- 7. Thera V, 1971, pp. 9-10, fig. 1 and pl. 3-4a.
- 8. Thera II, 1968, pl. 32. Ergon 1968, p. 86, fig. 91.
- 9. Thera III, 1969, pl. 4.
- 10. Thera V, 1971, pl. 86b.
- 11. Thera V, 1971, pl. 21a and 23.
- 12. Comp. a similar case in Thera V, 1971, pl. 29.
- 13. Thera V, 1971, colour pl. J and here colour pl. 5.
- 14. Thera V, 1971, col. pl. C.
- 15. Thera V, 1971, pl. 24b.
- 16. Today these minerals exist in the Athinios district on the precipices of the caldera. The Minoans, of course, could not have penetrated to these depths. We are thus left to suppose that the minerals in questions existed somewhere near the surface of the pre-explosion island. With the increasing actual working of the volcanic ashes of Santorin, which tends to spoil the landscape severely, perhaps such mines will appear one day. However, it should be preferable to take measures for the protection of the unique beauty of the island.
- 17. In Akrotiri it is very rare to find traces of firewood or carbonized wood in general. As was the case in Oriental cultures or among Pueblos, pots were fired, and even bread was baked through burning animal dung as fuel. From the Holy Scriptures we learn that even human excrements (dried of course) were used for baking due to scarcity of firewood. In modern Thera, for the same reason, donkey's dung  $(\varkappa \alpha \nu \theta t \delta \epsilon_s)$  is the ancient Greek name) was collected and stored as fuel till recent times. This was apparently the stored "chopped straw" reported by the French excavators in Akrotiri more than a century ago. Indeed, donkey's dung when dried gives the impression of finely chopped straw.

- 18. Thera IV, 1970, pp. 18 19.
- 19. Thera IV, 1970, pl. 75.
- 20. Thera IV, 1970, pls. 45 and 85.
- 21. For details see Thera V, 1971, pl. 27 and p. 19.
- 22. See among others on ikria, Morrison-Williams, Greek Oared Ships, pp. 47-49. Etymologically stamin means «upright standing» and epengenis, possibly with ἀγκόνες connected (Frisk, Griech. Etymol. Wörterbuch), means in any case something horizontal.
  - 23. Thera V, 1971, p. 19 and pl. 26.

24. See about qarnata in general the exhaustive investigation of Prof. F. Schachbrmeyr, Hethiter und Achaeer, pp. 144-156.

- 25. Owing to similarities in the markings of scombers and cod-fish we thought at first that we had there either scombers or motelle, which, according to some scholars, was the  $\dot{\alpha}\phi\dot{\nu}\eta$  of the Ancients. Happily, last October, Italian deep-sea fishermen, distressed by heavy seas, fled to our little anchorage near the excavation at Akrotiri. The guardians there helped and supplied them with good drinkable water from our rain-water reservoirs. Reciprocating the kindness, the Italians presented the guardians with some fish. To my real joy, I recognized among them the typical mackerel held by the second fisherman from the West House, while the larger \*\*\times\times\times\chi\eta
  - 26. Thera IV, 1970, col. pl. E.
- 27. The picture was taken from K. Stendahl, Great Religions, which is a luxuriously illustrated report in the series of the National Geographic Magazine 1971, p. 246. To the courtesy of Prof. L. Balout I owe a phototype of the paper of A. Laugel et Ph. Margais, Les coiffures à Tindouf, Sahara Occidental, in Travaux de l'Institut de Recherches Sahariens de l'Université d'Alger, t. XII (1954), p. 113-121. The paper contains interesting material on African hairdressing of both-sexes. This material is precious for Thera but, unfortunately, the pictures cannot be reproduced from the phototype.
- 28. R. Sparks and G. Walker, The Ground Surge deposit: A Third Type of Pyroclastic Rock. Nature Physical Science, vol. 241 no 107 (15 Jan. 1973), p. 62-64 (or 1-7 of the off-print).
- 29. This kind of helmet, which, it is now clear, constitutes the oldest form of Mycenaean helmet, was protected externally by rows of boar's tusks. They are described by a lot of different expressions or they are called emeriones helmets. I propose the above term, which is in conformity with tradition and indicates better their traditional form. Indeed, according to the famous passage in the Iliad (K 261 270), this heirloom was a real archaeological object for Homeric heroes. It was stolen by Autolykos, who for this purpose had opened a hole in the house of Amyntor of Eleon (in Phocis). This means that this very helmet had already a panhellenic reputation. Autolykos presented the stolen treasure to a certain Amphidamas of Kythera. First Generation. Amphidamas gave it as a guest-gift to Molos, the father of Meriones; Molos of course corresponds to Laertes, father of Odysseus, and to Antikleia, mother of Odysseus and daughter of Autolykos. Second generation.

Molos gave it to his son, Meriones, contemporary to Odysseus on the occasion of the Trojan Expedition; and this is the third generation.

- 30. Our picture shows a building of the 18th century made of raw bricks, as it exists today in Bahrain, an island on the Arabian shores of the Persian Gulf (Archaeology 26, Jan. 1973, p. 21). It is interesting that in Akrotiri we have a similar arrangement with the gate compartment (πυλών) projecting into the Triangle Square.
- 31. See K. Lehmann-Hartleben, Die Trajansäule, 1926, Tafel 5. Our figure is from Ion Miklea, La Colonne, 1972, p. 12.
  - 32. Thera IV, 1970, col. pls. A C.
- 33. Herodotus, after exposing some preliminary facts about Kambyses and about the colonisation of Kyrene, begins his fine description of Libva (IV, 168 f.) The commentary on Herodotus by How and Wells (1912, reprinted 1928 and 1936) is a considerable help to the text of the Father of History. Little has been written about Libya which could help us here, and of this nothing is to be found in the libraries of Athens. The best comprehensive work is still that of R. Neu-MANN, Nordafrika nach Herodot, Leipzig 1892, I wish to thank from this place Prof. P. Amandry, Director of the French Archaeological School at Athens, who procured this book for me for some days from the University Library of Strassbourg. Maned sheep in Egypt: Erman-Ranke, Aegypten etc., p. 273. It is a special characteristic of primitive races of sheep that they have wool mixed with hard hair. To this class belongs the «mountain sheep» and the «Berbery sheep». Ammotragus Lervia, which still lives on the mountains of North Africa. Akin is the Ovis musimen, commonly mouflon, which lives on the mountains of Sardenia and Corsica, but is smaller in size. The Ammotragus, which still appears in the desert, is a big sheep up to 90 cm. high. The male has crest, thick mane of wool hanging from its chest and pointed horns bent to the rear. This description (taken from the Encyclopedia Americana s.v. Aoudad) corresponds, as one may see, exactly to the sheep of the Miniature Fresco. The species is today called Berbery sheep, maned sheep, aoudad and arui. It is also represented upon a few seals of Minoan Crete.
- 34. See Herod. IV 175 and the commentary of How and Wells, I, p. 358. Concerning the Phaistos Disc there are perhaps a dozen signs which can be attributed to Libya, such as people wearing ear-rings, kestos of pugilists, horned sheep, furs, perhaps even the ostrich wing (sign 44). Characteristically, the lynx-eyed Evans recognized the human beings of the Disc as non-Minoan and non-Hittite (PM I, 654). About the claw or claws of the ostrich wings, Prof. B. Kiortsis had the kindness to write to me and say that the spine or nail in question is characteristic not only of the African-Asian ostrich but of several other primitive birds, for instance, the Emu of Australia. The crests of pl. 95 are from: Sylvia Leith-Ross, African Women (Faber & Faber, no date), opposite p. 192 and Grosvenor, Brown and others, Nomads of the World (National Georgaphic Magazine 1971, p. 126).
- 35. For instance Erman-Ranke, Aegypten etc., p. 35, fig. 7 and p. 244. There the mantles are more abundantly embroidered, open before the chest, and the hands are free.
  - 36. Herod. VII 71. Compare VII 67, IV 64 and 109.
  - 37. See Herod. IV 189. How and Wells observe on this passage of Herodo-

tus that, as travellers report, skin dresses are usual even today among the clans of Sahara. They mention further the special preference of these people for the vermilion shade of red (I, p. 364-5).

- 38. Especially in schol. to Aelian: ἡ τριαχόντορος καὶ τεσσεροχόντορος λέγεται κατὰ τὸ πλῆθος τῶν κωπῶν. See RE Suppl. V, art Seewesen, p. 935 (Miltner).
- 39. The clue to understand the objects in question is afforded by Apollonius of Rhodes, who was more a scholar than a poet. Archaeologising and composing verses at the same time, according to the spirit of his times, he described (Argon. B 1039) how Eribotes, as a παρεδριόων (comrad-rower), bandaged the wound of Oileus: He took from his swordsheath «a hanging ribbon» τελαμῶνα κατήορον. Κατήορος is the «hanging down» while on the other hand, τελαμών means a ribbon either of leather or of linen for bandaging wounds (Liddell). On the contrary, the τελαμὼν (baldrik) of the sword or of the shield was called ἀναφορεύς.
- 40. See AAA VI, 1973, p. 289f. This device corresponds to the ship's epitheton τανύπρωρος, which, however, is late.
  - 41. BCH 57, 1933, p. 200.
- 42. AAA VI fasc. 2, p. 289 292 with colour plate II (of the entirely preserved ship) and a figure of the shipwrecks. The opportunity is taken to correct three lapses in this article: p. 290 read «two millenia» instead of «three millenia», p. 292, read «τεσσεραχόντορος» instead of «τεσσαραχοντήρης» and further down «faces towards the prow» instead of «faces towards the stern».
- 43. This is why a generation ago I explained a man on the «samaina» of the ivory ship FORTHAIA from Sparta as using this protruding part of the prow as toilette. I see now that Morrison and Williams explain also this sailor as «relieving himself».
- 44. See Sp. Marinatos, Minoische Porträts, Festschrift Wegner, 1962, pp. 9-12 and figs. 1-2.
  - 45. An African in Thera? AAA II, 1969, p. 374 f.
- 46. About Minoan-Mycenaean remains in Kyrene see the long and well documented paper of Sandro Stucchi, Prime Tracce Tardominoiche a Cirene, I. Rapporti della Libya con il Mondo Egeo, Quaderni di Archeologia della Libia No 5, 1966, pp. 1-27. Concerning the historicity of the Libya fresco, a parallel and contemporaneous historical episode, though quite different in nature, would be Queen Hatsepsut's expedition to the land of Punt. It would be premature to try here to compare the Libya Fresco and the Aegean fleet to the Vikings, their ships and their activities. Both periods, however, present parallel features, which are rare in World History.

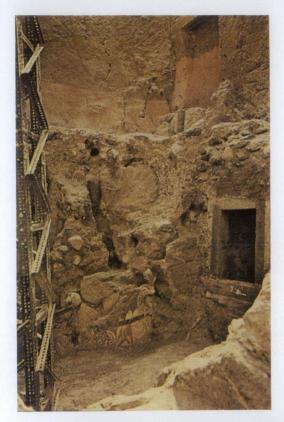


## PLATES

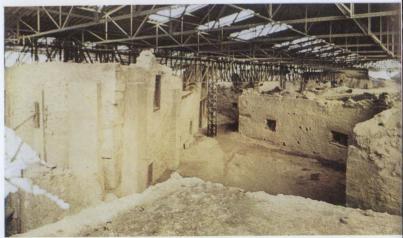




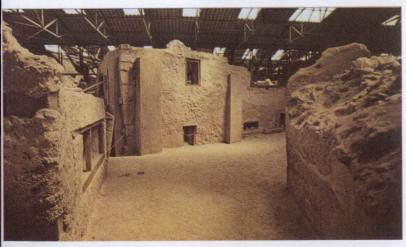
A panoramic view of the excavation from the West: The sheds covering the ruins. Right, the staff's building and little Museum. Beyond it the roof of the guests house is distinguishable.



Above: two views of the bathroom of the West House during the excavation. Below, left: West House, Triangular square and a part of sector Δ. Right: the West House and, to the left of it, the «House of the Anchor».

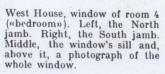










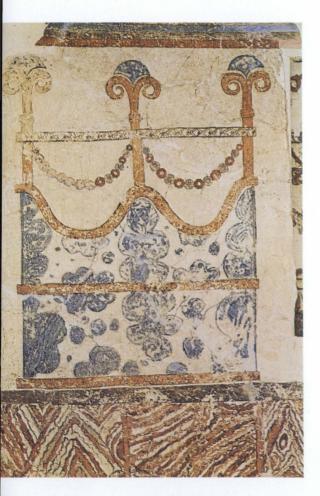




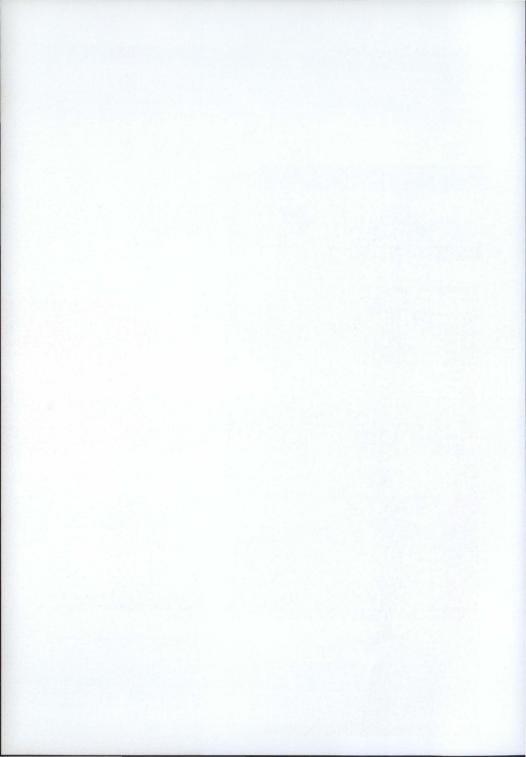








West House, room 4 ("bedroom"). Three of the painted ikria (ship's stern-cabins).



West House, room 4. The «Young Priestess». Left, the South jamb of the room's window restored.







West House, room 5 Left, the Fisher of the SW corner. Right, the Fisher of the NE corner.







West House, room 5. The Miniature Frieze, north wall. Left, gathering on a steep hill. Right, sea-battle, sheep fold and landing of troops.

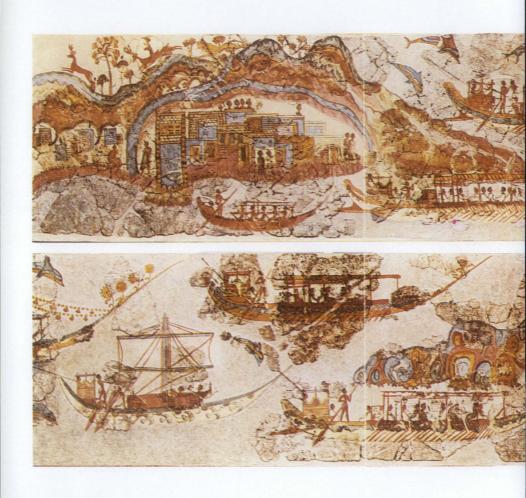




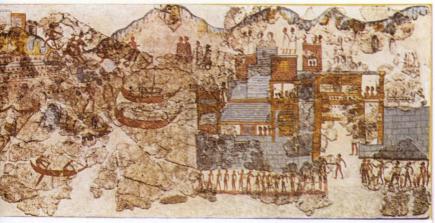


West House, room 5, East wall. Subtropical landscape with stream, palms, fauna and a flying griffin.

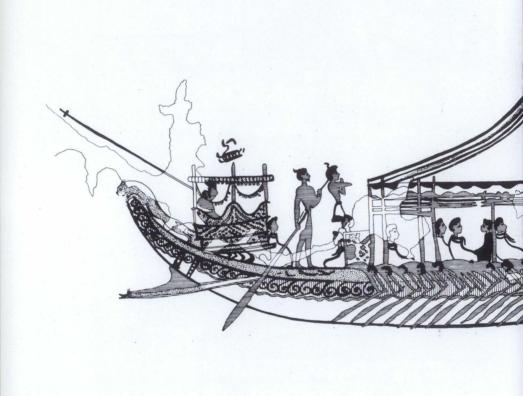








West House, room 5, South wall. Above, town 2 and warships, among them the flagship. Below, the rest of the fleet and town 3. Overleaf, design of the best preserved ship.













Stone lamp and pottery, mainly from the West house.



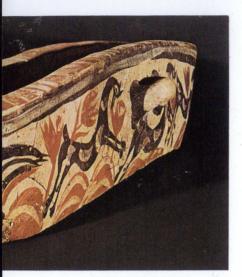








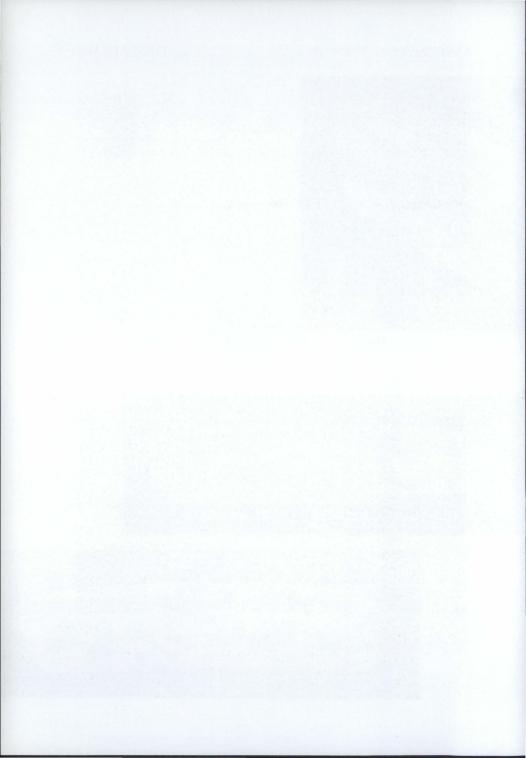




Two polychrom vases (kymbai) painted in local style.









a. Stone quarries in the ravine East of the excavation.



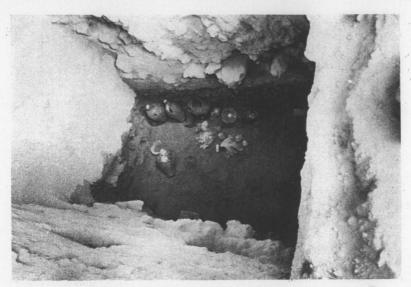
b. Staircase in the House of the Ladies.



a. Stone vase as found in Room 6 of the Ladies' House.



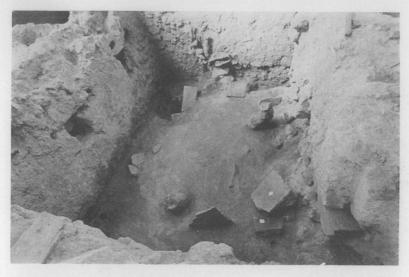
b. The interior of the stone vase.



a. Basement floor of Room 6 of the Ladies' House as seen from above.



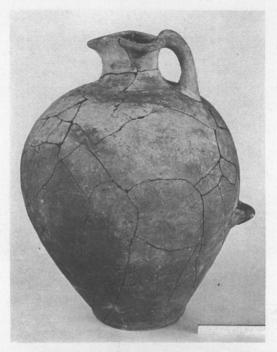
b. First traces of pottery on the upper storey-floor of Room 7 of the Ladies' House.



a. Upper storey-floor of Room 7 and cupboards on the West wall.



b. Slabs of the upper storey-floor of Room 7 still in situ.



a. A big ewer of Room 7 which was full of lime.



b. The lime as extracted from the ewer.



a. The North-West corner of Room 7 with a nest of rhyta, flowerpots, jugs and other vases on the storey-floor.



b. The same nest of vases and, above it, the cupboard of the West wall full of rhyta and flowerpots.



a. Pottery in the North-West corner of the basement-floor of Room 7 and above them the vases in the same corner of the storey-floor.



b. Two Triton-shells in the filling between the two floors of Room 7.



a. Basement-floor of Room 7: Eastern wall.



b. Basement-floor of Room 7: NE. corner.



Basement-floor of Room 7: West wall.



a. Basement-floor of Room 7 from the East, together with part of the upper storey and the cupboards of the West wall.



b. Room of the Spring Fresco ( $\Delta 2$ ): right, «court», window and niche of  $\Delta 2$ ; center, sill of the South window.



a. The sill of the South window with a jug upon it.



b. The window as reconstructed with the superposed wall-fragment intact in place.



a. Window of the Spring Fresco room ( $\Delta 2$ ) with a jug upon its sill.



b. The jug in question and incised sign upon it.



c. Imported and finely painted jug within the cupboard of the Spring Fresco room.



d. The Minoan jug in question finely painted in red, brown and white.



a. The North wall of  $\Delta 2$ .



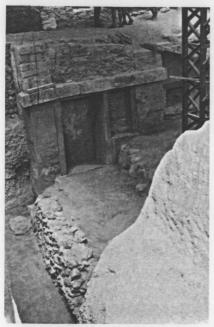
b. The slab-covered floor of storey-room  $\Delta 9\alpha.$ 



a. Left, the NW. corner of Xesté 2; right, the Southern end of the denticulated wall.



b. Eastern side of sector  $\Delta$ .



a. Retaining wall before the North wall of Xesté 2 from the East.



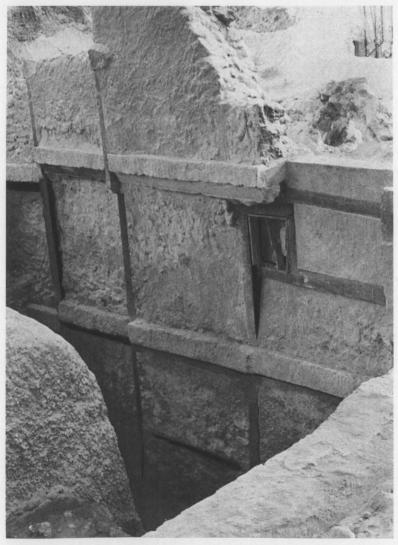
b. Retaining wall and steps from the South-East.



c. North wall of Xesté 2 from the SW.



North wall of Xesté 2 with three stories preserved.



North wall of Xesté 2. Basement and two stories, separated by stone geisa.



 Store room of Xesté 2 discovered during the opening of Well 39.



a. A window of Xesté 2.



Detailed photo of the storeroom of Well 39 within Xesté 2.



a. Xesté 4 from the West. The NW. corner of the building appears low on the photo.



b. The North wall of Xesté 4 from the West.



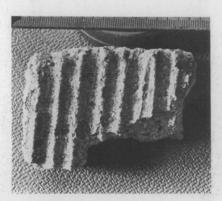
The North wall of Xesté 4 from the East.



a. Xesté 4, North wall from the East.



b. Well 42 within Xesté 4. A jar, badly broken, but in position.



c. Xesté 4. Plaster fluted from reed impressions.



d. Granite boulder about 1,10 m. in diameter found within the aspa-layer near Well 48.



a. Wall of a «corridor» painted with mountain peaks.



b. Frugal trees, growing on the sides of the rocky peaks.



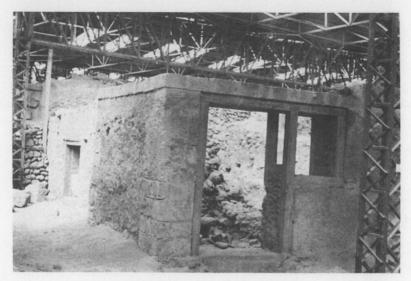
a. The Telchines Road from the North-West. The projecting room in the middle is the Millhouse ( $\Delta$  15).



b. Well 48. Reeds on the West wall of a room.



c. A large fallen fragment of painting (1,50 m. long).



a. The Millhouse ( $\Delta$  15) from the South.



b. The interior of the Millhouse.



a. The measuring-bowls found in the Millhouse.



b. The Triangle from the North: center, the Pylon; right, the first traces of the House of the Anchor.



a. The North corner of the House of the Anchor.



b. First traces of the House of the Anchor and schist plates fallen before it.



a. North corner and window of the House of the Anchor.

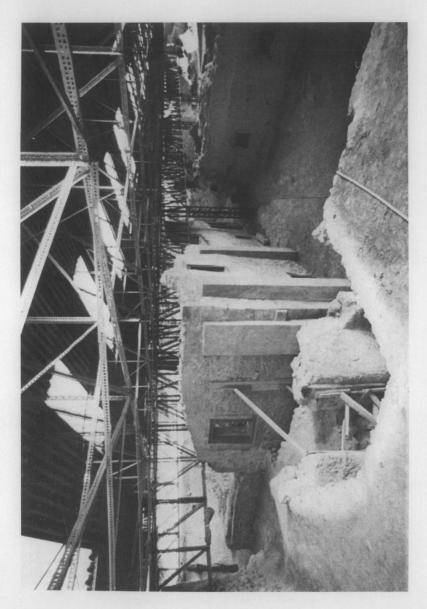


b. A window, a door and a corridor (?) of the House.





A stone anchor found in the Triangle Square.



The Triangle from the South-West. Left, the West House; right, sector Δ. Between them the Telchines Road.



a. The door and parathyris of the West House and a broad window in the upper storey.



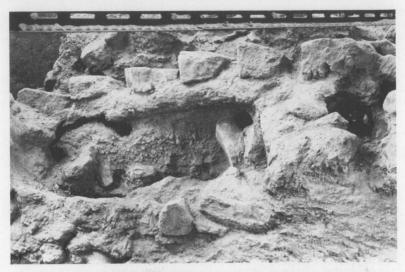
b. The area in front of the North wall of Room 5 of the West House, showing the artificial floor with no traces of layer of catastrophe.



a. West House, stone-filled foundations (to the left of the wall).



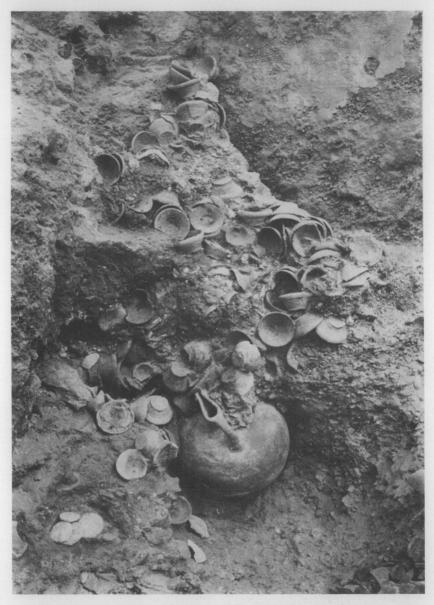
b. The West wall of the West House (left) showing the «Window of the Lilies» of the «Room of the Cabins» no 4.



a. West House. Eastern staircase as found. (From the East.)



b. West House, Room 6. The South-East corner.



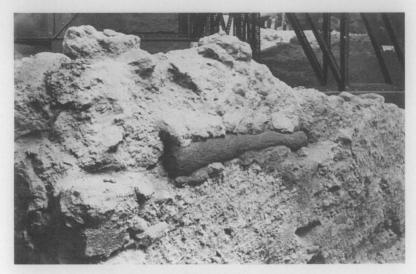
More than one hundred handleless cups on the North-Eastern corner of Room 6.



a. South wall of the West House from the inner side.



b. Pottery along the East wall of Room 6.



a. North wall of the West House from the inner side.



b. Fragment of a roof or upper floor fallen upon the North wall.



a. Cupboards under the fallen roof.



b. Pottery in the cupboards under the fallen roof.



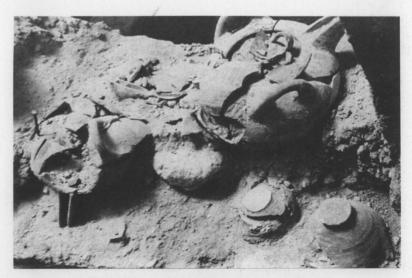
a. Uppermost North-West corner of Room 5.



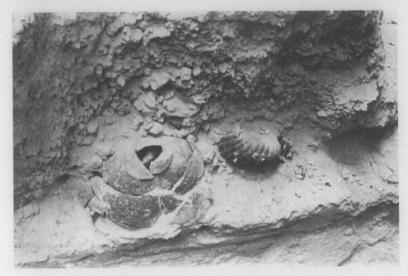
b. North-West side and floor of Room 5.



a. The four windows of Room 5.



b. Pottery upon the sill of window 1 of Room 5.



a. Pottery upon the sill of window 2 of Room 5.



b. Foot of a table of offerings upon the sill of window 4 of Room 5.



 Plaster moulds of wooden rods employed for the construction of the floors.



b. Plaster mould of a plank in Room 5.



c. The plank while removed.



d. Sunken slabs along the East wall of Room 5.



a. The first fragment of the Miniature-Fresco, found before the North wall of Room 5.



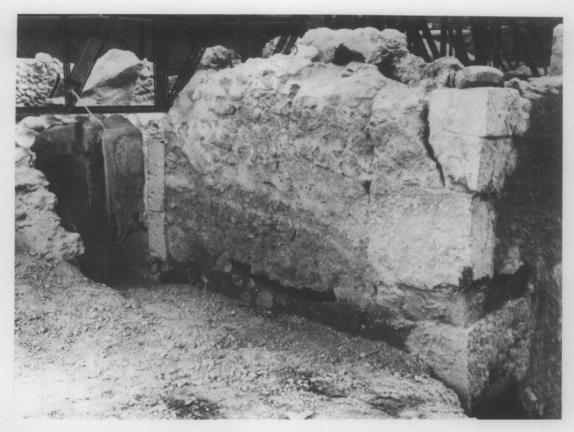
b. The North-Eastern corner of Room 5 with the Fisherman as found. (The upper half was already covered with gauge for protection purposes.)



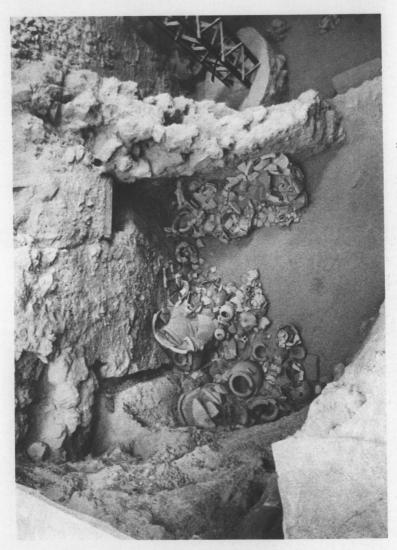
a. Pottery stored on basement floor of Room 5.



b. The basement-floor of Room 5.



The South-West corner of the West House from the West. The West window of the «Bedroom» and its painted North jamb are distinguishable.



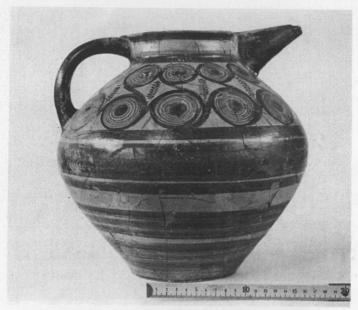
Rooms 5 (left) and 4 (right) with the separating wall.



a. The wall between Rooms 4 and 5. One can distinguish a door (or cupboard) clay jamb and fragments of wall paintings.



b. Fragments of an imported Minoan vase. South-East corner of Room 5.



a. The vase reconstructed from the sherds of pl. 46b.



b. The window of Room 4 with vases upon its sill.



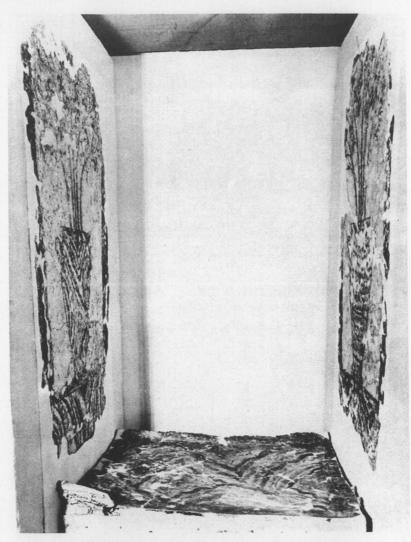
The sill of the window of Room 4 («bedroom»).



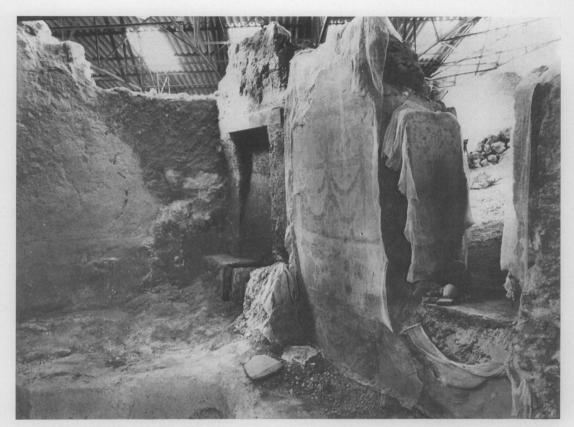
The South jamb of the window.



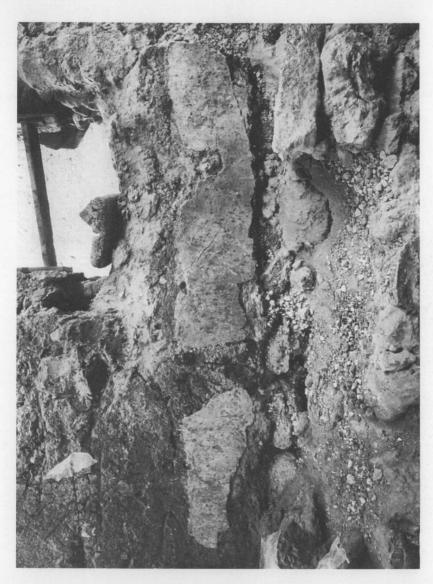
The North jamb of the window.



The bedroom's window as reconstructed (viewed from within).



The South-West corner of Room 4 from within. From right to left: the window, a painted ship's ikrion and the niche of the bathroom.



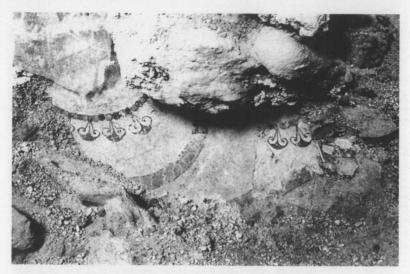
Older wall painting beneath the ikrion-fresco.



a. Fresco fragments belonging to ikria.



b. Big fragments of the ikria-fresco as they had slipped down to the basement.



a. Big fragments of the fresco on the West extremity of the wall dividing Room 4 from Room 5.



b. The niche of the bathroom  $4\alpha$ .



The ikrion near the window as restored in Athens.



Two ikria from the bathroom-wall.



a. The floor of the bathroom from the North.



b. Bathroom, two jars containing plaster ready to be used.



a. The two plaster containing jars of the bathroom.



b. The two pebbles of the bathroom, used for grinding the colour.



 Bathroom, a bowl containing red pigment.



 Foot-print of an animal upon the red pigment.



a. Fragments of the asaminthos (bathtube) belonging to the bathroom.



b. The West wall of the West House: a slab over the bathroom's pit.



a. Oblique and perpendicular slabs of the pit.



b. West House. Details of the bathroom's pit from the South.



a. The SW. corner of the West House. Cellar, basement and upper storey.



b. West House, Bronze tripod as it slipped from the bathroom towards the basement.



a. West House. The bronze tripod of the bathroom.



b. Cellar: two clay cooking pots with traces of smelting lead ores.



a. Cellar: a bowl with traces of smelting.



b. Cellar: cooking pots, grinding pebbles and stone hammers.



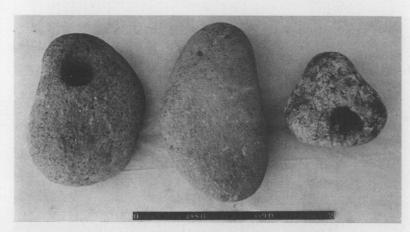
a. Cellar: a stone mortar.



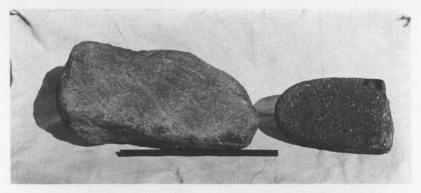
b. Cellar: grinding pebbles and hammers.



a. Cellar: hammers and tools for grinding.



b. Cellar: pebbles of unknown use.



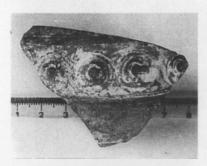
a. Cellar: ore fragment (?) and grinding pebble.



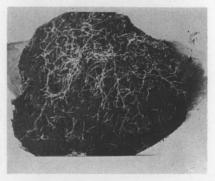
b. Middle Cycladic and Middle Minoan pottery from  $\Delta 16$ .



c. Well 39, the pluged jug.



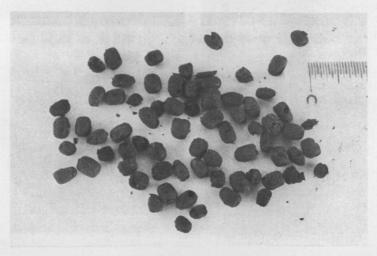
Anchor House.



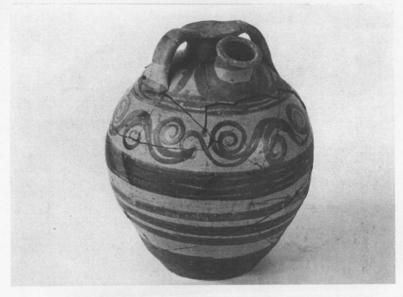
d. A Middle Minoan sherd from the e. Rooted seeds inside the pluged jug.



a. Imprints of the seeds in the interior of the pluged jug.



b. Seeds from the pluged jug.



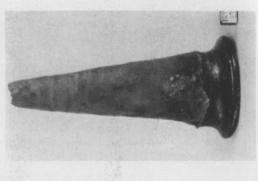


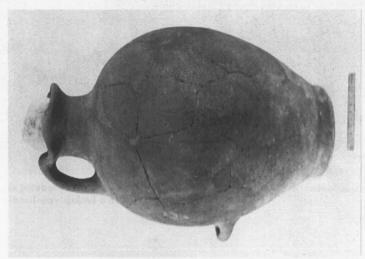
Stirrup-vase with white colour in the interior.











b. A vase corked with a white pebble.



a. A jug corked with a pebble.



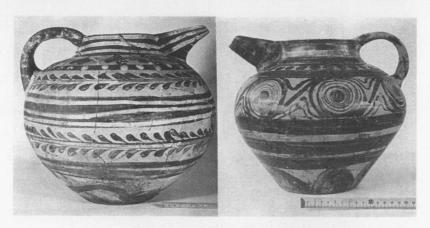
a. A jug corked with a stone disc.



b. The spout of a bridge-spouted skyphos corked with a broken vase-handle.



c. Pluged vases.



a. Two jugs: left, local; right, imported.



b. Local pottery: left, a strainer; right, a spouted skyphos.



a. Local pottery: left, jug with swallows; right, a vase in form of cuppingglass.

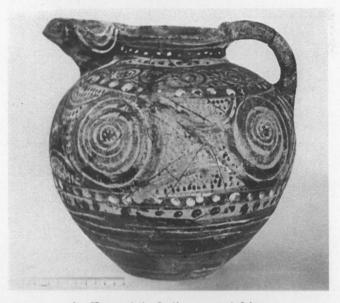


b. Local pottery: a jug with broad lips. c. House of the Ladies: jar with lid.





a. House of the Ladies: a spouted jug.



b. House of the Ladies: a spouted jug.



a. House of the Ladies: a spouted jug.



b. A jug with circled motives and lilies. Well 23.



a. A deep plate. Well 23.



b. Strainer found in Well 23.



A bird's nest vase of black steatite.
 Room of the Fisherman.



a. The vases found upon the sill of the Bedroom's window.



b. Imported, broadmouthed jug. Room of the Fisherman.



a. A little eyed jug, Room of the Fisherman.



b. Two spouted skyphoi. Room of the Fisherman.



c. Askos and alabastron, both imported. Room of the Fisherman.



House of the Ladies: a polychrome kymbe with land and sea fauna and flora.





Room of the Fisherman: a kymbe of similar character to that of pl. 80.





Side views of the two kymbai.



a. A stone horn of consecration.



b. A stone base of a double axe.



c. A matrix of schist-stone. West House.



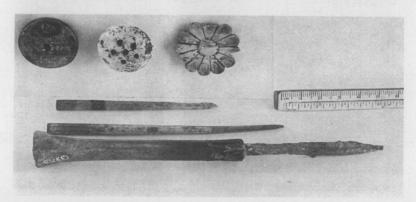
d. Lead weights. West House.



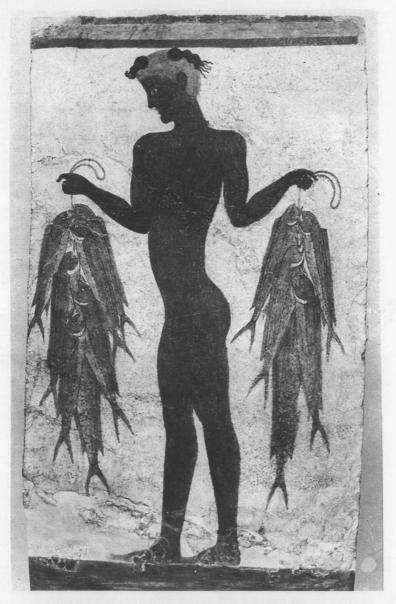
a. Stone lamp of veined marble-like stone. West House.



b. A bone borer.



c. A bronze borer with bone handle. Objects of ivory and bone.



Fisherman no 1, NE. corner of Room 5, West House.



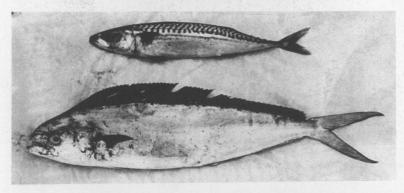
a. The upper part (rear side) of the clay-slab, still covered by the mortar of the Fisherman's Fresco.



b. The clay-slab (rear side) of the Fisherman's Fresco; its upper part shows the one long side with the superposed mortar of the fresco.



a. The Fisherman's pudenda, detail.



b. Scomber and coryphaena of the Aegean sea.



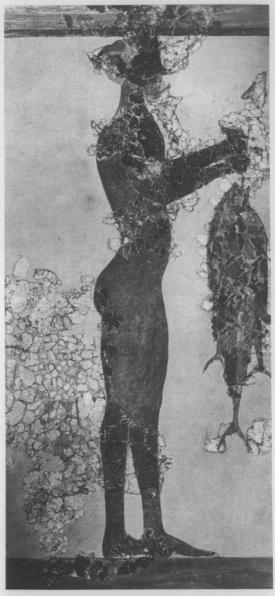
The Fisherman's head.



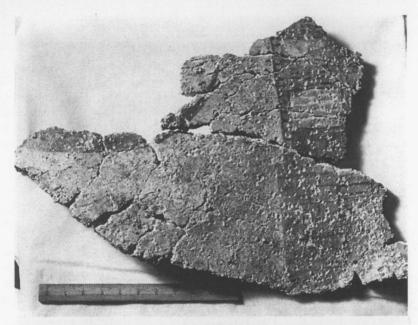
a. A school in the Atar-oasis, Mauritania.



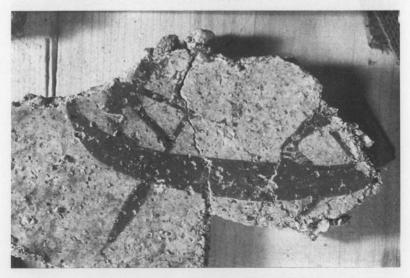
b. A graffito to the fisherman's right side: a fish caught in the fishing line.



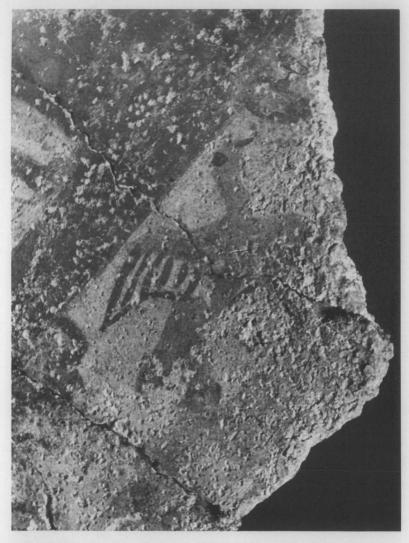
Fisherman no 2, SW. corner of Room 5.



a. The Westernmost part of the Miniature Fresco as bombarded by volcanic sand.



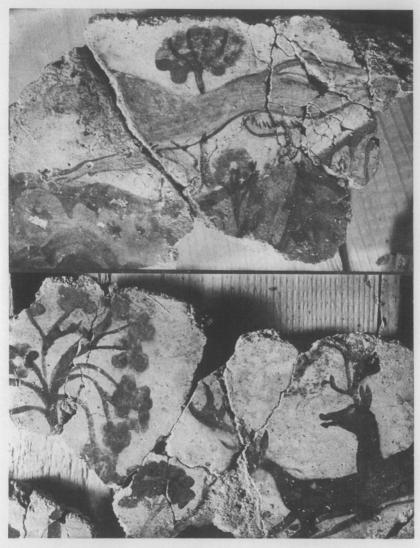
b. A boat in the anchorage of the third town.



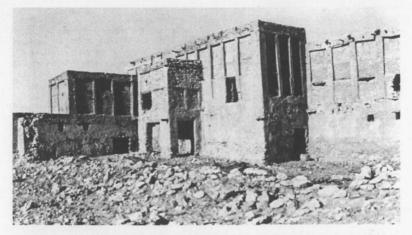
The «Peleia», the only sailing ship of the squadron, as bombarded by volcanic sand.



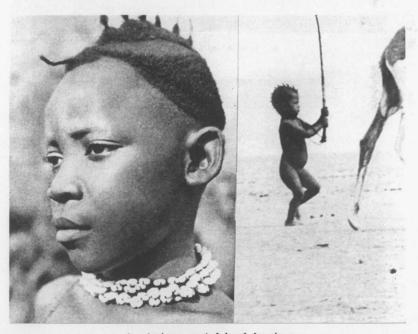
A drowned warrior with an ostrich wing fastened upon his breast.



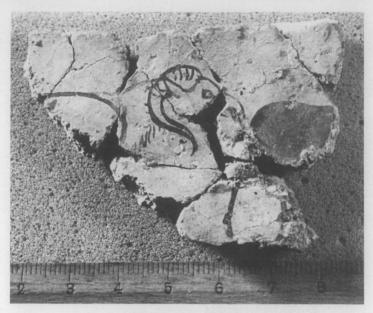
The landscape of the Miniature Fresco: a lion pursuing a herd of stags.



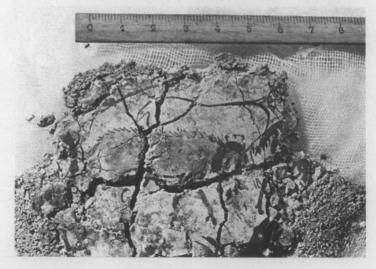
a. A building of the 18th century A.D. in Bahrain (Persian Gulf).



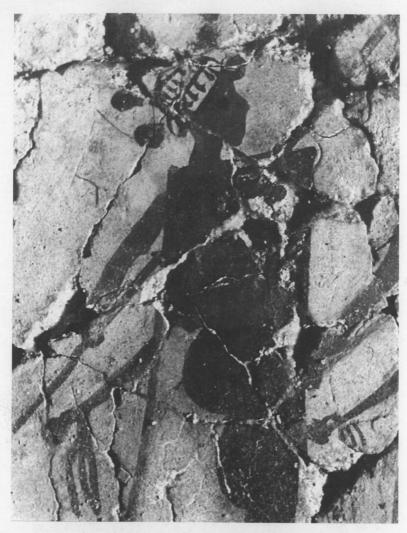
b. Atrican crested head-dressings.



a. Woolled ram, first town.



b. Maned sheep, first town.



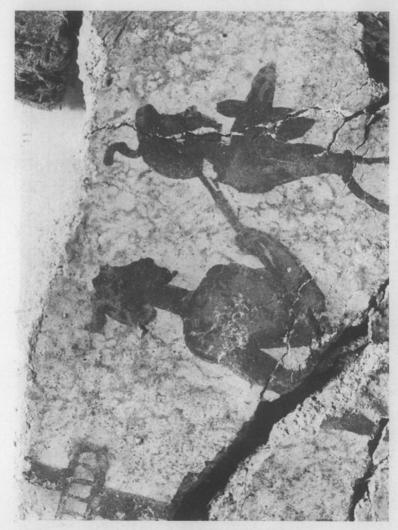
The captain of the landing detachment.



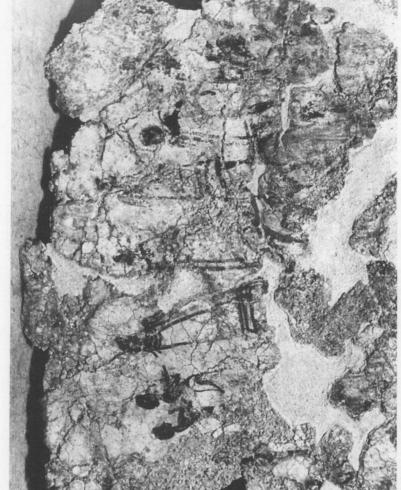
«Scene on the brook». Two fur-clad persons.



«Scene on the brook».



The helmsman and the commanding officer of the rowers.



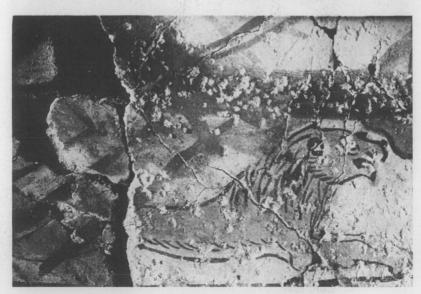
«Gathering on the hill».



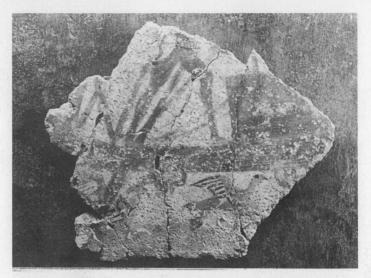
a. Hair dressing, Sudan.



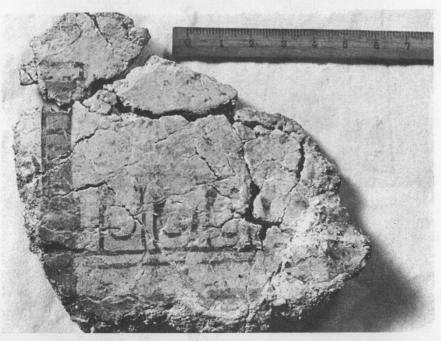
b. A warrior.



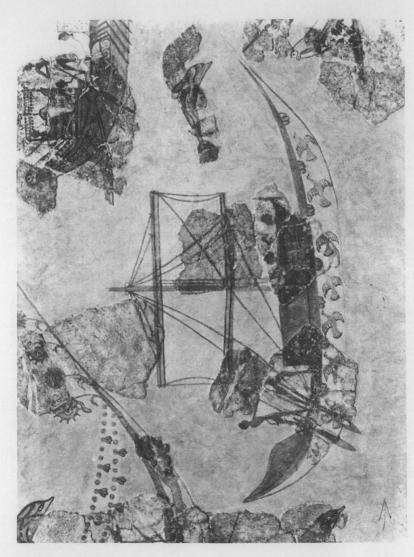
c. Lion painted or applied upon a ship as symbol.



a. Dove painted as a symbol on the sailing ship.



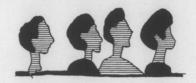
b. Third town. An isodomic wall crowned by double horns.



A swifty ship of the fleet. (Better reconstruction in col. pl. 9.)



Third town. A lady greeting from a tower crowned by horns of consecration.







Anthropological types of the Miniature Fresco.



A Libyan with «snub-nose».

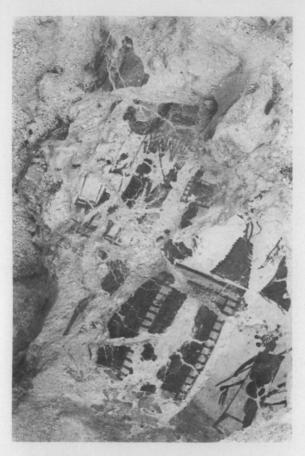


The admiral of the fleet and owner of the West House.

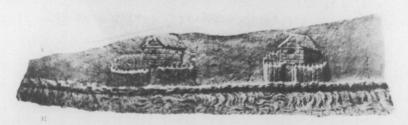




Gem with portrait of a Mycenaean, Tomb B III, Mycenae.



a. Fragment of the «first town» as it was found.

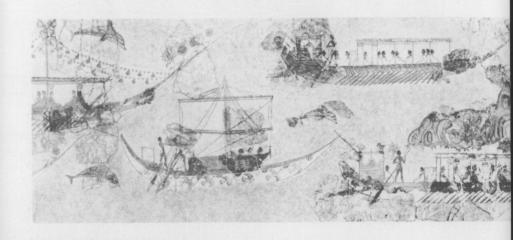


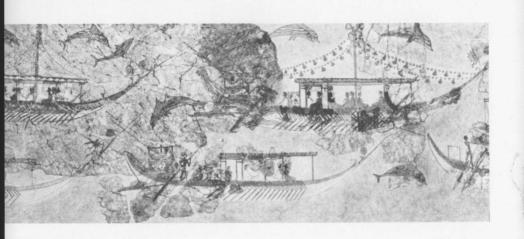
b. Watching towers along the banks of Danube (Column of Trajan).

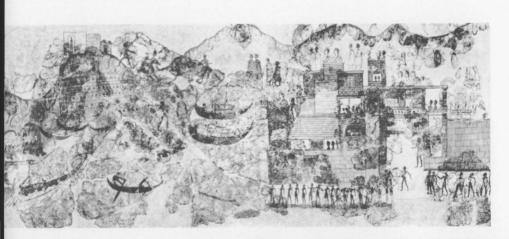


Clay buildings with projecting wooden beams (in Greek πρόχυμα). Nigeria.

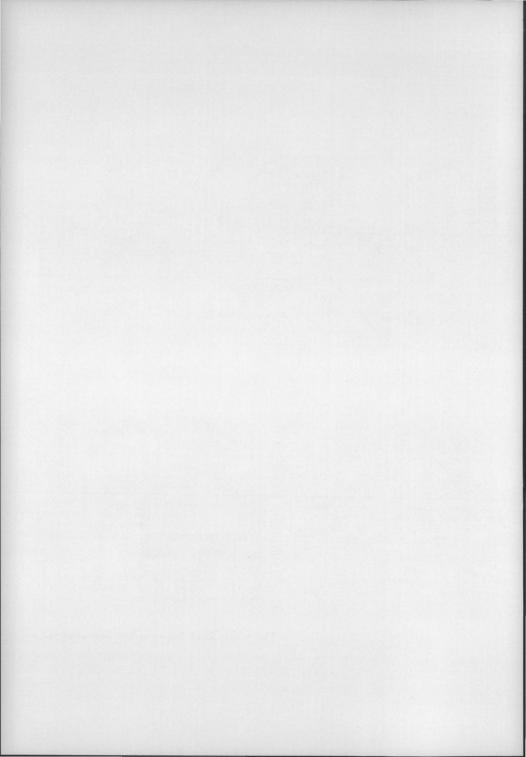




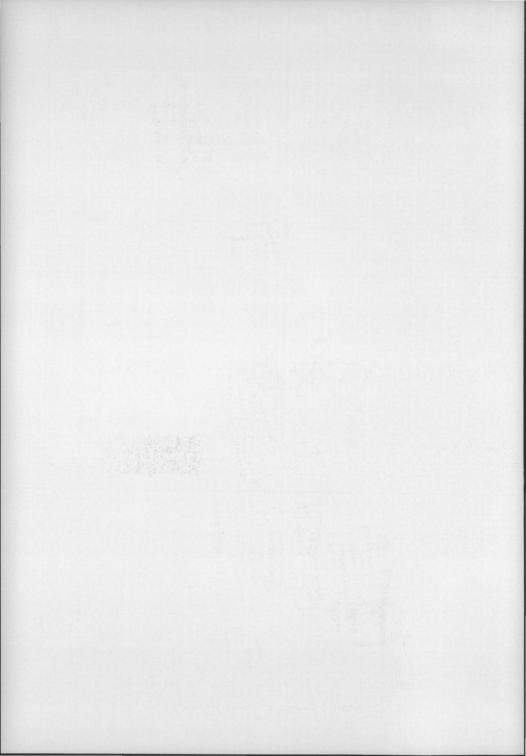


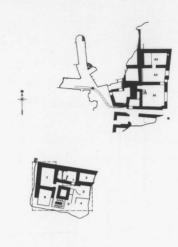


The whole fleet between the two «towns».



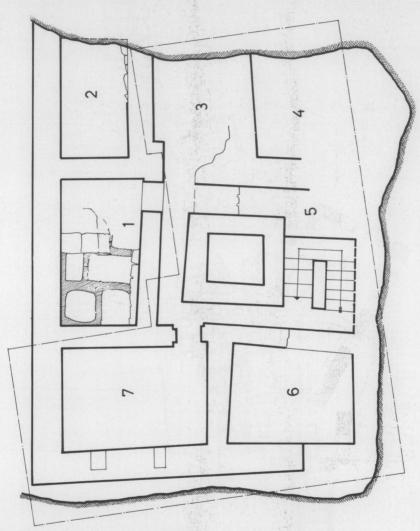




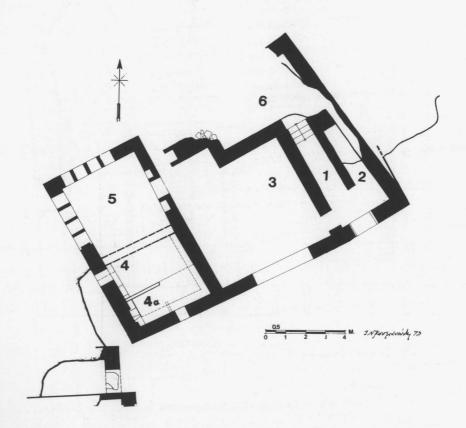




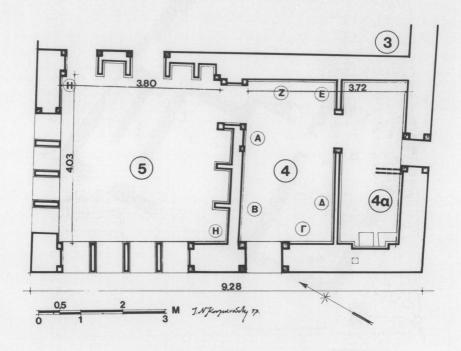
General diagram of the excavation.



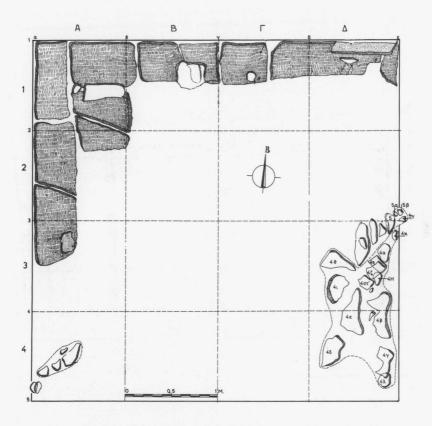
The Ladies House (detail)



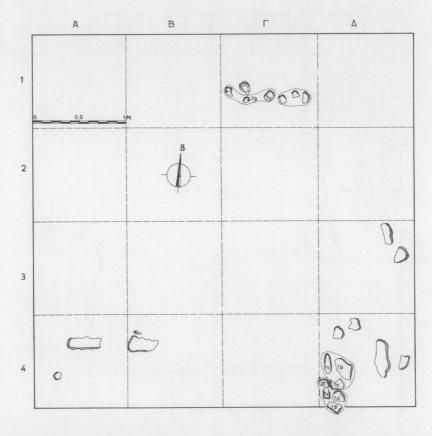
The West House.



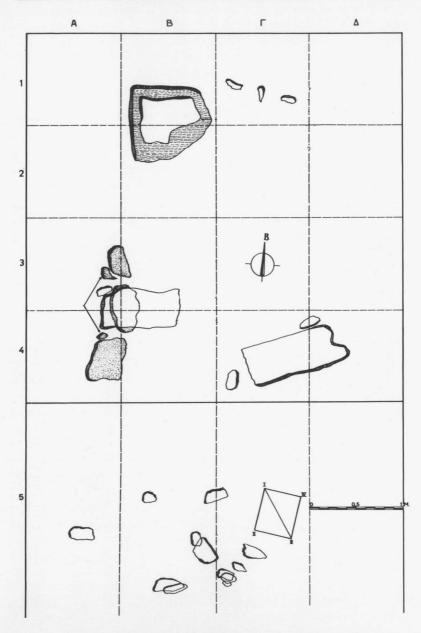
The West House (rooms 4,  $4\alpha$  and 5).



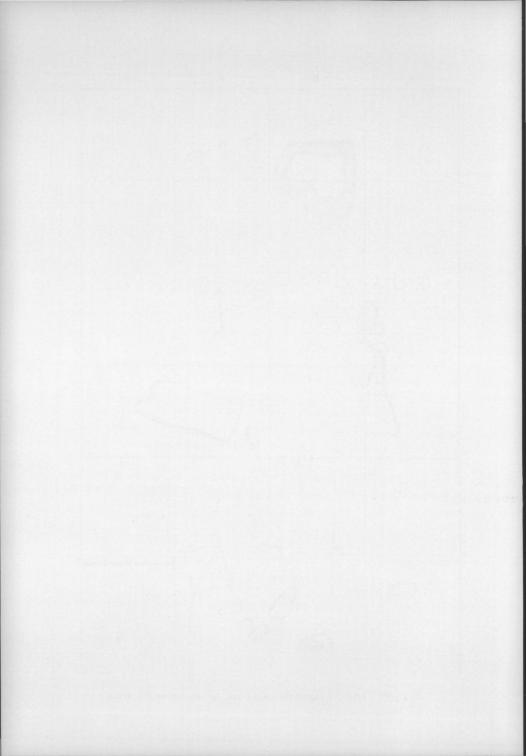
Miniature Fresco. Diagram of the uppermost fragments as found.



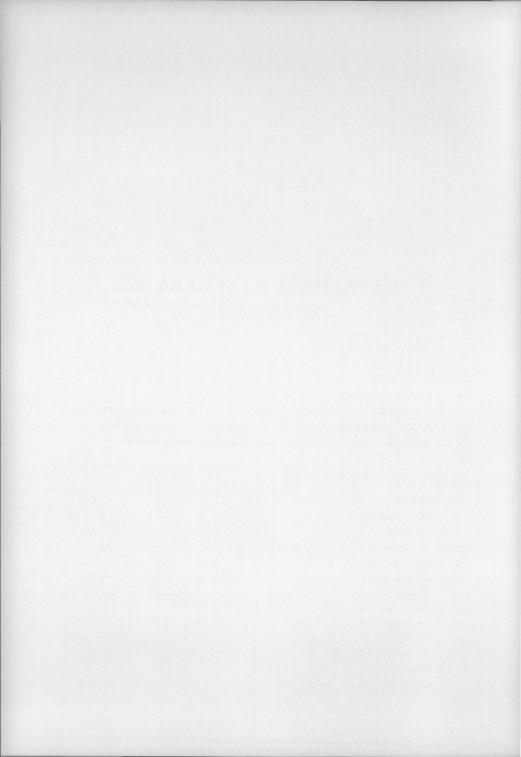
Miniature Fresco. Fragments found 0,40 cm. to 1m. below the floor.



Miniature Fresco. Fragments found 1m. to 3m. below the floor.



## EXCAVATIONS AT THERA VII 1973 SEASON



## EXCAVATIONS AT THERA VII

(1973 Season)

GENERALITIES

The 1973 period of excavations, officially begun on July 24, actually started about a month earlier with work on the laboratories and staff premises.

These were enlarged and rearranged with a view to meet the additional requirements of the excavation, which has already assumed extraordinary extent and importance. Preliminary work was also carried out for the removal of earth fillings in the area of Xesté 4. All operations were supervised by the new Epimelete, Mr. E. Andreou, the successor of Mr. Chr. Doumas, who had been promoted to the office of Ephor of Antiquities and transferred to Rhodes.

The scientific and technical staff of the excavation was composed as follows: Professor Sp. Iakovidis participated in the excavation. Mr. N. Kavoulakos, engineer of the Restoration Service, came on several occasions and offered his usual thorough and valuable assistance. Mr. J. Koumanoudis was again the architect of the excavation. The philologists Miss K. Preka (afterwards Epimelete of Antiquities) and Miss Chr. Varitou contributed their already experienced assistance. They were further aided over a few weeks period by Miss K. Galatsanou (of the University of Pennsylvania) and Miss N. Marinatou (of the University of Colorado). The technical staff was composed of the dexterous and helpful Mr. A. Margaritof, of Mr. St. Perrakis, Mr. and Mrs. St. Papageorgiou, and Mr. D. Spathoulas with their assistants. The painter Mr. K. Iliakis worked as before for the treatment of frescoes. The group of menders was headed by Mr. Tr. Kontogeorgis. Mr. J. Nikolouzos, chief technician of the Restoration Service, worked with us for a short time. The whole team of workmen and professionals was supervised by our competent foreman, Mr. J. Karamitros, and by the mason Mr. P. Christou.

Foreign observers, antiquarians and specialists in various fields

were too numerous to be mentioned here by name. We shall mention only the professors who attended works for a few days. Professor J. Shaw (of the University of Toronto, an expert on Minoan architecture) and Mrs. Shaw came on August 20. Professor and Mrs. Garassanin (of Belgrade) arrived on the 29th, and Professor E. Risch (of Zurich) with a small group of his students on the 31st. Professor and Mrs. W. Noll came on 1st September. Professor Noll has been offering his valuable help in the field of ancient techniques. Finally, Professor Fol (Director of the Thracological Institute of the Academy of Sophia) accompanied by his wife, and the geologist Mr. Puchelt (of Freiburg) arrived on 15th October.

TECHNICAL AND METHODOLOGICAL PROBLEMS Only a close observation of our eight-year long efforts to excavate the prehistoric city of Thera would allow one to realize why this task would have been impossible without the development of new methods. It would also explain

why after so many years the excavation is still almost entirely restricted to the upper storeys — we have been able to reach the basement only at a few points. A hastier procedure would have caused great damage and would have gravely endangered the lives of those working in the excavation.

As it is impossible to expose here in detail the problems involved, we shall just mention the principal one: Owing to the sinking of the earth at the moment of the devastating catastrophe, particularly in the South area, practically every building has deviated from the vertical. Moreover, the existence of beam holes, door and window openings and wall gaps have occasionally produced dramatic conditions for the progress of the excavation. Consequently, the following method has been gradually developed: The upper parts of walls — at the height of the second or third storey — which lean too much away from the vertical are first redressed. Wall gaps are rebuilt and openings left by the disintegrated wooden jambs and other wooden parts are filled with reinforced concrete. Excavation work is resumed on the building after the longest possible period of time. Plates 1 - 2 serve to illustrate the above - mentioned problems.

Further problems are encountered wherever floor remains are preserved, for we have always avoided at all costs the destruction of a preserved floor of an upper storey. Weather conditions present another major problem: heavy rains are not uncommon after mid – August.

According to the system adopted from the very beginning of the excavation, the greatest possible number of finds are left intact in situ. Perhaps the most pressing problem, therefore, is the timely protection of the ruins with sheds, since a rainfall might have disastrous results. We are grateful to the Dexion Company and the chief engineer Mr. Dakopoulos for the comprehension shown in this respect. Once, in 1971, rain caught us unawares on the scaffolds. Yet, damage was avoided by the provisional construction of sheds with tin sheets and Hellenit tiles.

A few words are necessary on the method of keeping the excavation journal and cataloguing the antiquities. During ordinary excavations finds are rather few, so that it is quite possible to mention them — if not record them properly — in the excavation journal. In the course of this particular excavation, however, there have been occasions when no less than 200 or 300 vases were discovered in a single room. Furthermore, the mender and his team represent a sort of natural, even though unwitting, enemy to excavators. Despite all conscientious precautions, the labels recording the origin of sherds may get misplaced or mixed up during washing, or — even worse — may be wrongly replaced on the restored pottery.

For this reason, at least two of the most experienced and able scientific assistants have been placed in the mending laboratory, where they act as supervisors and catalogue on the spot every restored vase or other cleaned find. Over a number of years I was considering the problem of devising a method whereby, upon discovery, every antiquity would be immediately assigned a number which would remain on it throughout the cleaning operations. I repeatedly corresponded on this subject with a friend in England, a specialist, who supplied us with numbers of various materials and systems. But the problem persisted by reason of the all-dissolving power of the hydrochloric acid, in which finds are washed. Finally, I solved the problem with the help of the chief conservator, Mr. A. Margaritof, who had been working to this effect in collaboration with various firms. We manufactured numbers of nylon, which is totally resistent to both water and hydrochloric acid. Each number (pl. 3a) consists of two white sheets of nylon and a third black sheet in between. Numerical figures are scratched on one of the outer white sheets, and the appearing black number, being also of nylon, remains imperishable. Numbers are ordered directly from the firm and are delivered in lots of 100 pieces (pl. 3a).

Upon discovery of a vase or other object intended for removal

to the laboratories, we attach its number on the handle, neck, or any other part where it can be secured. Attachment is effected by means of thin wire of pure copper, which is equally resistent to acids. Each supervisor of the excavation always carries with him a «number - recording book», i.e. a small bound journal with numbered pages. Next to the number it is possible to note down much more than may be contained in one of the ordinary labels. We are thus able to record at once any antiquity discovered. From then on the number remains constantly attached to the find during washing, drying and mending, and is removed only after the antiquity has been entered into the Museum Inventory. If restoration of the object is anticipated through discovery of further sherds, the number is not removed from the find and may remain attached to it for many years. The whole procedure is illustrated in pl. 3b, which shows the number labels, attaching wire, «number - recording book», and an incomplete vase awaiting the eventual discovery of missing fragments.

Labels are indispensable in every excavation. They are attached not only to antiquities, but also to boxes or trays containing various finds including frescoes. Such containers have been often stored for one hundred or more years in museum storerooms, with their labels (if in legible condition) as the only means of identification. In this respect, therefore, we believe that we have succeeded in devising perhaps an almost perfect system.

As is known, transparent nylon can be half-melted and welded at a temperature of about 60° C. Following our instructions, Mr. Margaritof supplied us with an electric appliance which prepares in a matter of seconds rectangular nylon envelopes in a variety of sizes, using nylon sheets (or rather cylinders) obtainable on the market in rolls. Into these envelopes are placed labels cut out of thin carton with the help of photographers' shears. These nylon envelopes are indestructible by insects, humidity or dust. Practically they last forever. Plates 4a and 4b present the electrical appliance and label-containing envelopes respectively. In exceptional instances (e.g. in the case of fresco fragments which may be re-examined by a scholar after a hundred year's time) the label is written and enclosed in the envelope, which is then airtightly sealed by the machine. Such a label is seen in pl. 3b.

The laboratories of the excavation were enlarged and rationally rearranged. Above the menders' laboratory, a low storey was added to accommodate the staff. It has special quarters for the night - watchman equipped with a watch - tower and search - light. It may also

accommodate up to ten members of the scientific staff, in view of the fact that there exists no other possibility of accommodation. Pl. 5a shows this compound (above right) and part of the imposing sheds of the excavation.

These sheds, measuring 150 m. in length (from South to North) and 80 m. in width (from West to East), shelter an area of 12.000 sq. m. It is hoped that in the next two years the roofing will be unified and conditions of preservation improved. This has already been achieved in the Eastern sector during the present excavation season (plan B, pl. 5b). The sheltered antiquities lie at the usual depth of 5 to 7 m. below surface; in the Eastern section, their roofs are almost on a level with the unexcavated higher areas. The boundary is marked by a solid wall, which is to form a single structure with the roofs.

Observations were again made while sinking wells for the shed-pillars. The most important are included below.

Well 54 presented an unusual succession of layers of sand pebbles separated by fine sediments of mud (pl. 6a). Volcanologists may find this of special significance in relation to the phases and other phenomena of the explosion. For the same reason a photograph was taken of the walls of well 58 (pl. 6b), which presents alternating layers in the aspa. The same well produced a large number of worked stones down to a considerable depth (pl. 7a). Other wells yielded finds that will be mentioned later.

Two years ago, following Professor L. Knidlberger's recommendation, I invited Mr. E. Gogolin, the distinguished geometrician of the Munich Topographical Service, to draw a detailed hypsometric map of the district of Akrotiri. Due to the expenditure involved, I was unfortunately obliged to have this project discontinued in 1973. What has been done so far, in collaboration with the Topographical Service of the Ministry of Culture and Science and the architect Mr. J. Koumanoudis, is presented in plan A. It is regrettable that this work had to be prematurely discontinued, because it is quite certain that the hidden antiquities extend from one side of the sea to the other. The South area, where our excavation is presently conducted, is apparently the location of the central quarter of the harbour. In the North area ancient traces reach as far as the caldera gulf, and surely a part of the city has sunk into the opened chasm to a depth of 800 m.

Above the village of Akrotiri (which, according to some indications, is also built over ancient remains) the slope climbs gently and fields extend over neatly formed terraces (pl. 7b). A fine stone vessel with carved decoration was found there, near the present church of the Virgin, just before the chapel of St. John (Thera I, p. 57 and pl. 84-85). A rather extensive (considering local conditions) plain stretches from there, past Loumarades and Archangelos, to the Western extremity where the Akrotiri light-house stands (pl. 8a). Near the light-house a ravine descending North-West (pl. 9a) into the Caldera sea had once joined the plain at this point. Traces of ancient remains are visible on the sides of the fairly mild ravine (pl. 9b), known as «Kalamia». The sherds collected from the site are Middle and Late Cycladic. However, the night-watchman Mr. Sp. Arvanitis, who owns fields in the vicinity, brought me from the ravine the sherds of an Early Cycladic globular vase with two unpierced lugs (pl. 8b). Two very thin hollow skull bones among the sherds reveal that the vase had served for the burial of a newborn, perhaps even a premature, baby.

There follows a description of the main excavation by sectors.

SECTOR A, EAST AREA A court in front of Xesté 1, at the North end of this sector, overlies some Middle Cycladic remains preserved in situ. Many stone objects of large size were found here, including a stone anchor.

The anchor, which is possibly not made of local stone, has already been described in *Thera VI*, p. 19, and is further illustrated here (pl. 10a). Pierced stones of small size and varied shape have been frequently discovered in the course of the excavation. The present heavy examples, however, are most likely to have been used as anchors.

Pl. 10b presents the «pierced stone» also described in *Thera VI*, p. 19. The picture shows clearly a fine groove (above, vertical to the hole) caused by the rubbing of a cord, and an extensive erosion (on the left half) which could have been produced only by a thick rope. In our days, peasants twine around a tree trunk newly - purchased stiff rope and pull at either end alternately in order to make it pliable. Quite possibly this was also practised by water - drawers in antiquity.

Work undertaken in this area with the sole purpose of opening a pathway to permit visitors to complete their tour of the ruins brought to light another interesting building (pl. 11a). Its façade is in ashlar masonry; hence the building has been tentatively named «Xesté 5». It is situated very near the stately Xesté 2, but excavation of both would require technical means which are as yet unavailable. The dimensions of the building are still unknown. The portion uncovered lies by shedpillar 33 (see plan B).

A few metres further South is the long-known indented façade of Sector  $\Delta$ . By consolidating and further digging, this important compound of explicit religious significance assumed a more concrete shape. Its centre is occupied by the famous «Room of the Lilies» ( $\Delta$ 2). Pl. 11b shows the room from the East. Behind the upright sign is the cupboard already described last year. Next are the window, the door, and then the last door to the right giving access to the niche or treasury which was found full of select pottery (Thera IV, p. 24). The roof, i.e. the floor of the upper storey collapsed in such a way that the schist slabs of the floor lie vertically before the door (pl. 12a). A few more vases were retrived with difficulty. A complete excavation, however, would present serious problems, as the floor above has been preserved and should not be destroyed. Pl. 12b shows in position an upright and intact slab of unbaked clay and the beam holes of the floor.

Before Room Δ2 there is a «court» to the East.

This may eventually prove to have been a roofed compartment, because further East it is adjacent to Rooms 17 - 19, whose East façade is formed by the often mentioned indented wall (see plan B). The investigation carried out as far as circumstances permitted, is nearly complete in the more Northerly rooms and less so in the Southernmost Δ19, which still presents technical difficulties.

The North wall of the «court» of  $\Delta 2$  was already found overcrowded with pottery which had to be extricated and sent to the laboratory. A brief description of the remaining rooms is given here, starting from the North where Room 17 is situated. The progress of the excavation revealed that this room was divided by a thick coarse wall in two compartments, of which the Northernmost has been designated as 17a. In several places we could see clearly the fallen roof - perhaps (though not surely) there had been no upper floor here. Roofs or floors are quite commonly encountered in the course of the excavation. They are always fairly thick, measuring between 15 and 30 cm., which suggests that they consisted of strong and closely set beams. The construction of floors presents slight variations. Basically, they are made of small flat stones placed in rows over the beams. There follows one or more layers of earth of varied quality, the uppermost being always beaten, unless the floor is paved with large beautiful schist slabs, which are plentiful in the district of Athenios. When not paved with slabs, the floors of special rooms are covered with very fine sea pebbles ranging

between one and three millimetres in diameter. (This was also observed years ago during the excavations at Pylos.) In other instances the upper beaten layer of earth is mixed with finely pounded fragments of snail or sea shells, so that the swept floor would show iridescent traces of mother-of-pearl. Pl. 13a presents part of the collapsed floor or roof in Room  $\Delta$  17. The stones, the middle layer of earth and the upper beaten surface of the floor are clearly visible.

The whole  $\Delta$  17 had been a rich storeroom of pottery and implements of all kinds. The upper strata of  $17\alpha$  revealed at the centre of the room a group of vases and implements shown in pl. 13b. Four slabs had either fallen from above or had been purposely placed so as to form a rectangular recess under these first finds. A large bronze ewer (height 0.46 m.) lay beneath one of these slabs (pl. 14a). It was full of sand and other sediments from the torrent, but otherwise fairly well preserved (pl. 14b).

The Southernmost section (17) of the room contained the principal finds. The upper part had preserved in almost horizontal position hewn slabs (not shaped at random). These must have formed the border of the upper floor round the walls, for small fresco fragments were still attached on them (but not in position). One of them shows osier branches (pl. 15a). Upon one of these slabs lay an important find (pl. 15b), i.e. a stone vessel and a cylindrical piece of pure lead with a bronze handle (see below). The above - mentioned fresco fragment is seen on the right of the photograph.

The rest of the floor or roof had sunk approximately one metre deeper (pl. 16a) and had fallen over a hoard of all sorts of vases and implements piled up within this narrow space. The picture shows the right end of the heap which rested against the South wall of the room. The remarkable ewer illustrated in pl. 43a is visible in the background. By removing this part of the pottery, the South wall was freed and a way was opened to permit gradual cleaning of the room. The progress of this operation is evident in pl. 16b, which shows a photograph taken after the removal of several objects.

Some characteristic moments of the city's last hours are disclosed here. The pottery stored included a number of medium - sized jars. One of them shows part of its content of land snails preserved at the bottom on the vase (pl. 17a).

At the Western part of the heap and on top of the remaining pottery lay intact a fine clay table of offerings. A rhyton in the shape of a boar's head was placed upon it, as can be seen on the photograph (pl. 17b). (Both objects are described and illustrated below.) Smaller finds included bronze tools, bronze hooks and eight inlaid disklets, most probably from a gaming - board. More will be said later about the most significant of these objects.

The following room to the South ( $\Delta 18$  in plan B) has not been excavated because it is full of holes from missing wooden pieces which must be carefully studied. The next and last room ( $\Delta 19$  in plan B) is bipartite and has the typical aspect of a staircase. In fact, the Southernmost wing has preserved the first stone steps accessible to tenants through a door opening into the indented façade (pl. 18a).

Another rich pottery storeroom was excavated West, opposite these rooms. This is  $\Delta 9$ , 1 which was adjoining to  $\Delta 9$  on the South. We have known that this place was rich with pottery since the time when shed-pillar 21 was erected (see plan B). Excavation was difficult owing to the fact that the roof of  $\Delta 9$ , 1 (which also formed the floor of the upper room and consisted of schist slabs) had sunk by approximately one metre, but had more or less retained its original position. The slabs were first numbered and subsequently removed and reassembled by Mr. Nikolouzos, the chief technician of the Restoration Service. We were then able to proceed with the excavation.

Room Δ9, 1 was also full of pottery but of a finer quality than that stored in Room Δ17. The vases were closely stacked one above the other, mostly along the Eastern and Southern walls. The photograph (pl. 18b) was taken after removal of many of the major pottery pieces. Nevertheless, plate 19a-b illustrates how densely the vases had been piled. By the South wall were dozens of one-handled bowls (kyathoi). Some were manufactured locally and marked with a cross under the bottom (pl. 19a), while others were imported fine products of Minoan origin. Some of these examples are visible in plate 19a-b. On pl. 19b (below) can be seen an upright large vase with á lugless kyathos as a lid. The kyathos is Minoan but the vase itself is the first and possibly the earliest Syrian amphora so far discovered on Greek territory (cf. below). The room also yielded some stone objects, and a steatite seal (below, pl. 56d) was found during the sifting of the earth removed.

When the floor of the room was reached, we discovered in situ the skeleton of a medium - sized pig (pl. 20a). The animal lay stretched on its right flank and its skeleton was intact with the exception of some damage on the head, of which only the lower jaw has been preserved (pl. 20b). The animal does not seem to have been sacrificed but rather to have

died of some other cause. This is the first victim of the disaster unearthed in the course of our excavations. More than a hundred years ago, the French discovered a human skeleton on Therasia and a goat's skeleton in a partially investigated house at Balos on the edge of the Caldera.

Closely bordering on the indented façade of this sector is Xesté 2, the largest of the buildings excavated so far (see plan B). The North façade of this mansion, where part of the third storey has been preserved in its position, is now fully cleared and measures 23 m. in length (pl. 21a). The other side of the building can be seen rather clearly at present, although in the upper parts at least it is greatly damaged. It appears to have extended almost as far as Xesté 4, in which case its length would be about 36.50 m.

WEST AREA OF SECTOR Δ This area includes Sector  $\Delta$  in the Northern part and Sector B in the Southern and is separated from the Westward lying Sector  $\Gamma$  by the Telchines Road (plan B). Ascending the Telchines Road from

the sea (South) towards the North, we see (pl. 22a) that the width of the road is partially blocked by the gateway which had been serving Sector  $\Delta$  from the West. This pylon, the first of its kind, is a notable work reminiscent of Oriental models (*Thera VI*, pl. 95a). On account of its ruinous condition, excavation was only made possible this year, after it had been consolidated with buttresses. There is no entrance on the façade, i.e. on the West, but it has two side entrances, a Southern and a Northern one, along the axis of the Telchines Road.

The South doorway (pl. 22b) is narrower. Remains of the geisa above the entrance have been preserved in the ashlar masonry, but it is still difficult to tell which remains are from actual geisa and which have resulted from the displacement of stones. The whole section left of the entrance (the one with the two buttresses on the picture) is a very thick wall of fortified construction (plan B).

The North doorway of the pylon is broader (pl. 23a). Its lintel has slided slantwise, and so has the wall to the left of building  $\Delta$ , but both have been consolidated in the exact position in which they were found. The opening left of the gate belongs to building  $\Delta$ : it is the side - window (parathyris) of the doorway which led from the interior of the pylon into the staircase of compound  $\Delta$  (pl. 21b). The upper storey of the pylon was decorated with frescoes in the synthesis of spirals and rosettes familiar in Thera. Preserved traces reveal that the upper storey had a combination of slab and pebble floor.

A little further South of the pylon, we attempted to clear Room B1, where the frescoes of the Antelopes and the Boxing Children had been discovered. The frescoes were situated in the upper storey, and we now tried to excavate the basement. Pl. 23b shows the beginning of this operation. At first we removed a third antelope; its head was missing, but its body had been almost entirely preserved on the North wall, right of the window (*Thera IV*, pl. 51b). A fragment of the underlying red - painted plaster belongs to an earlier period. Similar remains, preserved left (West) of the window, have been duly secured (pl. 23b).

The floor of B1 had slightly sunk but remained still in position. At a depth of 25 - 30 cm. beneath the slab - paved surface we came across a fine example of the dorosis already described in previous reports. Closely set wooden rods, about 3 - 7 cm. thick, were transversally placed over the floor beams. The rods were covered (presumably) with successive layers of branches and foliage, stones, clay and earth, to a total thickness of 20 - 30 cm., over which were laid the schist slabs of the pavement. By pouring plaster in the holes encountered, we repeatedly obtained in the past the shape of such wooden rods, but their exact significance was made clear with the passing of time. Pl. 23b shows (from the West) these holes, while pl. 24a presents (from the East) the West end of the room. The plaster moulds have preserved the shape of the beams (above left and below right) and of the rods placed transversally between the beams.

Working further on the floor (which belongs to an unusually low basement) we soon caught sight of the first mouths of jars. Here was an oblong storeroom of the Knossian type, with a narrow passage in the middle and a row of jars on either side along the South and North walls. The jars are embedded in a special kind of stone structure, as they are in the opisthodomos of the palace at Pylos. Pl. 24b presents the storeroom in its whole length from East to West. The left (South) side has seven jars, the narrow (East) side one, and the right (North) side six, of which the last lies under the plaster mould of the now missing wooden beam, which I was reluctant to destroy. It once supported the separating clay wall on which the discovered fresco of the Antelopes had been painted. Thus a total of fourteen jars are visible, as well as another two or three vases.

Some of the jars still retain their lids, either whole or broken (pl. 25a). On this picture one of the smaller vases is clearly seen on the floor with the plaster mould of the wooden beam above to the right. Another vase is visible in pl. 26a (above), which shows the South side of the store-

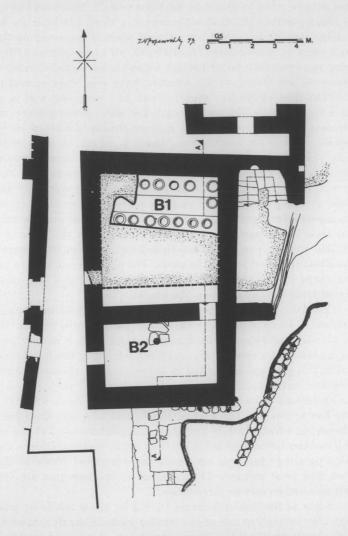


Fig. 1. Sector B. Plan of the ground floors of Rooms B1 and B2.

room with numerous stome implements (mostly pestles) as they were unearthed. Plain rhyta are seen in the position they were found, i.e. two between the 3rd and 4th jar (counting from above), and another two between the 4th and 5th jar. A similar rhyton, broken in two pieces, lay between the 5th and 6th jar. The impression conveyed is that these vessels served both as ladles and measures of the liquid product — wine or oil — which could thus be directly poured into small and narrownecked vessels without the use of a funnel. Several small vases are also visible on the floor (pl. 26a, above). Figs. 1 - 2 show in detail the plan and section of the storeroom.

B2 (see general plan B) is an upper storey room of the same size as B1. A large column base of stone occupied the exact centre of the room. The slab-paved floor, slightly sunk, was preserved in

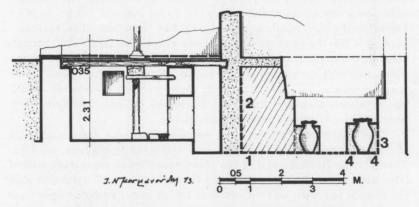


Fig. 2. Sector B. Section A-A' of Rooms B1 and B2. Proposed restoration of the roof of B2.

position (see Thera II, pl. 8, with many of the ceramic finds still in situ, and pl. 9b, where the column base in visible). Because of technical difficulties, this room had been left untouched for several years. Once the decision to excavate was taken, the floor slabs were first numbered and removed, then reassembled by Mr. Nikolouzos with a view to replacing them in time. Pl. 25b shows this operation, while the column base is still in position.

The progress of the excavation revealed the following points: The basement did not correspond to the upper storey, since the Northern part of the room had been separated by a poorly constructed wall run-

ning East - West and formed a narrow corridor. Thus the column was no longer situated at the centre of the basement room, but near the separating wall (see detailed plans in figs. 1-2). The column rested immediately upon the thick floor (the structure of which has been described above) and was supported at this point by three broad beams. Pl. 26b shows the base of the column, the floor, the hole left by one of the missing beams, then a layer of mud and a layer of aspa which reached up to the floor. On this there are three slabs, upon which a wooden column had possibly rested, supporting the entire upper structure (see figs. 1-2).

In constrast to the luxurious upper storey, the basement was a plain kitchen storeroom: its floor was full of cooking - pots, drinking - vessels, and very few utensils of other shapes, as may be seen in pl. 27a. The West side of the room served for the storage of the cooking - pots. These are of the ordinary tripodal type, made of brown or red brown sandy clay which appears to be fire - resistant. The cooking - pots were for the most part of uniform shape and large size, though there were also some smaller ones. They had been placed upright, upside down, sideways, or very often one inside the other. Fifty - three pieces may be counted (pl. 28a), but surely there are more underneath. Without exception they are almost all blackened by fire; therefore, they were not merely stored but had been in use.

The Eastern half of the room was less compactly filled with cups of various types, a few cooking - pots and even fewer jugs (pl. 28b). There, at the Northern end of the above - mentioned separating wall of later date, stood the door, which led through other still uninvestigated openings to the East, where there were one or more, probably open - air hearths.

The passage left by the voluminous coarsely built separating wall (pl. 27b) is very narrow (80 - 90 cm.) and was found practically empty. Only a few sherds and some common stone implements, mostly grinding pebbles, lay on the floor. Nevertheless, the upper half of a curious perforated vessel was reconstructed from the sherds (pl. 29a). This was an imported Minoan vessel, possibly an ewer imitating a metal original.

It is interesting to note that a structure, which may be interpreted only as a hearth complex, was discovered outside B2 resting against its Eastern wall. The structure consists of upright schist slabs enclosing a stone base similar to those of the bathroom - kitchen of the West House (*Thera VI*, pl. 55b). Here too, a pipe served to conduct water away. Opposite this structure there was a group of varied clay pottery

with a large shallow clay pan preserved at the top of the pile. A crude slab - floor completes the picture (pl. 29b). This may have been a provisional and temporary construction of the troglodytes, who had been intensively busy amidst the ruins in precisely that part of the city.

Curiously, no trace of fire was discovered anywhere during the excavation. I am inclined to interpret this absence of fire traces by the assumption that donkey and other animal dung was being burned as fuel. This explains why the walls of cooking - pots were blackened, although no charcoal or ash remains have been found as yet.

SOUTH AREA, XESTÉ 4 Our excavation was not extended over the South area, where a section of a large building in ashlar masonry had been uncovered (*Thera VI*, pls. 20-22). Only a superficial examination of the build-

ing's outline was undertaken in order to permit the architect to make measurements. The sinking of wells in the entire South - East area had already revealed remains of architectural and religious significance, which add special interest to Xestai 2 and 4. In Well 64, at a depth of 6 m., the catastrophe layer contained two stones artlessly incised with the sign of the cross. If these are quarry signs, they are the first to be found. From Well 66 (a little further North) was retrieved a large fragment of a poros double horn. The circumstances of discovery are unfortunately confused, for the workmen brought up this find along with other pieces of poros. The horn must have consisted of five pieces in all, reaching to a total height of approximately one metre.

Xesté 4 proved to be a larger and more complex building than was originally surmised. The North façade is a single massive wall in ashlar masonry, whereas the South side, which must have constituted the main façade, has a still unclarified though surely more elaborate form with projections and recesses and walls of alternately ashlar and ordinary masonry. The narrow sides of the building are the Western and Eastern, with one indented projection in the former and at least one in the latter. In the Eastern half of the building, a polythyron was discovered at the height of the third storey. Pl. 30a affords a glimpse, while more details are supplied by the general plan B.

There are apparently some poorly constructed and badly preserved walls West of the polythyron. While attempting to clear these walls in order to include them in the plan, we came across large fragments of frescoes which seem to have belonged to a fallen staircase. These fresco fragments are illustrated in pl. 31a. Pl. 31b presents a detail showing next

to the zig - zag bands large leaves of reed - like plants and two calyxes reminiscent of lotus.

The South façade of the building has an elaborate form and is extensively damaged. During the sinking of Well 43, just opposite the centre of the polythyron, a cylindrical hewn stone was uncovered and is now seen in situ. This could have only served as base for a wooden column. However, it appears to rest on void, as it is entirely surrounded by aspa. It is hoped that the next season of excavations will shed more light on this interesting building.

SOUTH - WEST SECTOR, XESTÉ 3 This year's excavation was chiefly centred on the stately building whose façade with two very large windows and a huge heap of fallen hewn stones had long been known to us (*Thera III*, p. 38 - 39 and *Thera V*, p. 26 ff., pls. 50b - 51a, where the

building is designated as «Xesté E»). In view of the obvious significance of the building and the anticipated difficulties of the excavation, it was decided to postpone works until the area would be provided with a shed (pl. 30b). It would not be possible to give here a detailed report of this difficult but most instructive excavation. The principal points, however, are as follows:

We soon discovered that this building was constructed on all sides with hewn stones (such an occurrence is not common). Hence, the catastrophe layer is on all sides both massive and impressive. The South side is the most revealing of all. This is where the «troglodytes» had settled and installed their workshops immediately after the earthquake. They were already engaged in the task of removing the debris in order to begin repairs. Using stones from the ruins they erected provisional buildings, in which they could dwell and work. Their stone tools and implements are still lying is situ (pl. 32a). A few metres further West, next to some very thick low walls, we came across the nucleus of the workshop. Stone tools lay there in heaps: hammers of varied size, grinders, whetstones, anvils and pierced stones. A shallow grone (hollow vessel) bears a ring of small circular cavities. Such vessels are usually designated by archaeologists as «kernoi». Here, this vessel lay among the tools (pl. 33a).

The catastrophe layer by the North wall of the Xesté is similarly instructive. The characteristic fine pumice, which suggests the awakening of the volcano, had begun to fall upon the stones and decomposed bricks (pl. 33b). Pumice is soon encountered in larger pieces (above

right on the picture), which indicate that the volcanic eruption was in full progress. After removing these pieces of pumice there appeared a layer of huge poros boulders (pl. 34a). At this stage we found fragments of painted plaster and even some finer fresco pieces. This was a favourable sign, although indications as to the state of preservation of these precious works were not encouraging.

Systematic cleaning began from the entrance. This was situated at the South - East corner of the building and it had a door and a window (pl. 34b) which were still difficult to clear from the outside.

Progress was easier in the interior. The door, which was equipped on the outside with a built bench for the door - keeper, led to an anteroom with a slab - covered floor and stone benches along all walls. Seen from afar, these are somewhat reminiscent of the seats of the Throne Room at the Palace of Knossos. Pl. 35a shows the South (right) and East sides of the anteroom. The North side was likewise equipped with a bench. Evidently many people entered this room and awaited their turn. We have, therefore, characterized Xesté 3 rather as a building of public use. This view is supported by the fact that signs of private habitation were scarce. Only a small room (no. 6) was found containing two storage - jars and very few other vessels.

On the West side of the anteroom is the most monumental staircase discovered so far, with broad low steps (pl. 32b). The first flight, which is entirely preserved, has seven steps, of which the last forms a large stair - landing. The staircase continues with a second flight of stairs, corresponding to the second storey. Of this flight six steps have been preserved (the sixth in mutilated state). Pl. 35b shows the uppermost three steps; the other steps below them are well preserved. The walls flanking both flights of stairs were decorated with frescoes, as has been reported in Thera VI, p. 23. The staircase is still designated as «corridor». We discovered further examples of the pointed mountain peaks described therein. One may represent a volcano (it has a conical shape). At least one human figure in life - size was painted on the South wall of the anteroom. The fresco fragments recovered are of large dimensions and there is no sufficient room for them in the laboratories at Athens. The technical staff is having a hard time in an expropriated many storied building on Polygnotou Street, where the frescoes of the staircase have been transported. I am afraid it will be quite some time before anything more positive could be said about these frescoes.

When numbering the rooms, the staircase was designated as no. 5. The adjoining small room on the West (no. 6 in plan B) is the only one

that produced evidence of permanent residence in the house: clay and stone vessels were found on the basement floor. Pl. 36a gives a general view of the floor. Below left are two ordinary storage - jars, which are better illustrated in pl. 36b, showing their rope patterns characteristic of the LM Ia period. On the same picture can be seen the stone pestle (right of the second jar) which belongs to a stone mortar discovered a little deeper. By the South - West corner of the room (pl. 36a, above left) lay a large upright ewer with almost pointed bottom. This unusual vase, which may have been of foreign provenance, is better seen in pl. 37a. Before firing, the sign 1 had been deeply incised at the root of the handle. In the middle of the body there is a crack with a series of holes on either side. Apparently the vase had been mended by stitching, possibly with a leather strip. Only a delicate hand could have done this, however, as the mouth of the ewer is not sufficiently broad for this operation. There are also some other smaller objects in this room. The carbonized object visible at about the centre of plate 36a may have been a wooden lopas (dish).

There is evidence that Room 8 of the xesté was a staircase too. The partly excavated Room 9 is mentioned here, because it contains the remnants of a fresco with rosettes and relief borders, which seems to have been a remarkable work of art. The rest of the rooms will be described here, as discussion will be restricted to the polythyron 3, which is the most important compartment of this mansion and yielded perhaps the most outstanding of the frescoes hitherto discovered during our excavations at Akrotiri.

Pl. 37b presents the polythyron and its slab floor at the upper storey. The basement will remain inaccessible until a way is found to consolidate the upper storey. On the right, i.e. to the West, is the Thicket of Reeds, a fresco that has partly survived on the wall. A group of three women was also found there; one of them wears a dress with embroidered lilies and they all seem to carry large bunches of flowers. Unfortunately, for the reasons exposed above, restorative work is progressing slowly. The illustrations included in *Thera VI*, pls. 24b - 24c, show portions of the frescoes immediately after discovery.

There existed a possibility to dig deeper in the lower part shown on the picture (i.e. to the North). As a result we came upon a room of mysterious and possibly mystical significance, of the type known as «lustral basin» in Cretan palaces. It is the first excellently preserved room of this type to be found outside Crete. These rooms, once believed to have been «baths», would be more accurately characterized as «sacral

adyta», for they are surely of a religious nature, although nothing more is known about them. The «adyton» in question is seen in pl. 38a and its structure is shown by Mr. Koumanoudis' plan and section (figs. 3-4). It is accessible through five (so far) visible steps placed at right angles round a built podium or small wall of hewn stones. Pl. 38b shows this in more detail. Its purpose is still obscure, since the upper slab was found covered with a fat organic substance, which has been protected and left intact. Naturally, our first thought was that the structure had served as an altar, but further investigation will disclose whether this assumption is correct. The little space left in the room is paved with slabs and dressed with rectangular schist slabs of uneven size. The now empty interstices between the slabs had been evidently filled with upright pieces of wood.

To this brief description we shall add the circumstances of discovery of the frescoes, which lend a special tone to this significant building.

Unfortunately, the state of the finds allowed no better photograph than the one reproduced in pl. 39a, which shows rather unsuccessfully the anteroom of Staircase 5. On the South wall, i.e. to the left of those ascending the stairway, a large fresco fragment was still preserved in situ. It depicts a man in natural size, painted in red. His legs are bare from the knees down, but his thighs are painted in white, which probably suggests a sort of cloth or bag or something else. He seems to be holding a cord which reaches to the end of the wall. In my imagination I saw a hunter with his hound climbing down the mountains. A large piece of plaster (left) fallen from above shows the decorative bands which formed the upper frame of the frescoes. The wavy terminal above indicates that the roof of the staircase was supported by closely placed round beams.

The anteroom of the staircase communicates on the North with Room 2. Some very incomplete, but nevertheless precious, remains of a fresco frieze were found here. (One must always bear in mind the fact that the frescoes were originally situated in the second and, sometimes, the third storey, whence they fell to the basement.) The frieze in question, which is directly related with the polythyron, represents themes of the astonishing originality and daring that characterize as a rule the Theran frescoes. Despite their incomplete and fragmentary condition, the remains permit a safe interpretation. The principal subject is blue monkeys engaged in human occupations. One of them appears to be a musician, although the object he holds, possibly a harp, may well be a woven

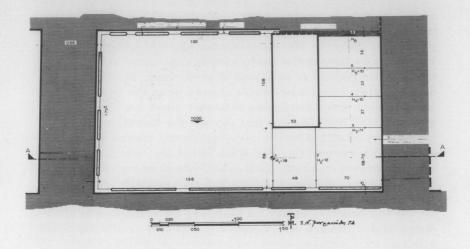


Fig. 3. Xesté 3, 3. Plan of the «adyton» (?).

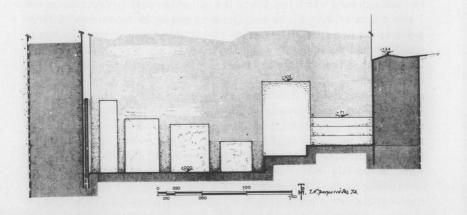


Fig. 4. Xesté 3, 3. Section of the «adyton» (?).

shallow basket. Another monkey has drawn his sumptuous sword, possibly made of gold, and is about to cut off the head of a spotted sand-viper held in his other hand. There is a third monkey too, but the meaning of his representation is still obscure.

On the rest of the frieze, which is only 20 cm. wide, are depicted rocks. In their cavities rural swallows have built their nests, from which protrude the open beaks of the featherless nestlings. In one of the fragments, a mother swallow approaches carrying a large insect in her beak. Clusters of crocuses grow on the rocks. Pl. 39b shows one of the fragments photographed as soon as it was detached.

The basement of Room 4 was full of slabs from the upper storey. Upon these lay portions of a large composition which was purely decorative. It consisted of rosettes, a variety of spirals — in some instances with tongue - like projections (pl. 40a) also known from pottery—and several motifs (pl. 40b), always of a decorative nature.

Another agreeable surprise was supplied by the upper storey of Room 9. The North wall carried large and thick pieces of painted plaster of excellent quality (pl. 41a). These had no doubt belonged to a higher part of the house, either a tower or a «summer attic» or perhaps an entire third floor. In this instance too, the themes are purely decorative: blue or white rosettes surrounded by a double net-like pattern in relief. The relief work is of admirable quality and betrays a sure artistic hand. The large piece provisionally reconstructed in the excavation laboratory (pl. 41b) gives an idea of this masterpiece. The relief net is evidently a most successful imitation of ivory work. The rosettes have alternating colours and the ground is painted in a deep metallic red.

The fascinating discovery of the most interesting frescoes of Xesté 3 turned to a disappointing experience because of their bad state of preservation. This was particularly felt in the area of the polythyron (no. 3 in plan B). The «thicket of reeds», which survived intact in situ, had given rise to better hopes. In fact, fragments showing aquatic birds came to light nearby. Among these, a duck ( $\nu\eta\sigma\sigma\alpha$   $\dot{\eta}$   $\beta\sigma\sigma\alpha\dot{\alpha}$ ) is a small masterpiece (pl. 42a, colour plate L). However, as investigation progressed and the filling of the adyton was reached, we realized that a superb work of art had been wiped out by the impact of the disaster.

The tedious task of detecting, isolating and extracting fresco fragments was continued for weeks on end, until hundreds of pieces filled our trays. Quite often the fragments measured no more than 2 or even 1 cm. in diameter. Larger pieces of 10 - 20 cm. were rarely discovered. For a whole month it was impossible to surmise anything about the

composition of the fresco, except that it contained some clusters of «grass» (pl. 42c). Finally it became evident that the representation included a crocus. From time to time we retrieved an almond-sized piece painted with a human eye. Then there came up fragments that could be interpreted only as feminine garments. Next, the piecing together of three or four fragments began to show the white arm of a woman (pl. 42d). Later, a fragment showing a nose was found. Once, a piece with the entire back of a woman's head was unearthed (pl. 42b).

The whole winter and spring of 1974 were dedicated to reconstructing the meaning of the fresco, a task undertaken by about twelve experienced artists of the restoration laboratory and myself. We are most grateful to Mr. Michaelidis, Curator of the Byzantine Museum, for the help he offered in more than one ways. Now the subject of the fresco is identified with certainty; only a few details are not yet clear. We shall revert to this subject later (p. 32 ff.).

As usually, the pottery discovered outnumbered other finds by far. Rooms  $\Delta 17$  and  $\Delta 9$ , 1, and to a lesser extent the kitchen B2, the court of  $\Delta 2$  and the treasury of the same room yielded hundreds of ceramic finds. These vary from the large storage - jars to the small imported luxury vases. There follows a very brief mention of the chief examples.

The most outstanding pottery find is the ewer illustrated in pl. 43a. It is an imported product, akin to the ewer discovered in fragments some years ago (see *Thera IV*, pl. 63). Actually, two further fragments of this vase were found in Room  $\Delta 17$ . It was thus confirmed that the torrent had carried away the rest of the vase, whose fragments were hunted down for years and eventually traced along the bed of the stream.

To avoid repetition, I would refer readers to what has been written in *Thera IV*, p. 33 - 34, which also applies to the newly found specimen. The yellow lustrous coating, obviously imitating a gold model, has been admirably preserved. Of the whole vase only the end of the beaked spout is missing. I believe it should be restored according to another example, which is of the same type but has a plain unpainted surface, namely, the ewer illustrated in pl. 43b. A markedly heraldic bird occurs twice as the principal decorative motif of this latest discovery. The bird has four wings, as the martial horse of Odin had eight legs. Perhaps some day we shall know more about the mythological bird which adorns this vase of royal luxury.

Of the large and medium - sized pottery we present a selection of

the many examples found. Pl. 43c shows a large ewer in variable «trickle» decoration which was fashionable in Crete mainly during the MM III period. Conversely, the amphora shown in pl. 43d is a typical example of Theran tradition.

An interesting new category has the usual matt - painted decoration of dark brown colour, on which the artist has applied a broad border of thin red paint, producing a most pleasing aesthetic effect. Thus the palm on the spouted jug of pl. 44a looks as if it had red flesh on a brown framework. The decoration on the nippled ewer of pl. 44b has been entirely executed in black paint, but the artist has added a lively touch with a few plain strokes of his red - coloured brush.

The ewer of brown and white decoration illustrated in pl. 44c is excellently preserved. Evidently it belongs to the pottery which was buried under the ruins without ever being used, for it still displays a surface that looks fresh from the potter's kiln.

Some of the small vases are markedly symmetrical and elegantly decorated. The decoration of the minute jug of pl. 44d consists of vetches. The spouted skyphos of pl. 45 is decorated with ears of the sacred corn. Even the interior of the vase was made attractive with simple colour splushings from the painter's brush.

A pair of small, one - handled, possibly imported kyathoi are painted all black (pl. 46b). Another series of locally produced one - handled kyathoi had been stored in Room  $\Delta 9,\,1;$  some examples are presented in pl. 46c-d. Among the pottery of peculiar shape was the ethmopyxis (strainer) illustrated in pl. 47a-b. The bottom of this type of vases, which occur characteristically in Thera, is always perforated, as we can see on the picture. Their painted decoration suggests that they were luxury products. The other example published here (pl. 47c) belonged to the upper storey of Xesté 3 and was made by the hand of the Swallow's Painter.

Ceramic finds included an entirely preserved example of those pots which are always of coarse workmanship and unpainted. They occur either in single or twin specimens, in which case they are sometimes called «dioptra». The present example has one side handle and a second small handle above (pl. 46a). As a last example of local workmanship we present a sherd from Xesté 3, bearing the representation of a bird in the Middle Cycladic tradition (pl. 47d).

The yield of imported Minoan pottery was also prolific. Special mention is made of a series of kyathoi which lay in Room  $\Delta 9$ , 1, along with similar local vases. Pl. 48 illustrates nine examples with various

types of decoration. The kyathos with «tortoise - shell» decoration (above, right) is a very familiar and typical vase. The kyathos at the centre of the lower row is notable for another reason: it is the earliest known example of a series extending down to the Mycenaean IIIb period. Their truly curious decoration consists of horizontal wavy lines in thinner and thicker slips of coating, either intentionally applied so by the painter, or resulting automatically from his handling of the brush. In any event, the outcome conveys the impression — which in some instances is quite strong — of a perspectively rendered meander. Pl. 49a reproduces an enlarged photograph of the same vase.

Pl. 50 illustrates another series of imported kyathoi in order to present parallel examples with floral motifs. The two kyathoi of the middle row have no handles.

Last shown is the Syrian jar (pl. 49b) discovered in Room  $\Delta 9$ , 1. One of the handles was already missing, while the mouth was plugged with the Minoan kyathos (now visible by the jar's foot) which probably served also for measuring the liquid contents of the jar. Another two or three examples of these pointed amphoras have been unearthed on Greek territory, but this is the oldest specimen. It should be noted that the bottom of the jar illustrated here is not pointed but rather oval-shaped.

MISCELLANEOUS FINDS Among all the ceramic finds, the table of offerings and rhyton discovered in Room  $\Delta 17$  are of the greatest artistic value. The excellently preserved table is of dark clay with applied white

decoration (pl. 51). This is composed of the inverted wavy theme of «clouds», clusters of crocuses on the three legs, and irregular curves (imitating amygdalite stone) on the upper surface.

The rhyton found upon the table (pl. 57) is a vigorous rendering of a boar's head. Only the extremities of the ears are missing. The beast's strong tusks and other details of the head are modelled in relief. A glaze of dark shade had been additionally used, but this is not well preserved, nor is the clay surface refined.

The elegant clay lid of a small pyxis (?) was found in storeroom B1 (pl. 52a-b). The upper surface is adorned with a painted rosette. Despite its large diameter, the lid was used to seal an exceptionally small mouth and was pierced through with a hole at the centre.

The uppermost layers of Xesté 3 revealed another find of unknown significance: a curious clay vessel unearthed incomplete in fragments.

The missing part has been restored. It is made of pure yellowish clay, evidently not of Theran origin. The vessel is wheel-made; it has a cylindrical body with a single vertical handle in the middle and a conical top pierced with a hole at the side (pl. 52c). Multiple rows of tiny oblong objects rest upon the surface of the cone. If these are meant to represent grains of barley, then the vessel is an imitation of a granary. If the objects are interpreted as bees, which I consider more likely, then we have here the model of a beehive. Perhaps a more suitable explanation is yet to be found.

The excavation yielded abundant stone vases and implements. The spouted vessel of pl. 52d (with missing handle) is made of andesite and bears a central cavity at the bottom. It was found along with the lead weight of a half talent.

The fine spouted kyathos of pl. 53c is made of black stone. A relief ornament runs round the rim and an incised one round the body of the vase. The handleless vessel of pl. 53a, similarly made of spotted black stone, is decorated with two grooves on the outer surface. The vase in the shape of a bird's nest (pl.53d), which appears at first glance to be made of diorite, is in fact made of a less hard stone of local origin. Andesite is the material used in making the handleless conical vessel of pl. 53b, which may have served for the grinding of herbs or spices.

The most characteristic examples of the lamps recovered — which were plentiful in Xesté 3 — are illustrated here. The lamp of pl. 54a is made of black stone with lighter shades, while the clay lamp of pl. 54b is obviously intended to imitate a stone original. The small lamp of andesite seen in pl. 55a has been included here because the soot of the wick is still clearly visible on the edge of the lamp.

The elegant small plaque of a veined stone resembling onyx leads us to a sphere of great luxury. It is cut off in the shape of the neck and double beak of a ceremonial ewer (pl. 54c). This small plaque evidently formed part of a large composition containing a representation of religious character rendered with inlays of various materials on wood or plaster. Double - beaked ewers occur in religious representations (e.g. on the sarcophagus of Hagia Triada) and have also survived in actual examples.

From the implements discovered we present two specimens: the triangular marble object of pl. 56b, and the pestle or grinder of exceptionally regular shape, shown in pl. 56c.

The South layer of destruction in Xesté 3 contained the remains of a remarkable luxury object. It is a lid of fine green faience in the shape

of the calyx of a nymphaea (water-lily) or other similar flower (pl. 55b). At this point there is no way of ascertaining whether or not the faience is of Minoan manufacture. Possibly it is.

Another find consists of eight alabaster disklets, each inlaid with the half of a round black pebble. These were collected over several days during the excavation of Room  $\Delta 17$ . For quite some time the pieces found were only seven, hence they were noted in the journal as possible accessories of a lyre (phorminx). However, since their number increased to eight — and there may be more — they are more likely to have belonged to a gaming — board (pl. 55d).

Small metal objects were found in limited number. Generally speaking, metal possessions were taken along when the inhabitants left the island. A fine rosette - shaped bronze weight of one talent (pl. 55c) was found during the sinking of Well 62. Pl. 52e illustrates bronze tools or implements recovered from various sections of the excavated area. Pl. 56a shows the lead object discovered in Room  $\Delta 17$ . The handle is made of a thick piece of bronze, the rest is of pure lead cast in a mould. It weighs 15 kg. (it was weighed at the Akrotiri grocery) and, therefore, corresponds to the older heavy Babylonian talent, which was known even in Classical Greece.

The South layer of destruction in Xesté 3, where the upper storeys of this mansion had collapsed, yielded further finds that are rare in Thera. A clay seal is shown in pl. 56d. It is worth noting that a similar seal was discovered before (Thera IV, pl. III, below right). Pl. 57b includes an attractive pin - head of rock - crystal also discovered in the catastrophe layer. The other two objects presented are a calf's head in ivory (from Room B2) and a seal of steatite (from Room  $\Delta 9$ , 1) bearing one of the ordinary apotropaic themes.

A long and thin piece of bone was also discovered, with two rows of very fine teeth bent backwards in hook-like fashion. Snakes and some fishes have such teeth. Specialists will identify this object more safely.

THE
POLYTHYRON
FRESCO OF
XESTE 3
(plates 58-66)

It has been rarely possible to reconstruct a rational unit out of so small and so damaged fresco fragments. The technical staff engaged in the task never reassemble fragments unless they can be directly joined together as in the case of pottery sherds. Restorative work gradually revealed a

good part of a first female figure in the favourite scale of three quarters

natural size. As our eyes became more accustomed, fragments were assembled in groups on the basis of texture, colour or garment ornamentation. Thus, a second woman took shape progressively, then a third, until we finally ended with seven female figures in all. Not a single man is included in the representation. With the exception of one woman who seems to be older (although her figure is not clear yet), all the others appear to be young maidens between 15 and 25 of age.

Even the greatest of praises would be well deserved by our team of experienced restorers who were assisted in their work by the skilful students of the School of Restorers, which we have founded and operated for two years. Among the former were Mr. Margaritoff, Mr. Perrakis, Mr. Spathoulas, Mr. and Mrs. Pagageorgiou. Mr. M. Michaelidis, Curator of the Byzantine Museum of Athens, coordinated and encouraged the whole operation.

This undertaking has proved extremely difficult: the polythyron of Xesté 3 yielded no major fallen fragments which would greatly help in grasping the meaning of the fresco and would, therefore, facilitate the task of joining the pieces together. A single instance, quoted below, may serve as an example of our efforts which lasted throughout the winter months.

At the beginning we merely suspected that the older woman mentioned above might represent a «goddess» or at least a «queen». Her dress is very sumptuous and her neck decked with multiple rows of necklaces. One of these shows ducks and possibly other birds, another one bees. Could it be, then, a representation of the «mistress of the animals»?

Meanwhile, we discovered that a little blue monkey also formed part of the representation. Already at the time of the excavation, the piecing together of two small fragments revealed part of a head with a round eye and a rather long straight beak — therefore, a bird. This bird was «hunted» by Perrakis during the winter of 1973. Colourful feathers were added to the picture. So we imagined a brilliantly coloured large tail, and thought of a peacock, or even a kind of fantastical bird of paradise. Then months went by.

Perrakis was the first to realize that in all probability the blue monkey's place was somewhere to the left of the female figure. The technical staff was immediately instructed to try and see whether the bird would fit to the right of the woman. Coordinated attempts soon disclosed such a contact through further intermediate fragments.

The original hypothesis about the «mistress of the animals» was strengthened. Instructions were now given to search everywhere for

fragments of a beast resembling a lion. The next day such pieces were not only found but were also joined to the «bird». They showed clearly the body and legs of a feline animal. In fact, this was a griffin. The «goddess», therefore, is flanked by a monkey and a griffin with its forelegs probably resting on her breast.

As far as general lines are concerned we may visualize with almost absolute certainty the entire representation as follows:

Crocus is being gathered in a Mediterranean meadow in summer. The plant, which is precious for its healing and colouring properties, is regarded and honoured as a divine gift. Young maidens in splendid festive attire gather the stamens of the blossoms in baskets. The question remains whether the female figures represent a goddess and nymphs, or a queen and attendants. At all events, the representation shows a festive celebration, and more precisely a festival where women are the only participants.

The filled baskets are carried and emptied on a possibly wooden structure of yet unknown form. The representation is astonishing because each of the seven figures forms an individual composition of incredible daring and originality. The existence of a sanctuary or altar is to be imagined nearby, because another three women painted in natural size carry huge bunches of flowers held against their bosom. The landscape is enlivened with clusters of crocuses growing everywhere. Only the North - West corner is occupied by a thicket of reeds. Ducks fly amidst the reeds, while smaller birds have been apparently caught in nets.

The composition, which is the finest of those discovered so far, had surely belonged to the upper storey, but no further details are clear. Possibly it decorated the Eastern, Northern and Western walls above the domestic «adyton». It was visible from the polythyron and was completed by a frieze adorning the Eastern wall of the polythyron either outwardly or inwardly (i.e. facing Room 4). It is most regrettable that the devastating catastrophe, which struck Xesté 3 with particular fury, damaged also this masterpiece of Minoan art. Nevertheless, this example provides further evidence as to the number of great artists who lived and worked at Thera during the second half of the 16th century B.C., a period brought to a sudden end by the volcanic eruption.

We present herebelow some of the more restored figures from the fresco of «The Gathering of Crocus». Their common features are as follows: attire composed of a bodice and skirt, elaborate hair - dressing with individual variations in almost every case, jewellery consisting of

earrings (nearly always), necklaces, bracelets and (occasionally) anklets. Another most characteristic feature is the total absence of the usual red colouring of lips. Instead, lips and nails are painted yellow - orange, evidently suggesting the use of henna.

- Colour plate A, pl. 58: This figure, which we have conventionally named «Iris», is practically entirely preserved, but details are not yet clear. She wears a large dotted peplos, billowing to the left by the wind. She seems to be clasping her garment with both hands. Her head is shaven with the exception of a few locks of hair.
- Colour plates B and C, pls. 59 and 60: One of the most delightful figures of the fresco. She walks to the left, gathering crocuses, which she places in a basket carried in her left hand. With her head turned right, she is engaged in conversation with another companion. A rock separates the two young girls, who are perhaps the most beautiful of the whole group. An unusual feature is noticeable in the coiffure which, in order to suggest dense and curly hair, is rendered with incisions, as in Archaic vase paintings. In pl. 60 we have a detailed photograph of the same figure. It shows the incisions of the hair and a blue headband with which the hair is held above the forehead.
- Colour plates C-E, pl. 61: The graceful young maiden to whom the one described above is speaking. She picks the crocus stamens with a superbly delicate gesture. Her head is shaven except for a long tress fastened into a knot. As in the case of the other figures, the sleeves of her bodice are laced; in this particular instance the ends of the lace are adorned with papyrus-shaped beads.
- Colour plates F-H, pls. 62 and 63: The pictures represent one of the central figures of the composition. She does not appear to be engaged in gathering crocuses. Her full hair is arranged in a large knot over the nape and a smaller one above the forehead. She wears the same garments and ornaments as the other figures, but her breast is exposed. The scene is, therefore, of a religious character. In fact, this has been almost entirely confirmed by the progress of the restoration of the fresco. This young girl is obviously walking to the right, perhaps towards an altar. In the left hand she carries a large necklace (hormos) of rock crystal, while the right probably held a similar votive offering.
- Colour plates I and J, pl. 64: This figure is perhaps the most surprising of all. In the ceremony of the world of flowers, this girl has adorned

her full hair with a myrtle twig which she has stuck above the forehead, while the thick mass of her hair falls on her back. A gold (vellow-painted) clasp terminating in an iris-flower is seen over her nape, but is evidently not in its proper place. The young girl has just met with an accident. Sitting on a rock, she holds with the right hand her bare foot. A few drops of blood are visible on the ground. The left hand is brought, palm open, to the forehead in a characteristic gesture denoting pain and especially, distress - a gesture observed even in our days among Southern peoples. Did the girl stumble on a stone? Was she hurt by a thorn? Or was she bitten by a snake, actually a poisonous one, and her gesture suggests the fearful consequences of that bite? For many weeks we searched among the fragments for the snake, which would have associated the scene to a myth of the Eurydice cycle. So far, however, no traces of a snake have been found anywhere near this scene. Nonetheless, a snake - the venomous sand - viper known in Greece as astrite - was found on the opposite wall, in the frieze adorning the polythyron. If this was the offender of the present scene, the young girl has already found her avenger: a blue monkey is firmly holding the snake in one hand and is about to cut off its head with a naked golden sword.

Pl. 65: This figure, the next one, and yet another which is still in no condition to be reproduced here, lead us to other surroundings. They belonged, together with the previously mentioned thicket of reeds, to the Western part of Room 3 outside the polythyron. The thicket of reeds covered the Western wall. The three women decorated the Southern wall, and perhaps the South - West corner of that narrow space.

Only the busts of the three figures have survived from about the breast up. It is doubtful whether the rest of their bodies had ever been painted, for no such trace has been preserved. We may venture to interpret the scene as a procession of women walking towards an altar.

This figure is quite remarkable for her Greek profile and coiffure: the hair is held with fastenings forming a sort of net known as «kekryphalos». Curiously, the lips are not outlined, nor was paint applied on them, as is the rule when depicting lips.

The figure is dressed in sumptuous garments — the bodice is adorned with red lilies which can be imagined only as embroidered. Apparently she carried with both hands an enormous bunch

of flowers supported on her bosom and reaching above the height of her shoulder. The bouquet ends in a closed bud. The other flowers are what is usually called «wild roses». But, to judge by their shape and colour, they may well have been blossoms of cistus, the plant from which was extracted the famous medicinal and aromatic ladanum of the Orient. This plant is still called in Crete «aladanos» and the black gum resin collected from it by means of leather thongs is named «ladanos».

Pl. 66: The last figure illustrated here seems to be a sister image of the previous one. The representation surely depicts the same offering of flowers. So far, the breast of this figure appears to have been preserved to a lesser extent. Nevertheless, the right part shows clearly a naked, full but firm breast, a significant feature not so evident in the previous figure.

Perhaps we should also note that individual features are more marked in this than in any other figure. It gives the impression of a «portrait» and recalls Archaic Corinthian works.

Despite the fact that the fresco is still disiecta membra, we should add in conclusion a few words regarding the whole composition and its structure. Indeed, the artistic conception of this great work is admirable.

As regards general content, things are still confused. The gathering of crocus - flowers is an established fact. It is also clear that each full basket is carried and emptied near a wooden structure. But it is unknown whether this is a piece of equipment, an altar or some other special construction.

Another complication is the presence of a figure bearing all the characteristic features of divinity, among the figures of mortal women. If a connexion between the girl's wounded foot and the snake is accepted, we may have here an original myth, which is mostly known to us from the cycle of Orpheus and Eurydice.

So much about the meaning of the fresco. From the artistic viewpoint — which is the most important one — the fresco displays a truly astonishing originality of conception and power of execution. The artist has given a different content to almost every single figure. A small figure (in fact, we have one or two girls aged between 12 and 15) carries her full basket upon her shoulder. As her arms are neither long enough nor sufficiently experienced, she has tied a small length of rope on the handle of the basket. So the basket is carried upon the shoulder, supported by one hand, while the other helps to

keep it balanced with ease by means of the rope which has been passed over her head.

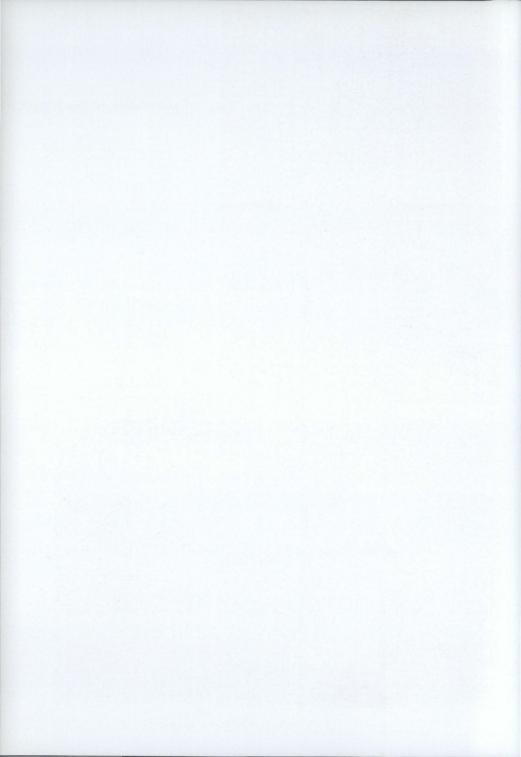
«Iris» has neither crocus - flowers nor baskets. But the wind and her billowing garment make the composition exceptionally bold and attractive.

The two most delightful figures of the fresco (pls. 59-61, col. pls. B-E) are linked and enlivened by the theme of their conversation. The young girls met while wandering in the meadow and are now exchanging some typically feminine remarks. Perhaps the most innocent question asked is whose basket contains more crocus - flowers. The most surprising appearance, however, is surely that of the wounded maiden. Her hair adorned with twigs, like another Amaryllis or a modern girl celebrating Mayday, she has been upset by an accident. Her precious clasp fell off her hair. She sat down, trying to relieve the pain from her wounded foot with one hand, while knocking her forehead with the other, perhaps in order to express her forebodings.

This fresco from Xesté 3, which is already measuring almost one hundred square metres, has found the Archaeological Service unprepared for its treatment. The limited space available at the Byzantine Museum is overcrowded. The expropriated house at Plaka proved unsuitable and has hindered rather than helped our efforts.

Perhaps there is one solution. But this must be favourably viewed by other competent persons too, in the name of the great heritage of our country's sacred earth.







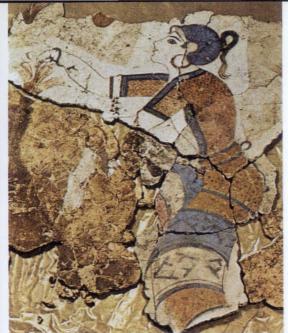
A. A young maiden, conventionally named Iris.



B. A maiden gathering crocuses (detail of pl. C).



C. The crocus-gatherer depicted with another maiden picking crocus stamens.



n



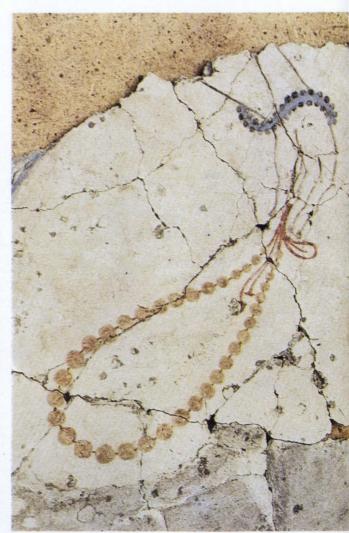
D-E. Details of pl. C.





F. A bare-breasted maiden carrying a necklace (hormos).





G-H. Details of pl. F.



I. A seated maiden.

J. Detail of pl. I.





K. A poorly preserved female figure.



L. A duck from the «thicket of reeds».



a. Xesté 1. The staircase from the North. The right wall has deviated from the vertical both inside and outside.



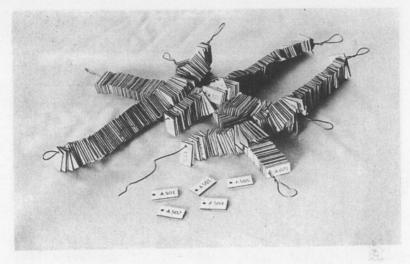
b. West House. The top of the North wall is a shapeless mass, while further down the wall is sound.



a. Xesté 3. The North wall is sound above, but has dangerous gaps below.



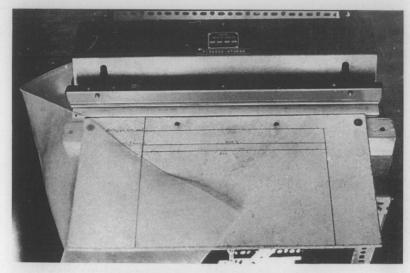
b. Xesté 3, upper storey. Slab-covered floor and door-jamb in situ. The cavity underneath suggests that they rested on a wooden beam.



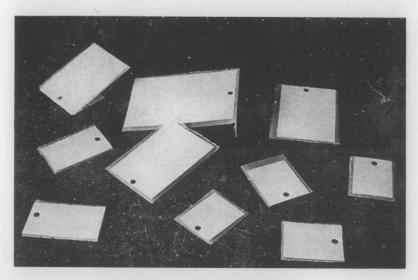
a. Numbers of nylon used in cataloguing antiquities.



b. Numbers and number-recording book.



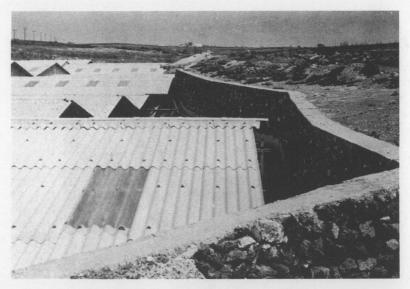
a. Electric appliance producing nylon envelopes.



b. Nylon envelopes containing labels.



a. East view of the South sector of the excavation.



b. South-East boundary of the excavation viewed from the South.



a. Well 54. Alternating layers of pebbles and mud.



b. Well 58. Alternating layers of aspa.



a. Well 58. Fallen stones lying at a considerable depth.



b. West end of the Akrotiri village. Neat stone structures in the fields.



a. The South cliff of the Akrotiri light-house.

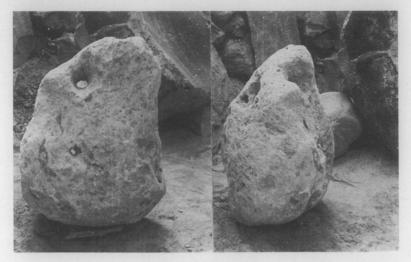


b. Early Cycladic vase which contained the remains of a newborn baby.





a-b. The ravine of "Kalamia", near Akrotiri. The site shows traces of a Minoan settlement.



a. Anchor of limestone.



b. A pierced stone.



a. Xesté 5 (?), to the North-East of Xesté 2.



b. The Room of the Lilies ( $\Delta 2$ ) photographed from the East to show the niche and the beam-holes.



a. The niche (treasury) of the Room of the Lilies.



b.  $\Delta 2$ . Uppermost section of wall showing an upright slab.



a.  $\Delta 17$ . Floor section: stones, middle layer of earth, beaten earth.



b.  $\Delta17\alpha.$  Centre of the room. A jar, a ewer and a pestle.



a.  $\Delta 17\alpha$ . Bronze ewer lying among the debris.



b. The bronze ewer as unearthed from Room  $\Delta 17\alpha$ .



a.  $\Delta$ 17. Fresco fragment with osier branch.



b.  $\Delta 17$ . Weight (half-talent) and stone vase.



a.  $\Delta 17$ . Collapsed floor of the upper storey. The first pottery finds are visible below.



b. Room  $\Delta 17$  after removal of some vases.



a.  $\Delta 17$ . A portion of the heap of pottery. The bottom of a jar contains snails.



 b. Δ17. Western part of the pottery heap. A rhyton in the shape of a boar's head above a table of offerings.



a.  $\Delta 19$ . Flight of steps at the entrance of the Eastern court.



b. Δ9,1. Stored pottery.



a. A9,1. Pottery along the South wall.



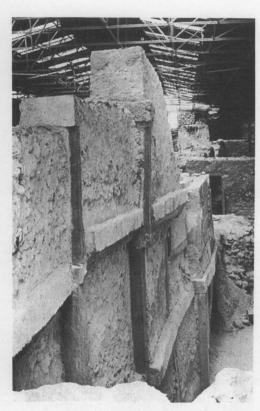
b.  $\Delta 9,1$ . A portion of the piled pottery. Local and imported one-handled kyathoi. Next to them, an upright Syrian pithos with lid.



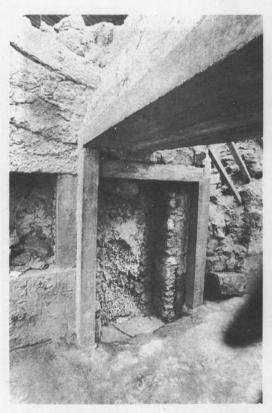
a.  $\Delta 9,1$ . Skeleton of a pig lying on the floor.



b.  $\Delta 9,1$ . Detail of the pig's skeleton.



a. Xestě 2. The North façade from the East.



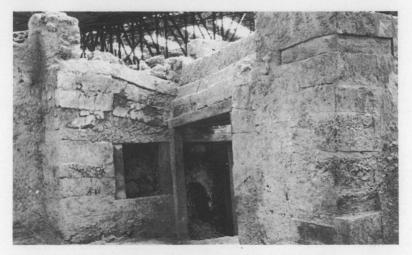
b. Pylon. Doorway giving access to the "staircase" of Sector  $\boldsymbol{\Delta}.$ 



a. South view of the Telchines Road, with the pylon in the background.



b. The pylon from the South.



a. North side of the pylon from the North-West.



b. B1. Photograph taken with wide-angle lens.



a. B1. Beam and wooden pieces of the dorosis.



b. Storeroom in B1.



a. The Western part of storeroom B1, from the East.



b. B2 after removal of the slabs, from the East.



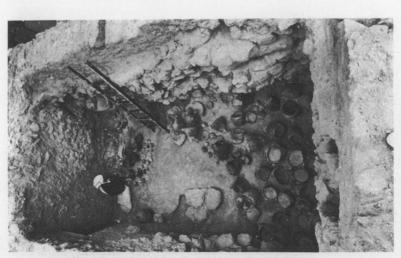
a. B1. The Southern part of the storeroom, from the East.



b. B2 from the South: a large beam-hole under the base of the column, then a layer of mud and a layer of aspa.



b. Corridor between B1 and B2, from the East.



a. B2. The floor from the West.



a. B2. The Western part of the floor full of cooking-pots.



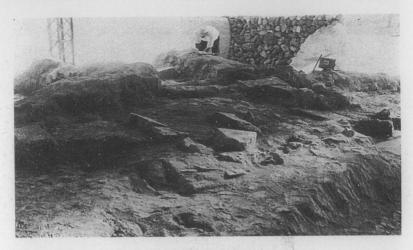
b. B2. The Eastern part of the floor. Cooking-pots, jugs and cups.



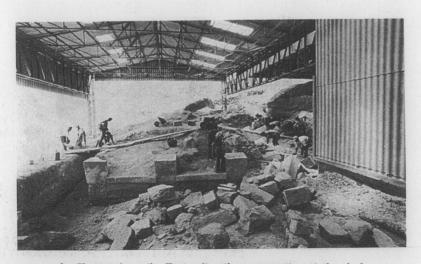
a. Corridor B1 - B2. An imported vase.



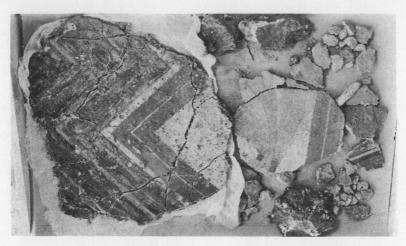
b. Hearth outside the East wall of B2.



a. Xesté 4. Polythyron.



b. Xesté 3 from the East, after the construction of the shed.



a. Xesté 4. South wall (of the polythyron?) with fresco.



b. Xesté 4. South wall. Floral motifs.



a. Xesté 3. Provisional workshop installed at the South-East corner of the ruin.



b. Xesté 3. Staircase. The first flight consisting of seven steps. Part of a bench of the anteroom is visible on the left.



a. Xesté 3. South layer of catastrophe. Tools belonging to the workshop.



b. Xesté 3. Fine pumice and larger pieces of pumice on the catastrophe layer of the North side.



a. Xesté 3. Catastrophe layer of the North side



b. Xesté 3. Window of the staircase, from the East.



a. Xesté 3. Anteroom of the staircase with built benches along the Eastern and Southern walls.



b. The uppermost steps of the second flight of the staircase (there are six steps preserved in all).



a. Xesté 3, 6. The floor is full of vessels.



b. Xesté 3, 6. Two jars and the stone pestle of a mortar which is not included in the photograph.



a. Xesté 3, 6. Ewer mended with stitching.



b. Xesté 3. The polythyron (from the North) with the slab-covered floor of the upper storey.



a. Xesté 3, 3. Underground adyton. To the South above, the slab-pavement of the polythyron (seen from the North).



b. Xesté 3, 3. Underground sacral adyton.



a. Xesté 3. East section of the South wall of the staircase.



b. Xesté 3, 2. Fresco fragment.



a. Xesté 3, 4. Fresco fragment fallen from above.



b. Xesté 3, 4. Fresco fragments.



a. Xesté 3. Room 9, North-West corner. Fresco with rosettes and relief frames.



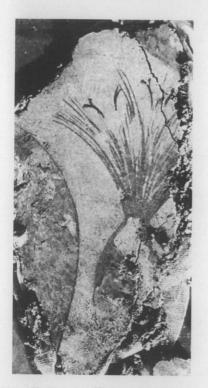
b. Xesté 3, 9. First reassembling of the fresco pieces.



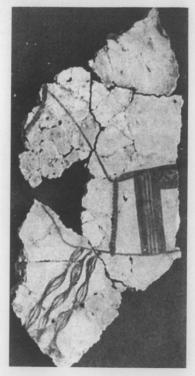
a. Xesté 3, 3. Ducks in the thicket of reeds.



b. Xesté 3, 3. A woman bending to gather flowers.



c. Xesté 3, 3. Cluster of crocuses. d. Xesté 3, 3. A woman's arm.





a.  $\Delta 17$ . An imported matt-painted vase.



b.  $\Delta$ 17. An imported vase with yellow-red burnished surface (Well 62).



c. Treasury of Room  $\Delta 2$ . Ewer in variable «trickle» decoration.



d. Amphora from the «court» of Room  $\Delta 2$  (North-West corner).



a.  $\Delta 9$ , 1. Polychrome spouted ewer.

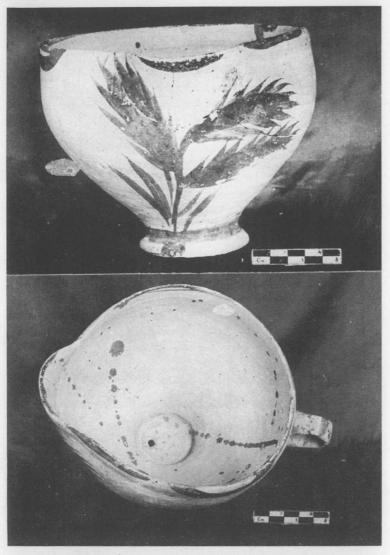


b. Polychrome nippled ewer.



c. Ewer with brown and white decora- d.  $\Delta 17$ . Matt-painted skyphoprochous. tion.





 $\Delta 9$ , 1. Spouted skyphos with brown decoration.



a.  $\Delta$ 17. Twin vessel.

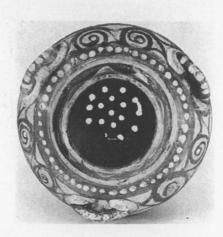


b. Δ9α. Kyathos of black clay.



c-d. Local kyathoi.





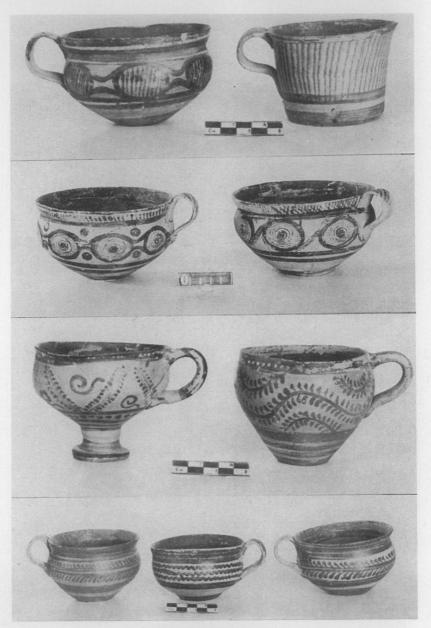
a-b. Ethmopyxis. In this type of vase the bottom is always perforated.



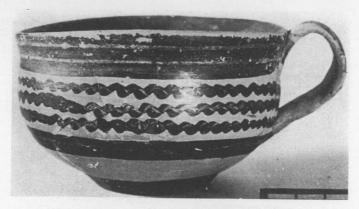
c. The ethmopyxis of the swallows (Xesté 3).



d. Xesté 3. Sherd with bird representation.



 $\Delta 9$ , 1. Imported kyathoi.



a. Kyathos with plastically rendered meander.



b.  $\Delta 9$ , 1. An imported Syrian amphora.



 $\Delta 9$ , 1. Imported kyathoi with foliage motifs.





 $\Delta$ 17. Clay table of offerings.



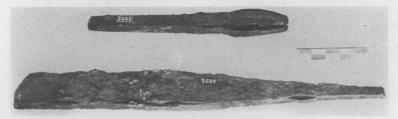
a-b. B1. Lids of clay pyxides.



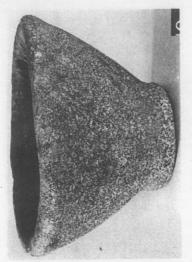
c. Clay vessel (beehive model?).



d.  $\Delta$ 17. Stone implement.



e.  $\Delta 17\alpha$ . Bronze borer and chisel.



b. Xesté 3. Stone vase.



d. Xesté 3. Stone vase.



c. Xesté 3. Stone spouted vessel.

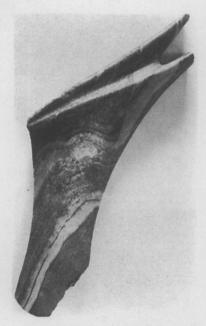




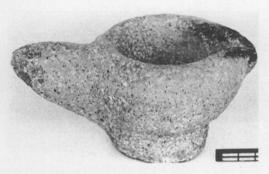
a. Xesté 3. Stone lamp.



b. Xesté 3. Clay lamp.



c.  $\Delta$ 17. Neck of a ewer made of veined marble-like stone.



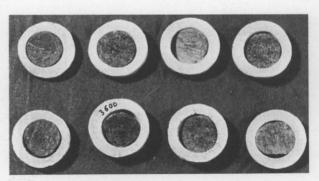
a. Xesté 3. Stone lamp with evident traces of



c. Well 62. A scales' weight of one talent.



b. Xesté 3, South layer of catastrophe. Lid of green faience.



d.  $\Delta 17$ . Eight alabaster disklets each inlaid with a black pebble, apparently belonging to a gaming - board.



a.  $\Delta$ 17. Lead weight of half-talent (15 kgs.) with bronze handle.



c. Grinding stone of whetstone.



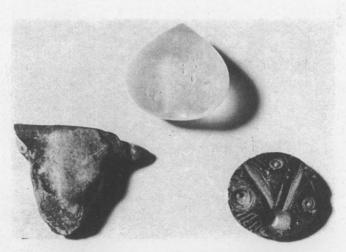
b. B1. Marble grinder.



d. Xesté 3, South layer of catastrophe. Clay seal.



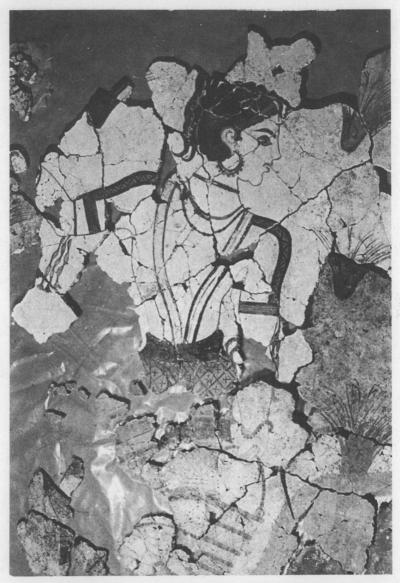
a.  $\Delta 17$ . Rhyton in the shape of a boar's head.



b. Objects in ivory, rock-crystal and steatite.



«Iris». A maiden with billowing peplos.



Young girl gathering crocuses. In the left hand she carries a basket where she places the flowers.



Detail of the crocus-gatherer.



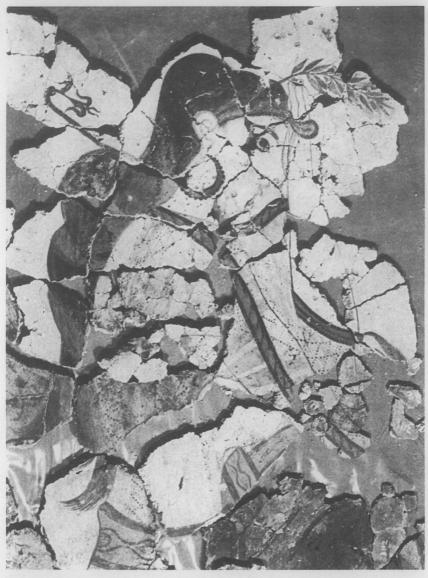
Young girl picking the stamens of crocus-blossoms with the tip of her fingers.



Maiden with full hair and sumptuous dress wearing a hormos and necklace. Her firm breast is exposed.



The young maiden of the previous picture. She comes bare-breasted, holding in the left hand a large necklace (hormos) of rock-crystal.



The young girl has sat down because her foot is wounded. She has a full coiffure and her hair is adorned with a myrtle twig. A gold clasp with iris-shaped terminal is seen over her nape.

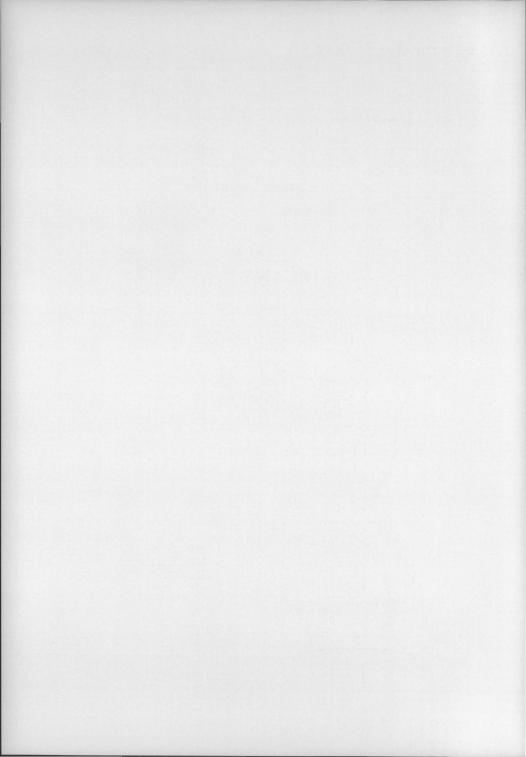


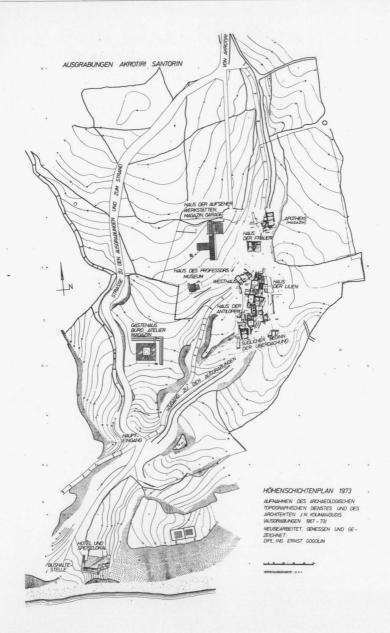
A woman in natural size. Her hair is held in a net (kekryphalos), and her bodice is embroidered with red lilies. She clasps to her bosom an enormous bunch of flowers.

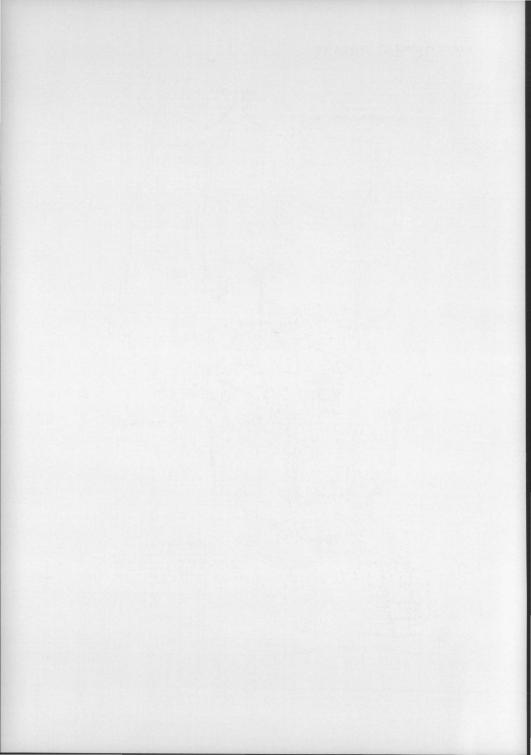


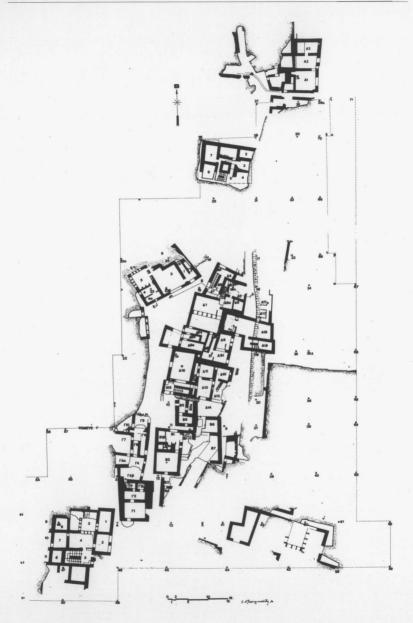
A figure alike to the previous one. Apparently she carries a similar bunch of flowers. Curiously, her features are individual, as if meant to portray a specific woman.

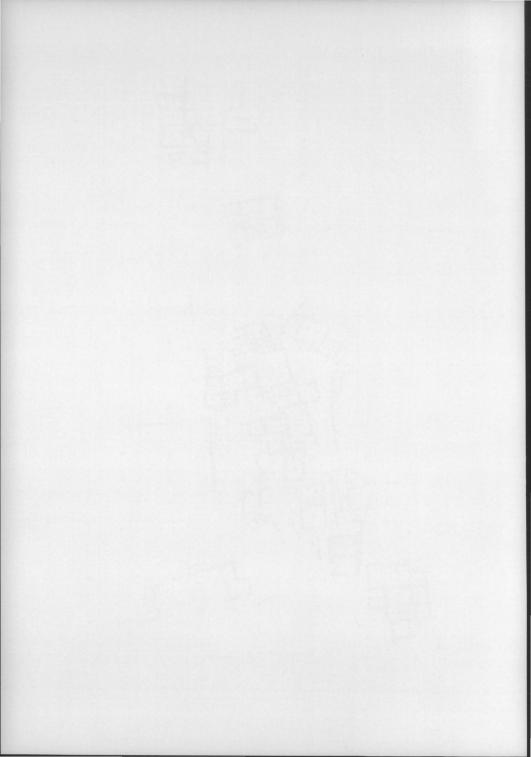
## PLANS



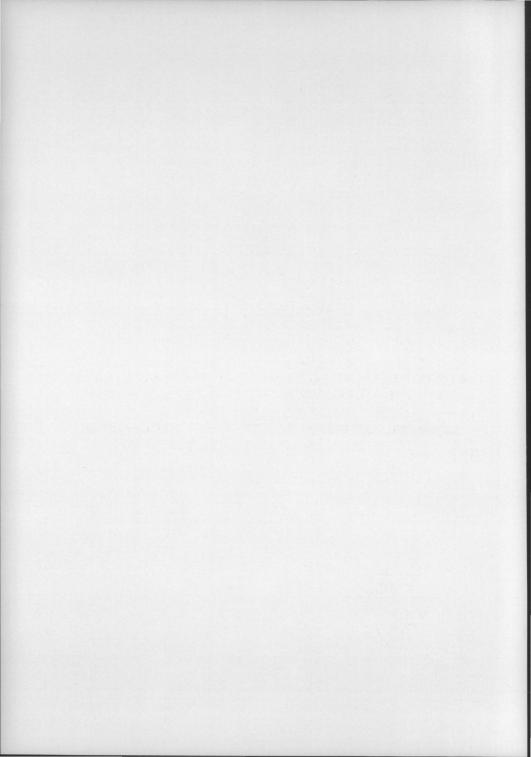












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