

REPORT OF EXCAVATIONS AT VASILIKI, CRETE, IN 1906.

THE SEASON'S WORK.

THROUGH the kindness of Mrs. C. H. Hawes (Miss H. A. Boyd) the permit which was granted to her in the name of the American Exploration Society and which gave the right to conduct excavations on the Isthmus of Hierapetra was transferred to me in the autumn of 1905, and I was thus enabled to continue excavations the following spring at Vasiliki, Episcopi, and on the Island of Pseira. It has seemed best to confine this report to the excavations at Vasiliki, but brief mention may be made of the discovery of Late Minoan tombs at Episcopi, from which some sixty vases of the types usually found in the *larnax* burials of this period were recovered; and also of the evidence obtained on the Island of Pseira, which goes to show that the remains there date mainly from the Late Minoan I and II periods. However, until further work has been carried on, it is impossible to say anything definite either as to the extent or the age of the Pseira site.

The season of work on the Kephala at Vasiliki began April 30 with about fifty men and ended three weeks later and, as well as such a thing can be said of any site, the excavations at Vasiliki may be considered finished. In view of the short time employed, of the limited extent of the site, and of the great havoc wrought by long-continued cultivation, the finds were remarkably numerous. They have confirmed in the main the conclusions formed in 1904 and published in the *Transactions*, Vol. I, Part III, p. 207. Moreover, the discovery of some Middle Minoan houses on the east slope, the existence of which was unsuspected in 1904, has added somewhat to our knowledge of this period in eastern Crete.

There seems little doubt that in the Middle Minoan period the whole east slope of the Kephala was covered with habitations separated by roads, and similar to the Gournia settlement as we see it today. At Vasiliki, however, cultivation and denudation have completed the original work of destruction and it is only on certain terraces where a sufficient depth of earth exists that

we find house-walls preserved. The majority of fields on the east slope are covered with only a few inches of soil and the roughly hewn stones from the destroyed houses are seen built into the present field walls on all parts of the hill. Many of the best finds of the year were made within a few inches of the surface where a European plow would have long ago uncovered them, and, inasmuch as I was shown several places where many vases had been turned up and destroyed, it was singularly fortunate that in such shallow soil two

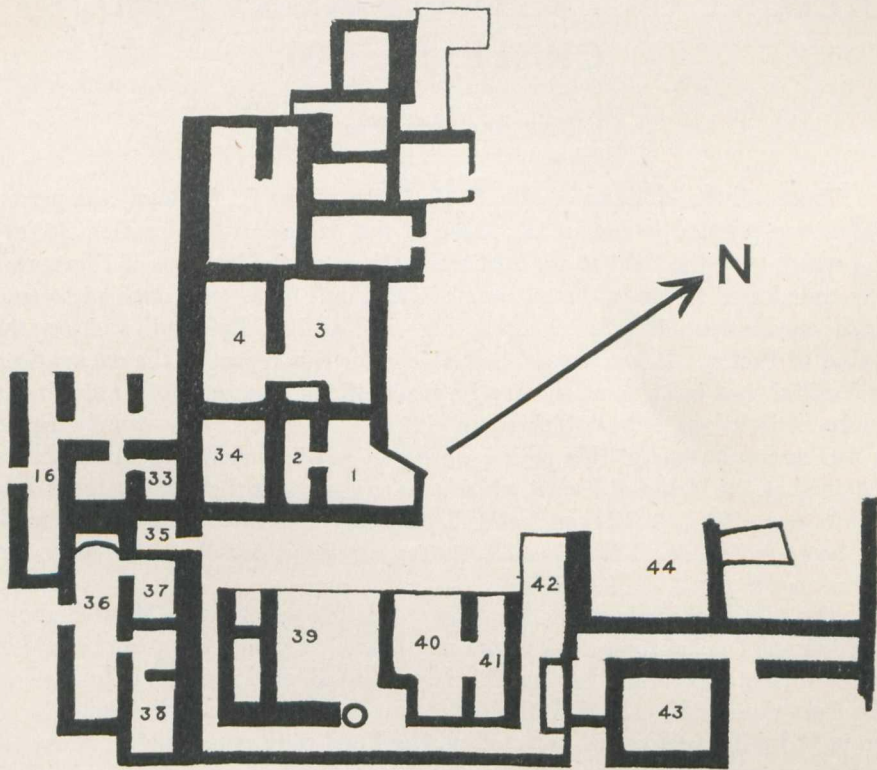


Fig. 1.

Middle Minoan houses should have remained undisturbed, with no signs of either earlier or later walls among their ruins.

The successive settlements on the Kephala are remarkably distinct; in almost every period there is at least one representative house or deposit standing quite apart from earlier or later buildings. For Period III¹ we have the

¹ See below, p. 114.

house on the hill-top (Fig. 1.)²; for Period IV the rock-cut well, and for the Middle Minoan period the houses just mentioned. The first house cleared on the Kephala in 1903 represents the Late Minoan I period, while of much later date are a number of Roman houses built under the edge of the cliff on the west side of the hill. Presumably a Late Minoan III settlement is to be looked for at or near Hagios Theodoros, a fertile hillside high above the Kephala itself where we opened this year a large beehive tomb of that period.

With regard to the architecture of the first three periods there is little to be said in addition to what has already been published. On the northwest side of the house of Period III a large paved court was uncovered, but its western and southern boundaries could not be determined because of the shallow soil and the presence of numerous huts of the Roman occupation. All the rooms uncovered to the north and east of this court seem to belong to the first two periods of building on the Kephala and were not included in the later reconstruction of Period III. Except for a large hand-made cup, a couple of stone celts, and many sherds, these rooms were singularly empty. The exact extent of the buildings of Period III on the Kephala is difficult to determine. It is evident, however, that the big house stood in the center with a few small houses clustered about it and yet the settlement could hardly have been even a village since there are no remains of this period on the lower slopes of the hill and since the paved streets date apparently from the Middle Minoan epoch. The long narrow building (Fig. 1, Rooms 36 to 44) was without doubt a part of the big house. A heavy terrace wall, shallow soil, and a number of carob trees have destroyed the actual points of contact, but a cellar door opening toward it from Room 34 in the main house shows that it was a part of the same structure.

In Period IV the house walls are very poor and are built of small stones, but in the Middle Minoan houses they are indistinguishable from those of Gournia and other sites of the Middle and Late Minoan I periods. One large house (Fig. 8) of the Middle Minoan I occupation was remarkably well built and had several interior walls made of the same large bricks which were common in the big house of Period III. Judging from the solidity of structure as well as from the objects found within, it seems to have been a mansion superior to the neighboring houses.

One change in the previous classification of the first four periods has been rendered necessary by the results of the season's work. Period I, characterized by the prevalence of incised sub-neolithic ware, should be combined with Period II, characterized by the prevalence of dark on light geometric ware. It seems plain from rooms in the northwest corner of the big house and in other places on the east slope of the hill, that these two periods were contemporaneous and that the incised fabrics cannot be said to have preceded the

² For plan of earlier excavations in this building, see *Transactions*, Vol. I, p. 208.

dark on light geometric ware, but rather to have existed side by side with it. In tabular form the periods at Vasiliki are then as follows:

<i>Periods I and II.</i>	}	Knossos Early Minoan II.
Incised and mottled ware is found together with the dark on light geometric.		
<i>Period III.</i>	}	Knossos Early Minoan III.
The mottled ware alone continues in use to the exclusion of all other styles. The big house is built and abandoned during this period.		
<i>Period IV.</i>	}	Knossos Middle Minoan I.
Light on dark geometric ware gradually supersedes the mottled style which is dying out.		
<i>Middle Minoan Houses.</i>	}	Knossos Middle Minoan I.
The deposit in House B is characterized by cups of Class A type from Palaikastro ossuaries (<i>B. S. A.</i> IX, p. 302, Nos. 1 to 6), and by a series similar in shape but decorated with geometric patterns in dark paint on a light ground which closely resemble, in design, the light on dark ware of Period IV.		
The deposit in House A is later than that of House B but is shown to belong to the Middle Minoan I period, both by the extensive use of red paint and by the absence of cups of the Palaikastro type Class B (<i>B. S. A.</i> Vol. IX, p. 302, Nos. 7-13). The occurrence of naturalistic designs would tend to place the deposit at the end of the period.		

This year's work has added a few new shapes to the mottled ware of Period III, but the bulk of the finds merely duplicates those already known.

In regard to the pottery characteristic of Period IV—the light on dark geometric ware, published by Miss Hall (*Transactions*, Vol. I, p. 191)—we have learned much. A large number of examples of this ware (Fig. 4) found in a deep rock-cut well on the east slope of the Kephala constitute the most important result of the year's work. It is the first time that entire specimens have been found in any number, although a few good cups were discovered by the British School at Palaikastro (*B. S. A.* Vol. XI, p. 27 i) last year and by Mrs. Hawes at Hagia Photia in 1904. Our previous knowledge was based chiefly on the large deposit of sherds from Gournia, of which Miss Hall undertook the classification, and, although the new vases from Vasiliki are in the main similar, they show a more advanced technique and a greater variety of shapes.

The tombs at Vasiliki proved to be as elusive as those belonging to the majority of early sites in Crete, and although we spent many days digging trenches in every promising spot, our efforts were in vain. It might naturally have been expected that tombs of Periods I, II, III and IV would be found

under the shelter of the overhanging cliffs on the west slope, but here we discovered only poor Roman hovels, built against the rock along its southwest face, while on the northwest, aside from one house of Period III, there were no signs of human occupation. In 1904 a bone-enclosure was opened on a slope to the south of the Kephala but, except for four undecorated *larnakes*, a carnelian bead, and a small black Middle Minoan cup, there were no evidences as to its date. It was here we had hoped to find other bone-enclosures or tombs, but again the only walls cleared belonged to the Roman period and were connected with a small conduit which supplied the Roman settlement on the Kephala with water from the hills near Episcopi.

Such is the general outline of the season's work and its results. We will now examine in chronological order the pottery and other small objects found.

PERIODS I AND II.

These periods were but scantily represented among the season's finds, and we cannot add anything of importance to what was said in 1904. One vase and a few incised shérds were found in a rock crevice near the well of Period IV to which I have already referred. Under the floor of the big house in Room 34 were found a number of fragments which, when joined together, indicated a large vase of dark on light geometric ware. These fragments represent the highest development of the style of Period II, and in finish, paint, and clay are in no way inferior to the ware of any of the succeeding periods.

The absence of any true neolithic ware and the fine quality of the vases in these early periods at Vasiliki confirm the statement made in the *Transactions* (Vol. I, Part III, p. 219) that the extreme antiquity of the buildings on the Kephala is still open to doubt. In fact, this year's work has strengthened the original opinion that the earliest settlement does not date from much before 2500 B. C. and that in eastern Crete the evidence always tends to shorten the life of the various epochs.

The fact that the mottled ware is in use in the first four periods at Vasiliki means either that it had an extraordinarily long existence, or, what seems more probable, that these periods were of short duration, in which case they could hardly cover the long number of years assigned to them in the Knossos sequence.²

² In Southern India from Tutticorin to Madras the mottled ware of Period III is in common use today among the native population. These Indian vases are identical in all but shape with those from Vasiliki although the paint and polish are a trifle inferior. The description of the probable method of firing used at Vasiliki to attain this mottled surface (*Transactions*, Vol. I, Part III, p. 216) corresponds to that employed in India at the present time to bring about the same effect.

PERIOD III.

About thirty-six specimens of this ware were added this year to those previously discovered. Although there is nothing strikingly new about these vases, one or two shapes deserve special mention. As before, the best specimen, a *schnabelkanne*, came from the big house, but the majority were found in a small passage (Fig. 1, Room 42) just below, in the large building on the east slope. Of the new shapes one is especially interesting, as it again links

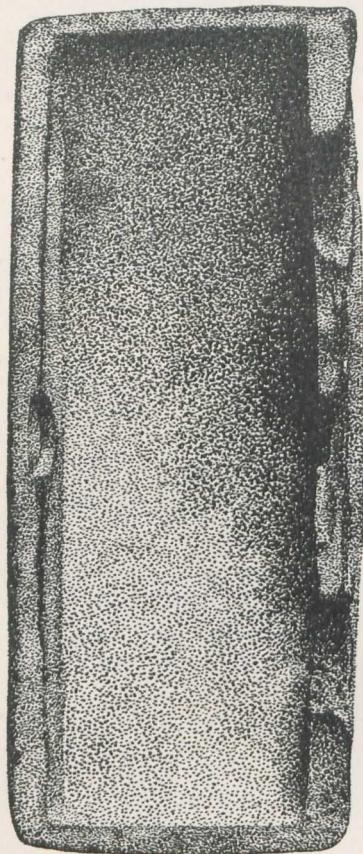


Fig. 2.

Vasiliki with the Zakro burial found by Mr. Hogarth (*B. S. A.* Vol. VII, p. 143). It is a large plate of plain red burnished ware with a small rim spout and lip handle. The specimen from Zakro is identical except that the Zakro plate is larger and deeper. These plates, to judge from fragments, seem to have been one of the commonest shapes in the houses of Period III, but this was the only specimen that was found entire. Another new type is a small boat-shaped dish (Fig. 5 a) which we shall find again among the vases of Period IV. The connection between these two periods in respect to shapes is very close and points to a quick transition from one style to the other. Already upon the vases of Period III, the light on dark technique begins to assert its influence. One unusual vase (Fig. 3 b) seems to represent some animal form and closely resembles a curious set of vases found by Mr. Xanthoudides at Koumasa in the Messara. The other vases from this group repeat the already familiar shapes of the spouted "flower-pot," the bridge-spouted bowl, the "egg-cup," and the side-spouted jar so common in finds of two years ago.

In a house built against the cliff on the northwest side of the hill among objects belonging to Period III was found the bronze mould for an axe-head, shown in Fig. 2. Similar moulds in steatite have been found at Gournia and elsewhere, but never one in metal nor one of so elaborate a character. Only one half remains, but it is apparent that the other half must have exactly duplicated this one. To cast an axe-head, a peg, probably of wood, was first

placed across the middle of the mould, the ends fitting into the notches made for it on either side. The two halves must then have been tied together and the mould set up on edge for the molten metal to be poured in through one of the two circular holes in the side. As the metal ran in one hole the air escaped through the other until the hollow was entirely filled. As soon as the metal began to harden the mould could be placed with its curved side down, in which position four small knob-like legs would hold it steady. When the mould was opened and the charred peg removed, the axe was ready for whatever purpose such axes served in prehistoric Crete.³

Of the stone vases of this period we have learned nothing more and, aside from the bronze mould just described, the only object in metal was a knife blade of an intermediate type between the short triangular daggers of Koumasa and the long slender blades of the later periods.

The Vasiliki vases of Period III correspond in regard to shape to the vases found by Mr. Xanthoudides at Koumasa and by the Italian Expedition in the Tholos of Hagia Triada, but when it comes to technique, the parallelism ceases. The red and black mottled surface appears but rarely at these other sites and seems to have been confined chiefly to the Kephala or its immediate neighborhood. It is not improbable that this style of decoration was peculiar to Vasiliki and that pottery of this type found elsewhere either came originally from this site or was made in imitation of the Vasiliki ware. The shapes of the vases from the early burial at Palaikastro described in *B. S. A.* X, p. 197 are the same as those from Vasiliki, but the finish is different and lacks the hardness and brilliancy of the true mottled ware. The few sherds and the one vase of this fabric found at Gournia are apparently foreign to that site, as has been pointed out by Mrs. Hawes (*Transactions*, Vol. I, Part III, p. 186). It seems strange, however, that the people of a small town should have had the monopoly of so striking a style of decoration, unless we suppose them to have been a colony of foreigners who brought their methods with them from a former home. Where that home might be placed is a difficult question on which it is almost useless to speculate. In the Constantinople Museum there are several vases found near Angora which are identical with the Vasiliki mottled ware; and in general the similarities between Vasiliki and early sites in Asia Minor are too striking to be overlooked. Whether these similarities can be taken as proof that the settlers of Vasiliki were of Asiatic origin it is too soon to say. The question can never be decided until systematic excavations have been commenced on some of the inland sites of Asia Minor, but of this, unfortunately, there is no immediate prospect.

³ It has been suggested by Professors Ridgeway, Bosanquet, and others that these axes are an early type of money and in view of the size of the socket, which is too small as a rule to admit a handle sufficiently strong to bear the weight of a metal head, and of the absence of any signs of indentation or flattening on the cutting edge, this theory seems very probable.

PERIOD IV.

In 1904, in some pits sunk to the southeast of the big house of Period III, we found many sherds of the light on dark geometric ware, published by Miss Hall in *Transactions*, Vol. I, Part III, p. 191, and recognized that this ware was an important factor in the history of the settlements on the Kephala. It was the hope of finding whole specimens of this pottery which led me to continue digging at Vasiliki in 1906, but if it had not been for the rock-cut well (Fig. 1, Room 39) to which I have before referred, I should have been disappointed, inasmuch as the settlement seems to have been only a small one with its houses overthrown and their contents much destroyed. The ground about the pits was carefully cleared, but it was impossible either to piece together any of the smaller fragments found or to distinguish one house from another. The earth at this point was four metres deep; the first two metres were filled with sherds of this ware together with pieces of the mottled ware characteristic of Period III, while in the two metres below, the mottled ware, except for an occasional sherd of dark on light geometric ware, held undisputed sway.

The area in which the sherds of Period IV were found was small, measuring about eight by ten metres. Where the hill falls away to the river, were found Middle Minoan houses which were built, as a rule, on either bed rock or undisturbed ground. The settlement is even less extensive than that of the preceding period and seems to have consisted of poorly built hovels huddled against the massive outer walls of the big house of Period III, already in ruins. Even the room containing the well is of an earlier period, and it is to the fact that this well was used as a dump heap that we owe our knowledge of Period IV.

On the east side of the hill lies a series of rooms (Fig. 1, Rooms 39-41) which open from a small alleyway, running north and south and at one time forming part of the big house of Period III situated just above it. In all the rooms, except those immediately about the well, vases of the mottled style were found in great numbers. It seems that the people of Period IV allowed the entire building to be destroyed, keeping the well open to supply their wants until it became filled with their own rubbish. Much of this must have been thrown in intentionally, since there are no evidences in the uniform deposit of gradual filling. The well lies in a square room (Fig. 1, Room 39) opening off from the narrow alley near its central point. It looks as if the alley had been built for the sole purpose of fetching water, since it ends in a blank wall a few paces beyond. In the crevices of the rock floor of the well-room were found many sherds of the incised grey ware of Period I, but the walls of the room seem to date from the period of the cutting of the well, which we must assume to have been Period III. The presence of a doorway leading from the basement of the big house into the series of rooms, one of which contains the well,

confirms this conclusion. Moreover, the quantity in which mottled ware is found in all parts of the building, leaves no doubt as to its proper place in the Vasiliki chronology.

The sherds from the well were taken out separately, metre by metre, but unnecessarily, since the pottery, except for a few unmixed sherds of Period III at the bottom, was alike throughout. These few mottled sherds help to fix the date of the well. A side-spouted jar of the mottled ware of Period III, on which a design in white had been painted, was found in the lowest metre of soil. Here we see again the transition from the mottled technique to that of Period IV where, although the decoration changes, the shape so typical of Period III lives on under the new order. This vase was found together with others of the fully developed style of Period IV. Moreover, scattered sherds of the mottled ware were found in almost every metre, but in much smaller numbers than was the case in the pits where the cruder light on dark ware, identical with the sherds from the Gournia dump, was found side by side with the mottled ware which at first retained its old popularity. Thus we must suppose that the contents of the well are of a slightly later date and represent Period IV at its highest stage of development when the old mottled fabrics have been practically abandoned for the now highly advanced light on dark geometric ware.

Aside from the evidence of the pottery, one would naturally associate so surprising a piece of industry as this well, which was cut through eight metres of solid rock, with the era of prosperity and with the large well-built house of Period III, rather than with the people of Period IV and their flimsy walls of small stones. Moreover, if the well were made by these last-named people, one would naturally suppose that the building in which it lies would contain some trace of their occupation, but not one piece of light on dark geometric ware was found in any of the rooms except inside the well and close to its mouth. Again, if it belonged to the people of Period IV, one would look to find it beside their own houses on the southeast part of the hill and not in the middle of a room in a ruined building of a preceding period.

At its mouth the well is a metre in diameter, but shortly below the surface it narrows to seventy-five centimetres to expand again to its original dimensions at about two metres from the level of the ground. This may have been contrived to protect the water from the rays of the sun, or perhaps merely due to carelessness, although the precision with which it gradually narrows and then expands, inclines one to the former explanation. For convenience in ascent and descent small notches were cut in opposite sides of the rock walls so that, with a rope to steady himself, a man could climb in and out with comparative ease. At the bottom, the well gradually narrows to the shape of a funnel. The pottery from the well is certainly a little later than the sherds from the Gournia waste-heap and those from the southeast pits at Vasiliki, but the

cups (Fig. 3 a c) with the barred triangular decoration are common to all three deposits, and many of the sherds from the well resemble in decoration those from the other two places.

All these objects were in a marvelous state of preservation. The white paint was hard and fresh and there was no coating of lime to be removed because the well was filled with a kind of slippery mud which could be washed off in fresh water and which left the decoration as clean as when first applied. This wet, sticky earth made the task of clearing the well doubly difficult. It took one workman two weeks to reach the bottom, for the dirt had to be raised a basketful at a time, and to the lack of space in which to work, other difficulties were added as the depth increased—such as want of light and of good air.

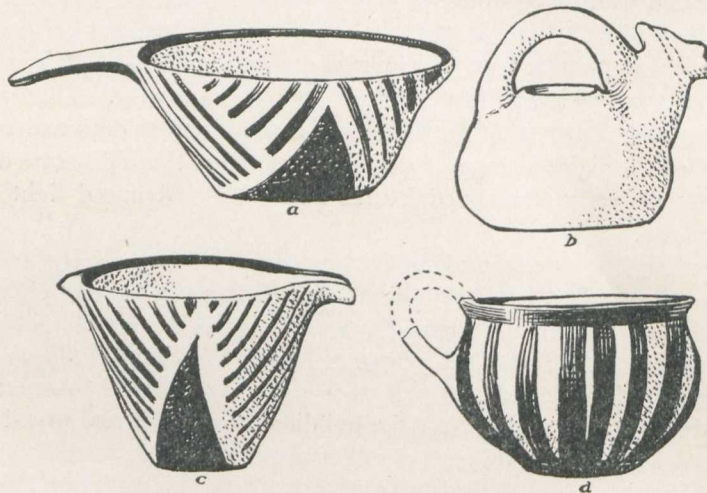


Fig. 3.

The vases are, as a rule, of fine-grained buff clay. The black body-paint generally covers the entire outside of the vessel but never the inside except for a band just around the rim. This rule does not apply to plates nor to low open bowls where the inside is decorated in preference to the outside. The body-paint, owing to imperfect firing, shades from black to brown or red; the decoration is laid on in chalky paint of a yellowish white color.⁴

⁴ In the Rajput States of India the domestic pottery of the people is strikingly similar in decoration to that of Period IV at Vasiliki. The white geometrical design on a red ground is more commonly seen than the white on black, which, nevertheless, occurs. Many of the designs duplicate those found in the well at Vasiliki, and especially noticeable is the frequent use of the cross-hatched circles and lozenges so typical of the Gournia waste-heap. The parallelism ceases with the painted decoration, for the shapes only correspond with those of Period IV in a few cases.

The bases of the cups never show concentric striations made by the use of the string in separating the cup from the wet clay. They seem to have been severed by some dull instrument which has left the bottom rough and without the parallel striations found on Middle Minoan I cups.

The most frequent shape of vase is a small round-bodied cup (Fig. 4) with four small clay knobs set low on the body. These cups are always made of fine clay and are almost as thin as the "eggshell" ware of the Middle Minoan period. In design and finish, they would seem to place the whole deposit at a slightly later date than the Gournia waste-heap and the southeast pits to which they appear to be foreign. They were found in each metre from the top to the bottom of the well. Mixed with them were the more characteristic jars and cups of coarser clay and cruder design. These cups are particularly interesting as they often show a mixture of styles. The upper and lower

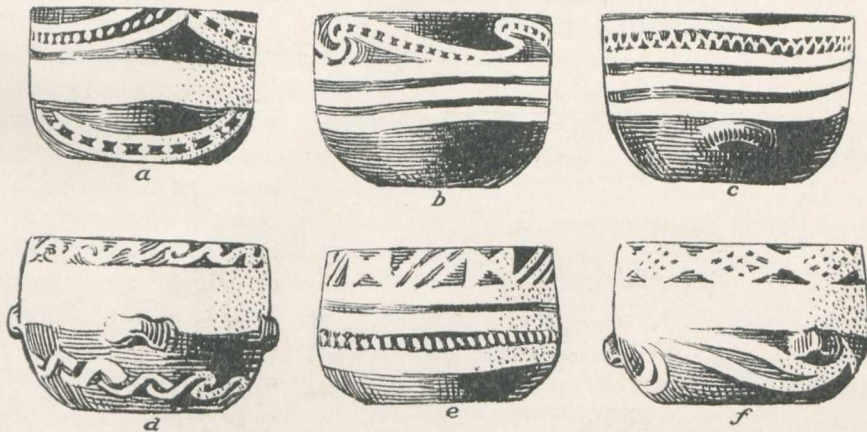


Fig. 4.

parts of the cup are painted black and bear a design in white, while the central band is left in highly burnished plain buff clay (Fig. 4 d). Such combinations of the dark on light and the light on dark techniques increase in popularity as time goes on until, in the Late Minoan I period, the former style prevails to the exclusion of the Middle and Early Minoan light on dark designs.

Aside from these cups, which must be regarded as a further development of the cups found at Gournia and Palaikastro (*B. S. A.* Vol. XI, p. 271, Fig. 5 c), the shapes show a close connection with those of Period III. The spouted "flower-pot" (*Transactions*, Vol. I, Part III, Pl. XXXIV, No. 2) has survived in the many decorated cups (Fig. 3 c). The boat-shaped dish (Fig. 5 a), mentioned among the new shapes of the preceding period, is represented by three specimens (two of which are shown in Fig. 5 b c), while the best preserved of all the large pieces of this period is one of the side-spouted jars

(Fig. 13) which are common in the mottled ware of Period III (*Transactions*, Vol. I, Part III, Pl. XXXIV, Nos. 6 and 7).

Another frequent shape is the hole-mouthed jar (Pl. XXX a), already made familiar by the fragments from the Gournia waste-heap (*Transactions*, Vol. I, Part III, p. 196, Fig. 3). It is derived from the jar figured in *Transactions*, Vol. I, Part III, Pl. XXXIV, No. 4. In another class of vessels we find the Vasiliki flower-pot on a much larger scale; on this type of vase the designs are always of the linear geometric style (Fig. 6).

Some of the following similarities in shape and design to the sherds found at Gournia show that the connection between the two in matter of date must

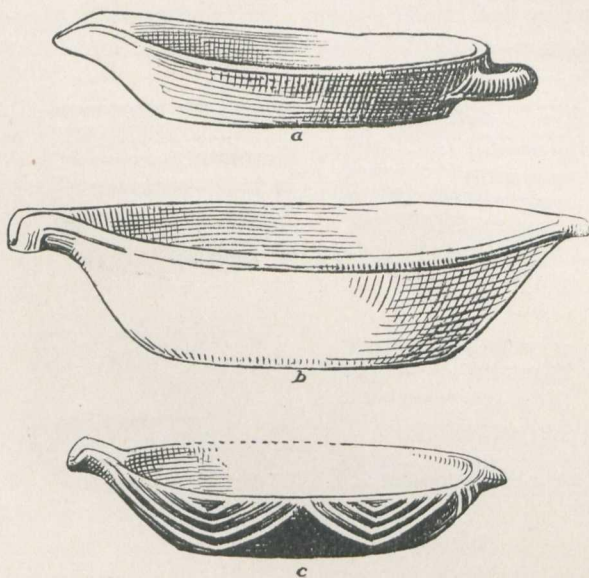


Fig. 5.

have been very close in spite of the evidence of the cups just described. Decorated cups like those in *Transactions*, Vol. I, Part III, Pl. XXVI, Nos. 1 and 2, were found in great numbers. The handle, however, is not round, as at Gournia, but consists of a small clay knob on the rim (Fig. 3 c) or a broad strap handle horizontal to the body of the vase and attached only to the rim (Fig. 3 a). Cups of this type were found at Palaikastro (*B. S. A.* Vol. XI, p. 271, Fig. 5 b) where, I believe, both types, with and

without the strap handle, were represented. At Vasiliki all these cups which have the clay knob instead of a handle have also an open rim spout; they are the direct descendants of the "flower-pot" shape of Period III (*Transactions*, Vol. I, Part III, Pl. XXXIV, No. 2). The round handle was never found except in a few cups of the general type figured in the *Transactions*, Vol. I, Part III, Pl. XXVI, No. 3.

The cross-hatched lozenges and circles, so frequently noted by Miss Hall, are not represented among the vases from the well; but in a large *schnabelkanne* (Fig. 7), found in a Middle Minoan I house, we have one of the best examples of the Gournia style of cross-hatched circular design (*Transactions*, Vol. I, Part III, Pl. XXIX, Nos. 1-8). Whether we are to account for its

presence in a Middle Minoan house by regarding it as a family heirloom or by supposing that the owner found it in digging on the hillside and carried it home as a curiosity, cannot be decided with certainty. However that may be, it furnishes an excellent example of what must be considered the earlier style of Period IV, and comes chronologically before the "eggshell" cups and more conventional designs found in the rock-cut well. Taking the ware as a whole, it is more finished in shape, of finer clay and more regular design than its kindred ware from other sites. The Gournia and Palaikastro vases with their free, careless style of decoration may well be placed at the beginning of the Early Minoan III Period, while the vases from the well with the "eggshell" cups, the conventional designs, and generally finer finish belong more properly to its close.



Fig. 6

The attempts, noted at Gournia, to reproduce animal forms on vases, seem not to have been made at Vasiliki. No traces of them were found on objects from the well. The early exuberance of the period seems to have given way to set forms of decoration which point to a higher stage of development.



Fig. 7.

The obsidian knives are unusually fine; one specimen, measuring 9 cm. in length, is the largest I have yet seen in Crete. No stone celts were found, but the fragments of several stone vases show that the art of stone-cutting had already reached a high level in Period IV.

The connection between Periods III and IV is perhaps more clearly defined in the Vasiliki deposits than is the transition from Period IV to the Middle Minoan epoch. In the first two we find the shapes identical, and the light on dark style of Period IV begins while the mottled ware is still in extensive use. Between the vases of Period IV and those of the Middle Minoan I period the continuance of a light design on a dark ground, characteristic of both, is a strong connecting link, but we notice far fewer similarities in shape than one would naturally expect unless we suppose the change to have been abrupt.

THE MIDDLE MINOAN I HOUSES.

HOUSE A.

On the east slope, some distance from the big house of Period III, two clearly defined houses of the Middle Minoan period were cleared, together with

the much confused remains of several others. In these latter houses there were two fairly distinct levels, the depth of three metres being evenly divided between the two. With regard to the difference in the contents of these two layers, it is difficult to say anything definite. The lower one was characterized by numbers of cups of the type shown in *B. S. A.* Vol. IX, p. 302, No. 4, while cups of the shape of *ibid.* No. 11 were rare in the lower level and common in the upper one. Again, the cups of the lower level were of thin clay and covered with paint of a good quality, red being often used in addition to the white. In the upper stratum not a sherd with red paint was discovered. The black body paint had been burned to a brown or red, but the decoration was always monochrome, which fact confirms what has already been noted at Knossos and

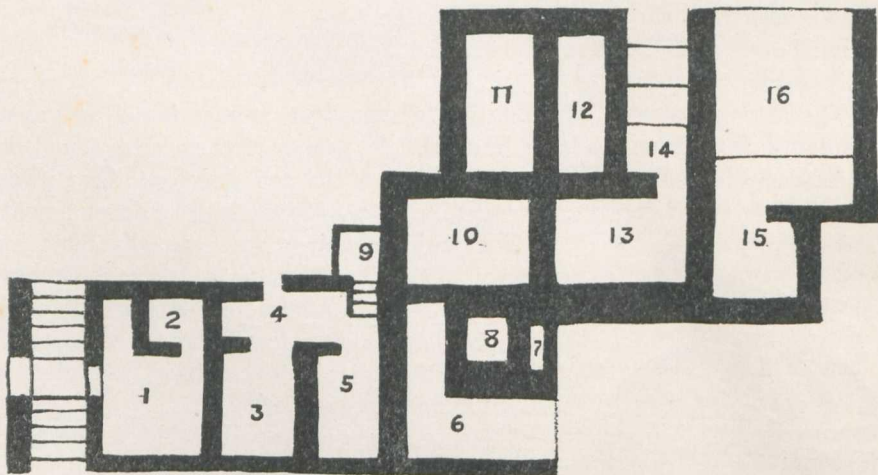


Fig. 8.

Palaikastro (*B. S. A.* Vol. IX, p. 301). Unfortunately the houses of the upper stratum were too completely destroyed to furnish much evidence upon which to base conclusions; aside from a number of cups belonging to Mr. Dawkins, Class B (*B. S. A.* Vol. IX, p. 302, Nos. 7-12), no entire vases were found.

As to the lower stratum (Middle Minoan I) we can speak with greater certainty, since we have two representative houses which luckily escaped subsequent rebuilding. One of these, House A, is a large, well-built structure (Fig. 8) on the northeast slope. A part of it runs beneath the foundations of the Late Minoan I house excavated in 1903. The northeast corner of the house was much disturbed by a heavy terrace wall and a portion on the southwest had been destroyed by denudation. It seems to have formed a large rectangle (20 m. by 12 m.) and to have stood at the junction of two streets, the one running along the hill north and south, and the other ascending the hill in

steps from east to west. The entrance is on the last mentioned street, but all the rooms in the vicinity were empty except for a few sherds and broken *pithoi*.

Room No. 12 was filled with numbers of plain red and black cups. The only decorated vase discovered was a fine specimen of Middle Minoan art, which, however, was badly worn (Pl. XXXII). It is a tall slender type of the hole-mouthed jar and is decorated with stalks of red and white lilies, the broad leaves of which curl about the body of the vase in a life-like manner which is very refreshing after the set geometric style characteristic of the preceding periods. The vase is a good example of the curious Middle Minoan practice of strict alternation of colors; thus we find two white and then two red flowers growing upon the same stalk.

From the same room comes a small cup of the shape shown in the *B. S. A.* Vol. IX, p. 302, No. 5 a. It is covered with a kind of iridescent paint which seems to have been peculiar to this house inasmuch as it was not found elsewhere on the Kephala or, so far as I know, on other Cretan sites. The paint is thin and hard, sometimes pink, sometimes blue, as the light happens to strike it; when dipped in water and placed in the sunshine, it gives somewhat the effect of a modern *cloisonné*. The fact that many of the vases of this house were covered with this peculiar paint leads one to suppose that the maker was a potter who made this ware his specialty. Further, the great number of bowls and lamps of exactly similar shape and design found in Room No. 16, make it probable that we have to do here with a shop as well as with a dwelling house. The iridescent cup, the bowl of which is decorated on the inside with a number of crosses in white paint, is typical of the favorite style of the period when cups and open bowls of the better class of ware were ornamented within as well as without.

From the room in the northwest corner of the house, No. 16, came an astonishing set of bridge-spouted bowls, fifteen in number (Pl. XXX b), and five stone lamps. The objects discovered in this house seem to have fallen from an upper story and were found embedded at various depths in a huge mass of the same clay plaster which so impeded our work in the big house of Period III. This clay formation must be due to some peculiar quality of the soil of the Kephala for it was found in houses of all periods, whereas at Gournia it was unknown. As a preservative for painted pottery this plaster is unequalled; this set of bowls emerged, after a good deal of patient effort, in a marvelously fresh condition. The white paint, generally so friable, stood the process of cleaning remarkably well. These bowls have none of the beauty of the tall jar just described, but they are none the less important. On some of them the bands are painted red and on others white, which shows that these two colors were equally in favor during this period. One vase is especially curious for, instead of the usual black background for the white and red paint, we have what appears to be a poor yellowish imitation of the mottled ware of

Period III. Without doubt it is an attempt to reproduce the original ware, specimens of which must have been frequently turned up in laying the foundations of new houses. It is evident, however, from the poor success of the imitation, that the secret of the brilliant mottled surface had long before been forgotten. One of these bowls and a very metallic-looking amphora are covered with the iridescent paint before mentioned; in the case of the latter, the effect is so successful that at first glance it might easily be mistaken for a vessel of bronze. From the same room comes the small jug with the plume pattern (Fig. 11) which is characteristic of the Middle Minoan period at Vasiliki and which, together with the scrolls and chevrons, seems to have been the favorite method in which dark paint on a light ground was used.

The remaining vases are of slight interest. They include a large dipper in poor clay found with the broken *pithoi* in Room No. 3, and an ugly squat jug with an irregular decoration of loops and bands in brownish paint. The vases with dark designs on a light ground are usually, both in clay and in finish, inferior to the black vases with white and red decoration. We must consider the first as the common cooking ware, while the second represents the better class of vessels in use in the Middle Minoan period.

Two of the five stone lamps could be preserved, but the three largest, all of which belonged to the pedestal type, were so rotten that it was impossible to do more than to measure them. The biggest showed a diameter of 62 cm.

HOUSE B.

This house lies just below the pits belonging to Period IV on the southeast part of the site and must have opened into a small paved street that once ascended this slope of the hill. The building was much overthrown owing to the shallow soil; in fact, only four rooms remained in an undisturbed condition.



Fig. 9.

In one of these a great mass of pottery was found within 15 cm. of the surface. The whole deposit measured only 60 cm. in depth. Owing to this scanty covering of soil the paint and clay were in a very bad condition and a perfect vase often fell to pieces with its own weight as soon as taken from the ground. Fifty-seven cups and vases were saved, while forty others, repeating the same types, were too rotten to admit of any attempt to restore them. Luckily the

decorated objects are usually in finer, stronger clay, and it is to this fact that we owe most of the vases described below. Aside from this deposit, nothing was found except a few vases lying together in an adjoining room. These were the large *schnabelkanne* of Period IV (Fig. 7) which I have already mentioned, some undecorated cups, two *pithoi*, a hole-mouthed jar, and a large two-handled cup with a fluted edge in fine black painted ware.

The most noticeable objects from this large deposit are the cups (Figs. 9 and 10), which are new to Middle Minoan sites in eastern Crete. They are the typical shapes of the Palaikastro ware Class A (*B. S. A.* Vol. IX, p. 302, Nos. 1-5), but instead of the usual black ground with red and white decoration, these cups show a buff clay covered with a colorless paint, slightly polished, on which are applied geometrical designs in brown or black, some of which recall the linear styles of Period IV, for example, Fig. 9 c with the barred triangles around the rim might pass, if it were not for the color of its decoration,

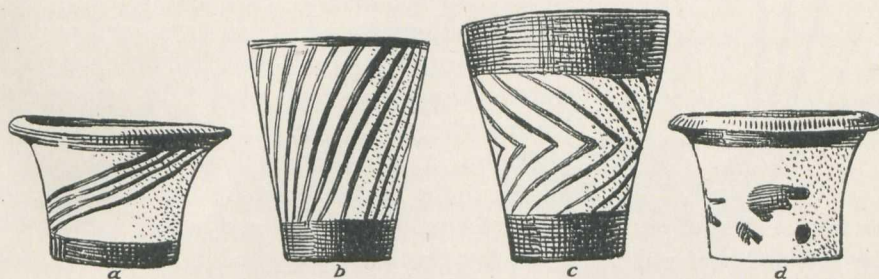


Fig. 10.

and for its handle, as a cup of Period IV; its shape corresponds to that of the cups with strap handles shown in Fig. 3 a, and in *Transactions*, Vol. I, Part III, Pl. XXVI, No. 1 and Pl. XXVII, Nos. 1-4. Fig. 10 c bears varieties of the horizontal chevron which is also found in Period IV (*Transactions*, Vol. I, Part III, Pl. XXX, No. 6).

Fig. 10 a, b show groups of oblique lines common on all small jugs of the Middle Minoan period (*J. H. S.* Vol. XXVI, p. 249). Fig. 10 d is an example of the spatter pattern, also a favorite mode of decoration for large jars in all periods. There were four examples of the plume jug (Fig. 11), but only one could be preserved. A large amphora, very much rotted, was covered with a bold scroll pattern, a design very common on large vases of this period.

Perhaps the most striking specimen of all is the large cover (Fig. 12) with a knob handle in the center. The decoration on the top is a complicated one, but characteristic of this class of dark on light ware. Three circular patches of paint are joined to one another so that each forms one corner of a triangular

design, the circular patches being, in reality, running spirals filled in with paint. From the sides of this design, irregular groups of fine lines run off to the edge of the cover; the sides are filled with long slender chevrons much like those seen on the cups (Fig. 10 c).

The vases, as I have said, are apparently a new style. If it had not been for the distinctly Middle Minoan I cups (Pl. XXXI, Nos. 1 and 2) found with them, it would have been difficult to decide to which period they rightly belonged. The fact that the slender black cup shown in Pl. XXXI, No. 1—which is very like Middle Minoan I cups from other sites—was found partly inside the cup in Fig. 10 c leaves no doubt as to the proper place of these vases in Cretan chronology. The plume and the scroll designs are frequently found throughout the Middle Minoan period, but, like the drip and spatter pattern, they seem to have lived on long after the true Kamares fabrics had died away and thus in themselves they cannot be regarded as indisputable evidence as to date. As was the case in House A, the dark on light ware is always inferior to the light on dark Kamares fabrics. On

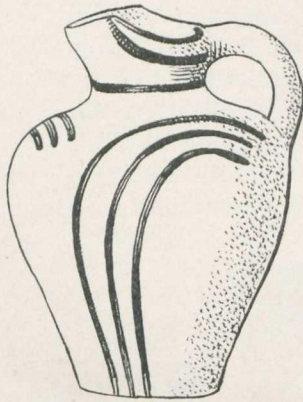


Fig. 11.

the former class of vessels we find the paint carelessly and hastily applied, the clay soft and poor and the shapes less regular and finished in appearance than in the latter class. The two cups (Pl. XXXI, Nos. 1 and 2) are representative specimens of the better class of ware and are very similar to the beautiful ones from the cemeteries at Palaikastro (*B. S. A.* Vol. IX, p. 305). No. 1 is a common type of which several other vases in a more or less fragmentary condition were found on various parts of the hill. This specimen is unusually ornate; its decoration includes the swastika, a symbol which seems to have occurred frequently on the Middle Minoan I ware of Vasiliki, but which is not found in any of the preceding periods.

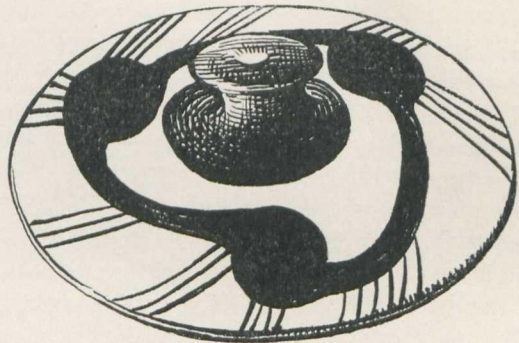


Fig. 12.

No. 2 in Pl. XXXI, an exquisite cup with fluted edge, is decorated with strange collections of geometrical designs which are peculiarly the product of the Middle Minoan period. The strict alternation of colors is again noticeable; a

figure in white is always followed by a figure or figures in red until the original white figure reoccurs. On the inside of the rim an unintelligible clay handle has been fastened, so small that it could not possibly have been of use. It is doubtless to be regarded as the survival of a handle characteristic of the metal prototype of this cup. The other cups from this deposit are either made of plain clay or are covered with a dark ground paint on which a white festoon is painted, sometimes upon the body, or again below the rim inside.

It is interesting to see the first evidences of the great change from geometric and conventional designs to the naturalistic style which reaches its fullest development towards the end of the Middle Minoan period. The Middle Minoan artist is still more or less influenced by the geometric tradition, but by slow degrees he is becoming emancipated and except for the chevron and an occasional cross-hatched triangle he has almost abandoned the rectilinear for the curvilinear style and even this disappears as the period advances to make room for the naturalistic motives which reach their best at the dividing line between the Middle and Late Minoan periods.

The beautiful cup in Fig. 3 d was found in a house across the road from the main entrance of House A. It is interesting as a connecting link with Knossos, where a similar cup is classed among the best egg-shell Middle Minoan II ware from the Palace. The house in which our example was found had been utterly demolished and although many exquisite Middle Minoan II sherds were found, this was the only piece that could be restored. It belongs to the best class of ware of the period and shows the combined styles of the dark on light



Fig. 13.

and light on dark, for white bands, now barely visible, encircled the vase near the rim and base. It gives the effect of a full-blown cup-shaped flower and recalls the steatite blossom bowls where the same floral idea has been worked out in coarser materials. With this vase we must leave the Middle Minoan period and pass over a long space of time to the Late Minoan III beehive tomb at Hagios Theodoros.

BEEHIVE TOMB AT HAGIOS THEODOROS.

Early in May a peasant brought word that in digging his vineyard at Hagios Theodoros, a fertile hillside above the Kephala, he had uncovered the top of a large beehive tomb, and, to my surprise, his story proved true. When we had removed the capping-stone, a large terra cotta *larnax* and several broken

vases were plainly visible above the small quantity of earth which had sifted inside. As soon as the opening was large enough to pass through, it was seen that the burial had already been disturbed. The bones and vases were broken and strewn about the floor, but the robbers, who must have entered through the doorway, had built up the entrance on leaving, so that there were no signs from without that the tomb had been rifled. This must mean that the robbery was committed soon after the burial, and that all traces of the secret entrance were concealed in order not to awaken the suspicions of the dead man's descendants. The bones were in a very rotten condition; of the skull only two small bits remained. Judging from the size of the leg-bones and from the bronze dagger found in the *larnax*, the body must have been that of a man. The *larnax* stood against the wall on the left side of the entrance, and but for one or two small breaks in the rim, was taken out entire. It was of unusual size, measuring 1.50 m. in length, 60 cm. in width and 52 cm. in height. The decoration, from long exposure to the air, had practically disappeared except in one place where there were traces of the conventionalized octopus design, so common on Late Minoan III *larnakes*. The fragments of the vases that were lying on the floor of the tomb had suffered in the same way; only one, which happened to have been covered with earth, had its design preserved entire. The floor of the tomb was of yellowish clay covered with about 10 cm. of fine dust in which lay the bones and vases. In the *larnax* itself were a small bronze dagger, a gold pendant, and three carnelian beads which had apparently been overlooked when the tomb was plundered. Whether the beads and the pendant belonged to the same necklace it is impossible to say with certainty, but the shape of the pendant is such that it could not have formed one of a string of similar ornaments. It is pierced through the stem and must have either hung by itself or have formed the central ornament of the necklace to which the carnelian beads belonged. Like most gold ornaments of the period, it is hollow, the decorated face being riveted to the back and sides. The design represents, in a conventionalized form, the Egyptian lotus bud.

The vases are unusually good for so late a period as that to which this tomb belongs, viz., the very end of the Late Minoan III period when the style of art had reached its lowest ebb just before the geometric epoch begins. The best piece is a round bodied stirrup-cup on a small foot decorated with an ornate type of the conventional octopus. The eyes are very large, the body has almost disappeared, while its arms, reduced to two in number, form two graceful spirals on either side of the head (Pl. XXX c). The clay is very fine and hard and quite unlike the soft material used in the succeeding geometric period. Two of the three remaining vases are of basket form, one decorated with the most degenerate of all octopus motives. The body of the animal has quite disappeared, a single arm forming a wavelike pattern around the central part of

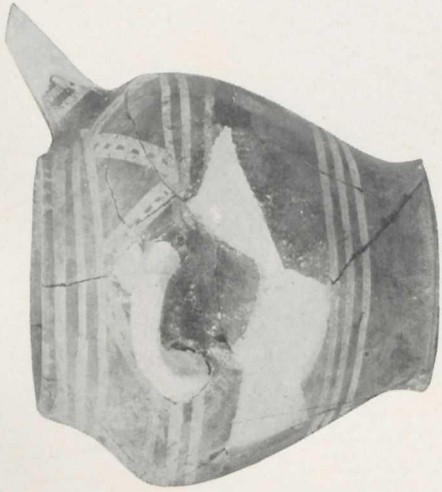
the vase. The other vase, similar in shape (Pl. XXX d) but badly destroyed, bears another design familiar in this late period, viz., that of the Triton shell, the *Purpurschnecke* of Furtwängler and Loescheke, but in this case so conventionalized in form that the original motive can with difficulty be distinguished. The last vase is similar to a Cypriote pilgrim-bottle with no base; it is decorated on either side with a series of concentric circles. Both shape and design are common in the ware of this period. The bones and skull of a dog were found among the scattered human remains. Possibly the animal was offered as a sacrifice, but it is more probable that he was killed in order to accompany his master on his final journey.

This beehive tomb is interesting since it is, I believe, the second of its kind belonging to the bronze age that has been found in Crete. The first was found at Palaikastro in 1902 (*B. S. A.* Vol. VIII, p. 303), where it seems to have been an innovation which did not meet with much success. The architect of the tomb at Vasiliki did not make the mistakes in construction which caused the collapse of the tomb at Palaikastro. The roof was as firm when we opened it, as on the day when the capping-stone was put in place. The dromos was short, about three metres in length, and the doorway, 80 cm. square, was just large enough to allow the *larnax* to be taken in and out, which proves that it was not necessarily put in from the roof as in the case of the similar geometric tombs found near Kavousi by Mrs. Hawes. The wall blocking the doorway was made of small stones built against the outside faces of the three big slabs forming the lintel and jambs. There were no remains of any sort outside the tomb-chamber. Unlike the other tombs of this period, this seems to have been an isolated burial. The diameter of the chamber was two metres; the walls, composed of large flat stones, laid in overlapping courses, came together at a height of 1.80 m. from the floor. No stones had fallen inside and the breaks in the rim of the *larnax* must have been caused by the plunderers. Since the capping-stone was large and heavy and since, after its removal, the upper circle of stones had to be partly removed before anyone could descend into the chamber, it seems probable that the previous entrance was made by the dromos, especially as anyone wishing to work quietly without attracting attention would not attack stones which took four men half an hour's hard work to remove and which he would be obliged to replace. The wall of small stones blocking the door could be easily rebuilt, so that it is probable that the robbery was committed before the dromos had been allowed to fill with earth when no digging would have been necessary to reach the entrance.

In saying that only one other bronze age beehive tomb had as yet been found in Crete, I did not include the *tholoi* of Hagia Triada and Koumasa, which seem to have been huge circular charnel houses in which many bones were piled indiscriminately and which do not appear to have had a roof at all. Such

tholoi are all of a very early period and cannot be classed with isolated burials of the Late Minoan III period, when the roofed beehive tomb seems to have been an innovation in Crete. It was probably copied from a form of sepulchre in common use on the mainland, and cannot be considered as native either to Crete or to the surrounding islands of the Aegean.

R. B. SEAGER.



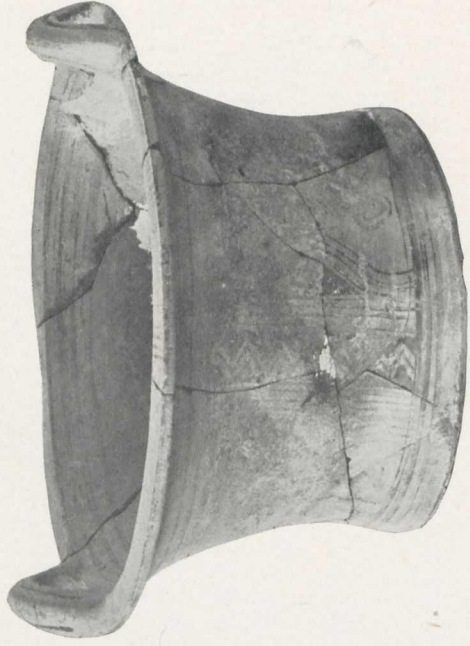
a



b



c



d



1



2

DECORATED CUPS OF MIDDLE MINOAN I PERIOD.



DECORATED VASE OF MIDDLE MINOAN I PERIOD.