

POTTERY FROM ZAKRO.

IN the excavations made by Mr. Hogarth in 1902 at Zakro on the east coast of Crete a very large quantity of pottery was found. The article in *B.S.A.* vol. vii., describing the excavation in general, contains a first report on this pottery, and more recently three vases have been published by Mr. Hogarth in *J.H.S.* xxii. p. 333. The task of making a fuller report was undertaken by Mr. J. H. Marshall, but he was unable to complete it. The preliminary sorting which he had done I found was of the greatest use to me when I began work on the pottery. I have also had the advantage of Mr. Hogarth's advice and correction in preparing this paper, for which I wish to express my thanks.

A reference to Mr. Hogarth's original report in *B.S.A.* vii. p. 121, will shew that the pottery came from several distinct sources. There were (1) the pits, which were found full of sherds, entirely unstratified, (2) a group of houses on the lower spur, described as Houses *A*, *B*, *C*, etc. Besides these an early cave burial afforded some specimens of *grey*-faced incised ware, and two geometric tombs were opened.

It will be convenient to describe first the pottery found in the pits. No distinction is made between the yields of the two pits. The remains shewed no traces of stratification; Kamares and Mycenaean vases were found together. I begin with an account of the Kamares ware found.

POTTERY FOUND IN THE PITS.

A.—*Kamares Ware.*

The general characteristics of this find of Kamares pottery are these. Only a few shapes are represented, nearly all of them small, and of these shapes one, the straight-sided cup described below, outnumbers all the rest put together.

The glaze is generally of a deep purple-black covering the whole surface of the fine red clay. In some cases however this black paint is very thin, and applied only partially, so that the red of the clay shews through. In yet other cases the glaze is light red or pink. These different varieties of glaze are found on vases of the same form. The following types occur :

1. Cups of the shape of the Vaphio gold cups (Fig. 1). These are very numerous. Reminiscences of metal technique are seen in the flat bottom

joining the straight sides at a sharp angle, which is marked by a thickening in the clay as for a join between two metal plates, and in the flat strap-shaped handle. The bottoms of these cups shew the marks of the string used to separate the cup from the clay left on the wheel. These markings appear throughout all the Zakro pottery where vases stand on flat bases and not on a raised ring. They are illustrated by Fig. 2.

The decoration is generally of the tendril pattern shewn in Fig. 1, a pattern specially characteristic of the Zakro pottery, but beside this



FIG. 1.

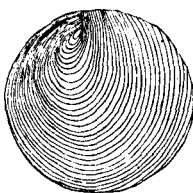


FIG. 2.



FIG. 3.

spirals, festoons, and a pattern of wavy parallel lines are found. Some few cups shew as pattern two big splashes of white paint, one on each side of the cup.

2. Next in order of frequency are small bowls. These range as far as can be seen in their imperfect state from 5.5 to 7.5 cms. in height and from 8.5 to 12 cms. in diameter. Fig. 3 shews a typical example. The lip of the bowl is turned outwards, its bottom is flat. The handle is flat and strap-like, as in the straight-sided cups described above. As with them the entire vase is covered inside and out with black glaze, and the decoration usually consists of the characteristic tendril pattern, which is finished off at the handle by having two tendrils joined by three cross bands, a device which makes the end of the tendrilled branch look like a lily. The upper outside part of the handle bears stripes of white paint, and there are bands (generally two) of the same above and below the tendril pattern on the body of the bowl.

3. Four bowls, whose bottoms only are preserved, shew incised lines drawn round the bowl and picked out with white paint.

4. A group of small vases of the same fine red clay with more or less thin black glaze.

Their shapes are shewn by Figs. 4, 5, 6, 7, 8, 9, 10, 11.

5. The 'hole-mouth' vase shewn in Fig. 12. The clay is covered with thin poor glaze, allowing the red of the clay to shew through. The clay knob on the rim diametrically opposite to the spout is perhaps a reminiscence of a suspension hole.

6. A few fragments of large Kamares vases. The clay is coarser than in the smaller pieces hitherto described, but covered with the same black paint, though generally less lustrous, on which the design is painted in

white. The fragments are mostly mouths of large vases, *Schnabelkannen* and 'hole-mouth' jugs. One amphora-mouth is preserved of the type whose two handles are high up on the shoulder and compress the mouth of the vase into two spouts.

7. A few sherds shewing the geometrical patterns characteristic of earlier Kamares pottery. A further negative point about this pottery from the Pits is the entire absence of any Kamares ware with moulded decoration, though one such piece comes from house K (see Fig. 37 and description below).

8. The broken vase shewn in Fig. 13. There is another handle of such a vase, and a complete specimen has been found at Psycho. The vase



FIG. 4.

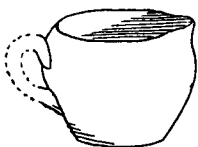


FIG. 5.

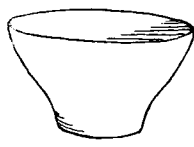


FIG. 6.



FIG. 7.



FIG. 8.



FIG. 9.



FIG. 10.



FIG. 11.

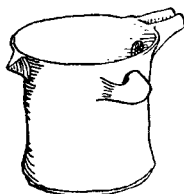


FIG. 12.

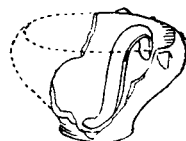


FIG. 13.

is apparently of Kamares technique. The clay is left uncovered except round the rim where there is a wash of reddish-brown hardly lustrous paint. On this are painted rough loop-shaped festoons in white, a characteristically Kamares scheme of decoration. The position of the handle inside instead of outside the body of the vase is very remarkable. The edge of the vase is notched at intervals, the clay at each notch being pinched up into a small lump. I can offer no suggestion as to the use of these vessels.

9. A fragment of a bowl partially covered with black paint, and made of very fine red clay. It is decorated with a spray in white paint. The spray is somewhat conventionalized, and bears pairs of lanceolate leaves, and

between these spikes of small flowers. The design is not in the usual Kamares style, and the fragment stands by itself in this respect. The plant represented is almost certainly the olive in flower.

Of the Kamares ware in general it may be said that only a very small number of forms were found and those not common elsewhere. Among the Kamares pottery found at Palaikastro last year there is only one of the straightsided cups so common here. One bowl from Palaikastro shews a careless modification of the Zakro tendril pattern. Hardly any polychrome work was found; the patterns are executed in simple white upon the black ground. The only exception to this is formed by two or three sherds shewing red paint.

B.—*Mycenaean Ware.*

This ware has been described generally in the first report in *B.S.A.*, vol. vii. Below will be found a detailed list of the principal types found. Amongst a very great number of fragments there were many entire vases. The bulk of them are of the finest Mycenaean technique, with fine slip and lustrous paint.

1. A large number of bowls, mostly in fragments. These bowls have one handle, which is flat and strapshaped. It is put on in the same way as the handle of the Vaphio-type cups described above, and resembles these except that where the handle joins the rim of the bowl a small boss of clay is set in the angle. This boss probably represents the rivet that would be used to fasten the handle in a metal bowl. The rims of these bowls are quite plain and vertical; the bottoms are flat. As far as the fragments permit of measurement these bowls would seem to be some 11 to 14 cms. in diameter and 6·5 to 9 high.

As regards decoration they fall into two classes.

(a) The inside of the bowl is covered with a coat of black paint, and the design reserved for the outside. This bears several concentric bands of paint



FIG. 14.

below, and one round the rim. Between these on the upper part of the bowl is a band of pattern. This is almost always the tendril pattern so common at Zakro.

(b) The outside of the bowl is decorated as in class (a). The inside of the bowl also bears a design. Above a series of concentric rings there is a band of floral design. These patterns are not numerous, and are in general a good deal stylized. Blank spaces between branches of various fixed forms are filled in with rows of half-moon-shaped strokes. Fig. 14 is a development of the inside of one of these bowls which can be restored, and shews the more usual motives employed.

2. Fig. 15 represents a type which occurs also in a few fragments. It is a flattish bowl furnished with two horizontal handles and painted with floral patterns inside and outside.

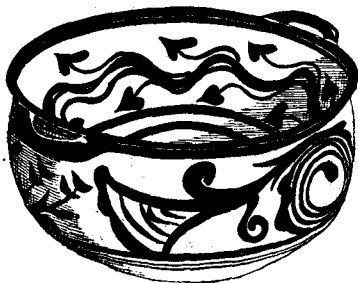


FIG. 15.

3. Fragments of a number of dishes and basins. These generally have a large flat bottom to stand upon and no rim. Besides floral patterns, a characteristic element in their decoration is a running pattern consisting of a series of parallel wavy strokes of paint at right angles to the direction of the pattern. The paint at the edges of these strokes is shaded off a little,

so that an effect is produced not unlike the grain of wood. The derivation of this pattern from the 'waving' made by indentation in the neolithic ware of Crete has been well demonstrated by Mr. Mackenzie in treating of the Knossos pottery in the present volume of this *Journal*.

Under these three heads falls by far the greater quantity of Mycenaean ware from the pits. There remain to be mentioned a number of more or less solitary vases, remarkable for their form or decoration. Three of these have already been published in colours by Mr. Hogarth in the article in the *J.H.S.* already referred to.

Of these three those numbered 1 and 2 in the plate have been fully dealt with in this article. To put them in connexion with the rest of the pottery it only remains to point out the similarity in shape and purpose between the first vase and the strainer shewn in Fig. 20. This resemblance extends to the form of the handles and the external rim round the waist of the vase. The singularity of the arrangement of the decoration on the strainer figured by Mr. Hogarth consists in the presence of the band of white flowers round the body of the vase below the handles, the normal arrangement being that the main decoration is set higher up on the shoulder of the vase and between the handles. This scheme is exemplified in Fig. 20, and on different types of vases in Figs. 23 and 18.

The decoration of the vase numbered 3 in the *J.H.S.* article calls for some further notice as it has not been there dealt with at any length, and it will therefore be mentioned below.

The more important of the remaining vases are :—

(1) The vase shewn in Fig. 16. Fine clay, pale buff slip, and black paint. The shape of this vase is exactly paralleled by one found at Palaikastro.

Its most remarkable feature is the internal funnel, which runs from the shoulder to nearly the bottom of the vase. The bottom is perforated by a single hole, and there is also a hole pierced through the shoulder.

(2) A handleless vase with a perforated bottom (Fig. 17). The leaf-pattern is executed in black paint on a pale slip with a very free hand, so that the stems of the grass-like plant stray beyond their proper limits. This type of vase usually has a flat vertical handle springing from the neck, and has been found also at Palaikastro and Knossos.

(3) The *Schnabelkanne* shewn in Fig. 18. The body of this vase is covered with a fine pinkish slip; on this is laid black paint, covering the neck,



FIG. 16.



FIG. 17.



FIG. 18.

handle, and base, and forming the three-lobed whorls of the pattern. These whorls are picked out with lines and dots of white.

With the decoration on this vase should be compared that on the third of the vases figured in the article in the *J.H.S.* above referred to. The shapes of the vases are quite different but the decoration contains several common elements. The most important of these is the three-leaved whorl, in this vase filled with bands and spots of white, in the other decorated with a lily. In both cases the leaves of the whorl are relieved with white paint. This whorl is characteristically Mycenaean. The whorl is not however always three-leaved; as often as not it has four leaves. In this form it has been found on a large pithos at Palaikastro, again with the leaves relieved with white paint. The other common element is the arched wavy line that in the vase shewn in Fig. 18 ornaments the leaves of the whorl, and in the vase shewn in the *J.H.S.* appears in bands of three or four, forming the top halves of leaves between and below the whorls.

The lily on this vase is the same as that on the vase from Thera figured in Rayet and Collignon, 'Histoire de la Céramique Grecque,' Fig. 12. It also occurs on a Kamares cup found at Knossos, and published in *J.H.S.* xxi. Pl. vi. b.

This flower is probably the natural original of the conventional ornament so common on Mycenaean vases, a form of which is shewn in Fig. 18a. The stalk remains the same; the two side petals are represented by the two volutes. The third petal of the flower is diagrammatically represented by the central lobe of the pattern, whose pointed end, formed by the lines of the volutes, gives the general shape assumed by the mass of stamens and the pistil. It may be that this point is due in part to the pattern being as much a stylized iris as a lily, in which case the point will represent the standard petals and the volutes and central lobe the drooping petals of the flower. The pattern occurs in various forms, some so stylized as to have lost the stalk altogether, whilst others have it growing out of the wrong end.



FIG. 18a.

The importance of this vase shewn in Fig. 18 is that its decoration forms a link between the Kamares and the Mycenaean styles. The buff slip and pattern in black are Mycenaean; the black leaves themselves with their pattern in white are Kamares. The connexion between the two is thus more striking when we recognize in the pattern on the leaves of the whorl a pattern that occasionally occurs on the straight-sided Kamares cups found in the pits. For some of the fragments of these have a pattern consisting of a space filled with dots and bounded, as on these leaves, with a wavy line on one side and with a straight one on the other. Fig. 19 represents one of these fragments.



FIG. 19.

A fragment from the pit also illustrates this point. Half of it is covered with a buff slip; the other half by black paint on which is a festoon pattern in white which occurs on some of the straight-sided Kamares cups. Associated with this festoon are half-moon shaped strokes in rows, a pattern noticed above as characteristic of the Mycenaean bowls found in the pits.

Two objects found are of importance from the religious point of view. One is a small cup of unpainted clay bearing on it in relief a crescent and disk, the disk being immediately above and inside the crescent. The other is a fragment of smooth-faced unpainted pottery with the same device in moulded work, except that the crescent bears incised marks making it look like a cable. This device of a disk above a crescent or pair of horns is paralleled by objects found at Gournia.

POTTERY FROM THE HOUSES.

The greater part of the pottery found in the group of houses discovered on the lower spur at Kato Zakro comes from the two houses named respectively A and I. Its generally late Mycenaean character has been described by Mr. Hogarth in his first report, and it only remains here to describe the more important types represented.

A.—*Painted Mycenaean Ware,*

1. Both these houses yielded several strainers of the shape shewn in Fig. 20, some complete and more in fragments. They are made of a fine clay covered with a shining buff slip. The decoration of this example consists of stripes below and a band of pattern round the shoulder of the vase,

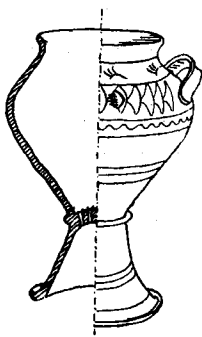


FIG. 20.



FIG. 21.

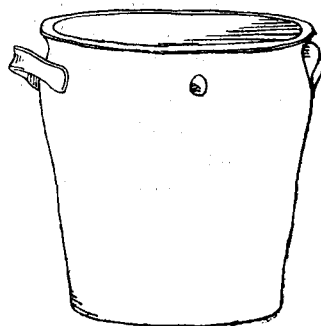


FIG. 22.

executed in bright buff or orange paint. The pattern is as usual picked out with white paint and in this case consists of a row of axe-blades (Fig. 21). It is to be compared with the double-axe pattern shewn in Fig. 24. The shape of the horizontal handles which consist of a flat strip of clay is



FIG. 23.



FIG. 24.

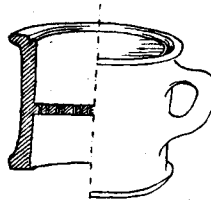


FIG. 25.

characteristic. Midway between the two handles there are little raised bosses. These vases are usually about 16 cms. high.

Similar strainers occur at Palaikastro and at Gournia, but are often much smaller.

2. Of exactly similar technique is the vase from House A shewn in Fig. 22. Three more vases at least of this shape were found in fragments.

3. The same technique is shewn by the vase from House A represented by Fig. 23. The bottom of this vase is perforated. Its pattern is remarkable. Round its shoulder runs a row of double-axes, painted in reddish-orange paint on the buff ground and picked out, as is shewn in Fig. 24, by dots of white. But the double-axe is so far conventionalised as to be treated as a sort of plant, for we see leaves growing from its handle,¹ whilst it is surmounted by a sort of volute. The festoons with which the lip is decorated inside recall a common scheme of Kamares ornament.

4. A fragment of a strainer from House A of the same shape as that shewn in Fig. 25, which comes from a house near the pits, and of the same technique as the vases described above.

This pattern of strainer has also been found at Palaikastro.

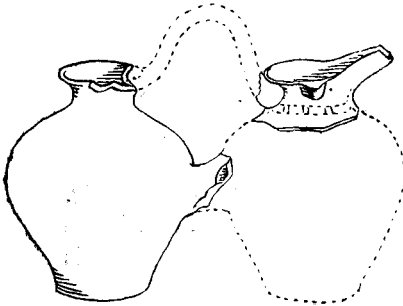


FIG. 26.

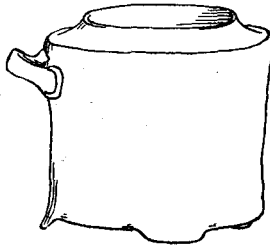


FIG. 27.

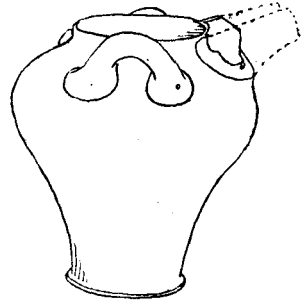


FIG. 28.

5. From House I come the remains of a double vase shewn in Fig. 26. The clay is greyish-green, and there are traces of dull black paint. Exactly similar vases have been found at Gournia. One of the pair of vases has its mouth stopped up, the other has a spout and a strainer in its neck. The two tops are joined by an arch-shaped handle, which is broken away in this instance, but may be safely restored by comparison with the Gournia examples.

6. Some fragments from House A represent a vase that in pattern resembled the vase from the pit shewn in Fig. 18. The pattern is the peculiar three-leaved whorl in black paint, picked out with white, on a ground of buff slip.

7. From House I come two cylindrical vases with narrowed mouths, one of which is shewn in Fig. 27. It has flat horizontal handles like the strainers mentioned above, and rests on three feet. The other example is covered with a pale buff slip ornamented with a fine freely drawn pattern of crocuses. The clay of both is extremely rotten through bad baking.

¹ As in a recently found Knossian treatment of the axe.

8. Both House A and House I yielded spouts of 'hole-mouth' vases and mouths of *Schnabelkannen* of Mycenaean style. Some of these were decorated with black and red paint, sometimes with white added. The upper part of a *Schnabelkanne* thus painted had a raised rim round the neck and three clay knobs on the spout, one on each side and one beneath the lip.

From House G comes the hole-mouthed vase shewn in Fig. 28.

9. From House I came the small jug shewn in Fig. 29. It has yellowish slip, and is decorated with concentric bands of paint roughly laid on, and above them a band of tendril pattern a little different from the form usually found at Zakro. In this form the tendril pattern is found also at Palaikastro, and a precisely similar jug (a little larger) comes from Gournia.



FIG. 29.

10. Fig. 30 shews a large *Schnabelkanne* ornamented with a pattern of spirals round the upper part of the body and having a raised rim round the neck. It is exactly like a vase from Knossos.

11. Modifications of the *Bügelkanne* are shewn by the small vases in Figs. 31 (House I) and 32 (House A). An example was also found in which the handle was reduced to a mere boss. The relation of

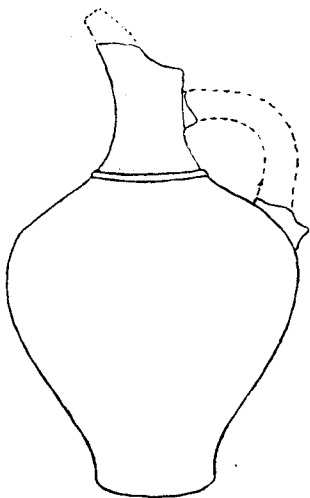


FIG. 30.



FIG. 31.

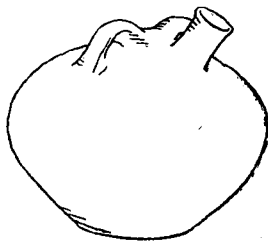


FIG. 32.

these forms to the *Bügelkanne* on the one hand and on the other to the type of vase with a side spout and open mouth crossed by an arch-shaped handle that is so common amongst early geometric vases in Crete, as at Kourtes, is not clear.

B.—*Unpainted Ware.*

A great deal of unpainted pottery was found in the houses. This was made of a coarser red clay, and was clearly the ordinary domestic pottery of the place. The main types were the following.

1. Funnel-shaped kalathos-like vases like those found at Palaikastro. One of the two found was furnished with two handles inside, crossing one another at right angles.

2. Akin to these were the two vases, one of which is shewn in Fig. 33. Their use must have been the same as that of the kalathi, from which they differ in having not so spreading a mouth but an external handle.

3. Fig. 34 shews one of a class of vessel very common on such sites as Zakro and Palaikastro. The fact that the box part of these vessels often shews marks of burning proves that their use was in some way connected with fire.

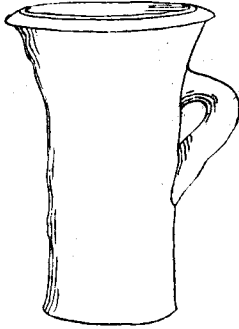


FIG. 33.

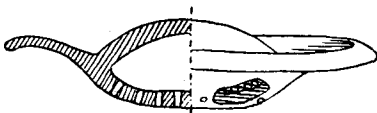


FIG. 34.

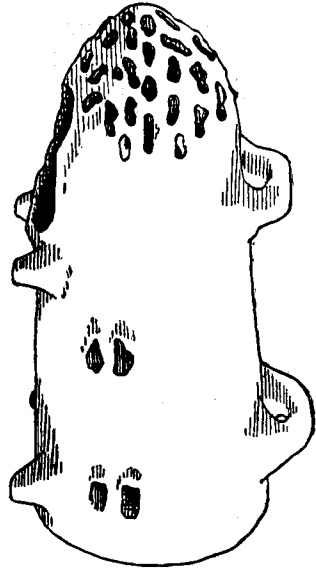


FIG. 35.

4. From House I came the enigmatic vessel figured in *B.S.A.* vii. p. 141 and Fig. 35. The bottom of another was also preserved. The burnt state of this latter and the fact that the holes at the sharp end of the complete example are the same as those in the vessels mentioned just above, *i.e.* one big hole amongst a number of smaller ones, shew that these vessels also were used in connexion with fire. The two handles at the top crossing a longitudinal groove were evidently used for the insertion of a bar, so that the vessel could be moved about when it was too hot to touch. It is possible that they were portable braziers for heating purposes, and used like the *scaldini* of modern Italy.

5. From House I came fragments of a large unpainted *Bügelkanne* with three handles.

6. A number of small (6–8 cm. high) jugs with one handle, and cups with or without handles.

7. House I yielded two amphorae (Fig. 36) with their mouths pinched into two spouts between the two handles which are set high up on the shoulder of the vase. These and another jug from House I with a spout, one handle, and body tapering very much below the shoulder recall very distinctly Kamares forms of household ware.

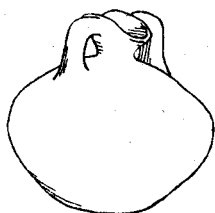


FIG. 36.

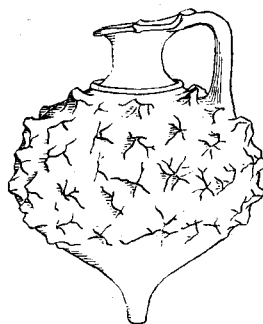


FIG. 37.

From House K came the fragment that made up into the barbotine filler represented in Fig. 37. This is the only piece of this ware found at Zakro. The zone adorned with bosses seems to have been entirely covered with black paint. On the smooth part of the vase the black paint forms a pattern of small sprigs powdered over the ground. This vase is interesting as shewing the survival of the barbotine style of decoration into late in the Mycenaean period. The exaggerated character of the bosses on this vase however clearly shews a much more advanced and even a decadent stage of this style of decoration, if it be compared with the neatness and smallness of the bosses used to decorate the earlier polychrome Kamares ware.

The most important general conclusion to be drawn from this pottery is that, at Zakro at all events, the manufacture of Mycenaean and of certain classes of Kamares ware was contemporary. This is shewn not only by their common use of the same patterns, notably the tendril pattern, but also by the existence of vases which display the two techniques. On these vases, which have the bright buff slip characteristic of Mycenaean ware, a black ground is laid on which a true Kamares pattern in white is painted.

Side by side with this it must be noted that several kinds of Kamares ware do not occur at Zakro. Vases with embossed patterns like metal-work or raised ornament are not found, with the exception of the filler described above. The geometrical patterns of the early Kamares style only appear on a very few fragments. Except a few fragments with red paint the only colour used is white; the yellow ochre found elsewhere does not occur here. This

would tend to shew that these are all characteristics of an earlier school of Kamares manufacture, and that the inhabitation of Zakro is to be placed late in the Kamares period, at a time when good Mycenaean ware was already being made.

It has already been suggested by Mr. Hogarth that the pits were receptacles for accumulations of votive offerings cleared out of a shrine. This is rendered still more probable by the uniform character of the pottery. We have seen that in the pits two classes of vase are immensely more common than the others. These are the straightsided Kamares cups and the Mycenaean bowls. They were not found in the houses, and were therefore not used for domestic purposes. Their uniformity makes it probable that they were regularly used for votive offerings. Religious conservatism would tend to consecrate certain types of vessel for this purpose.

Very little plain domestic ware was found in the pits, such as appeared naturally in the houses. The sacred character of the former is also indicated by the presence of the small cup described above bearing the crescent and disk in relief.

The generally later character of the pottery in the houses, which yet contain specimens of the finer pottery found in the pits, points to the conclusion that the town was continuously inhabited from the time indicated by the earliest ware in the pits up to the time of the desertion of the place, which is assigned by Mr. Hogarth to the end of the Mycenaean period.

The shrine connected with the pits must have been the sacred place of the town. The earlier character of the pottery of the pits is natural. A receptacle for votive offerings would contain more old offerings than new ones, whilst a house contains as a rule only the pottery in use when it was deserted. Still more would a pit used to receive an accumulation of its votive offerings present an earlier appearance. The absence from the pits of votive objects as late in character as the latest ware in the houses is natural if we suppose that the pits contain accumulations for which there was no longer any room in the shrine. For the latest offerings made at the shrine would never have been put into the pit at all.

R. M. DAWKINS.