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Edited by Signe Isager and Inge Nielsen



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The cover illustration depicts the theatre of Delphi.
Photo by R. Frederiksen, see p. 135, Fig. 1.

The “Mystery” of Psathi Some Early Minoan Clay Strips and a Sealing

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Mytilineou
& Erik
Hallager

Abstract

During a rescue excavation at the site of Psathi in Crete in 1980, a large amount of unstratified Pre-palatial material was unearthed. The material consisted mainly of pottery, while it contained also 3,124 small, flat, narrow fragments of clay strips, mostly with string impressions on the surface and often with extra clay applied upon the strings. Such artefacts have to the knowledge of the authors not previously been published from prehistoric sites in the Aegean, and the study of the clay strips, together with practical experiments, leads us to suggest that they may have been used as “buffers” and “stabilizers” when the local poor-quality pottery was fired. In addition to these finds the site produced one of the very rarely found true sealings from the Pre-palatial period in Crete.

Psathi is a low hill by the sea, 6 km west of Khania and belonging to the municipality of Nea Kydonia. In 1980 the site was excavated by the 25th Ephoreia of Khania.¹ The excavators, Y. Tzedakis and V. Niniou, investigated the area by opening trial trenches, which yielded a great quantity of sherds, but no architectural remains. All the pottery was unstratified due to agricultural activity in the area and the natural bed-rock was very close to the surface.

The pottery is handmade and has been dated to the EM IIB period and to the transitional EM III/MM IA period: these are the only periods represented among the Psathi material. The quality, the type and the forms show that the vessels had a mainly practical and strictly secular character and were locally made. A small number of high quality sherds imported from Khania implies close contacts with that

settlement and probably also with Kastri on Kythera. To judge from the pottery, the site of Psathi was a small Pre-palatial settlement with an agricultural economy, which was abandoned peacefully, at least as far as it can be judged by the absence of burning on the sherds.²

The finds from Psathi consisted almost entirely of pottery, but one seal impression was unearthed and scattered among the sherds from all the trenches was 3,124³ pieces of what we have called *teniakia* (ταινιάκια), the Greek word for small strips (ταινία). A *tenia* may be defined as a flat, narrow, curved strip of clay which has been attached to a smooth object by the help of strings, the impressions of which are seen on the surface of the clay and which are often covered with a second piece of clay.

With the exception of a single fragment found at the Daskalogianni excavations at Khania in 1997 in an EM III/MM IA context,⁴ we know of no other prehistoric site in Greece which has produced similar finds. To our knowledge none has so far been found *in situ* and thus only the objects themselves can provide clues as to their function. With eight doubtful exceptions⁵ none of the *teniakia* are complete. The preserved length of the fragments varies from 0.6 to 7.8 cm,⁶ while the width is usually completely preserved; this varies from 0.6 to 3.5 cm.⁷ The thickness of the *teniakia* is typically 0.5–0.6 cm.⁸

After an initial examination we realized that the fragments – although probably coming from the same activity – were of different types, shapes and profiles. Accordingly we defined different criteria, which we thought useful for further

investigation; we examined every fragment and entered all the information on a database.

Description

The clay of the teniakia is probably only one local fabric similar to that of the pottery. In general terms the clay used is fine, in most cases firm and pure, although it sometimes contains relatively large grits. The teniakia were baked in a badly controlled temperature, which resulted in different appearances of the individual pieces. To the eye these fell into six categories: 1. very hard well fired black pieces found on 150 teniakia; 2. a little less hard, but still well fired black to grey pieces found on 708 teniakia; 3. soft grey pieces found on 694 teniakia; 4. hard well fired buff to red in colour found on 518 teniakia; 5. softish, less well fired red/pink to grey colour found on 754 teniakia; 6. well, but unevenly fired pieces which often in the same piece show both black and red colour from the firing found on 281 teniakia. 19 pieces did not fall into the above categories. The pottery from Psathi did not show any signs of secondary burning, while the teniakia often had the appearance of being over-fired.

The teniakia were divided into eight different types or elements according to physical appearance:

Type 1: the pieces where extra clay had been added on top of the string (Fig. 1). 727 (23%) teniakia had extra clay added.

Type 2: the pieces where string marks were visible on the surface of the clay (Fig. 2). String marks on surface were found on 2,149 pieces (69%).

Type 3: flat end pieces, i.e. the end of a teniakia had just been smoothed flat (Fig. 3, bottom row). 218 such end pieces (7%) have been identified with reasonable certainty.

Type 4: raised end pieces, i.e. the end of a teniakia had been pressed against something which gave the end a small upwards bent (Fig. 3 top row and Fig. 11). 249 raised end pieces (8%) were identified

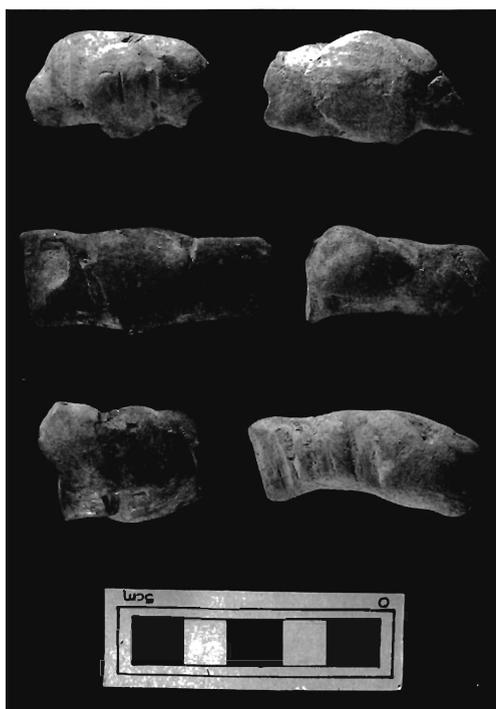


Fig. 1. Six examples of Type 1 with extra clay applied.



Fig. 2. Seven teniakia of Type 2. Upper left is a combination of type 2 and type 7.

with reasonable certainty.

Type 5: consists of a small group of narrow pieces with triangular section and without string marks (Fig. 4, second row, right). Only 30 such pieces (1%) were identified and may be a sub-type of Type 7 cf. below.

Type 6: are flat pieces without string impressions. 391 fragments of this type (13%) were noted.

Type 7: pieces with small depressions probably from fingers (Fig. 4, second row,

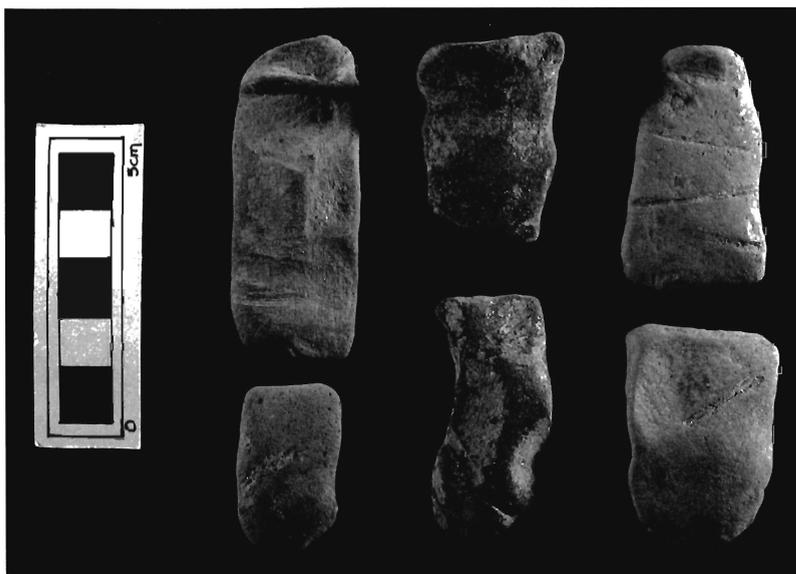


Fig. 3. Upper row: Type 4, end pieces with raised end: bottom row: Type 3, end pieces with flat



Fig. 4. Different shapes of teniakia.

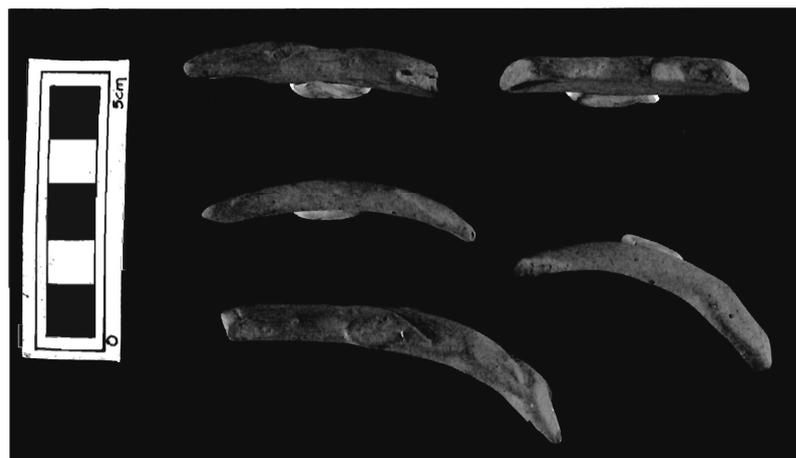


Fig. 5. Different profiles of teniakia.

middle). Such depressions were noted on 293 pieces (9%).

Type 8: miscellaneous pieces, with diverging shapes from the ordinary strip type. Quite often they had been pressed against something giving the teniakia curves in different directions, as if they had been pressed against a spout. 135 pieces (4%) of these anomalies were found.

These eight types or elements more often than not appear in combinations. For example are 249 pieces combinations of Type 1 and Type 2 (Fig. 12), while these combination pieces may be combined with further elements as for example depressions from fingers (Type 7) (Fig. 2 left column, top) or they may be end pieces (Types 3 and 4). With the possible exception of Type 5 (as we have defined it⁹) all sorts of combinations appear, which show that they are all elements that might be found in a complete/ordinary tenia.

The shape of a teniakia varies a great deal, from being straight to almost circular or S-curved. The straight pieces we called strips while the curved ones were subdivided into slightly curved, curved or much curved. Only the Type 8 pieces had a somewhat irregular appearance. The categories are as follows (Fig. 4):

unclear shape	10
circular	50
oval	20
much curved	144
curved	717
slightly curved	369
S-curved	1
irregular	1
strip	1811

Also the profile of a teniakia varies somewhat from almost flat to much curved, while a very few Type 8 were described as being uneven. The categories are as follows (Fig. 5):

unclear profile	1
almost flat	216
slightly curved	481
curved	2148
much curved	275
uneven	3

All teniakia were examined for fingerprints, i.e. pieces where papillary lines could be distinguished. This investigation only took into consideration whether papillary lines could be seen or not. With a few exceptions only a relatively small part of a teniaki had papillary lines (Fig. 4, bottom, right). The result was as follows:

uncertain	33
faint	375
yes	737
clear	36
no	1943

Considering that all tenias were hand-made, very often with extra clay applied, and considering that the tenias were probably a waste-product, which did not require special surface treatment, it may seem surprising that only *c.* 25% carried reasonably clear finger prints. On pieces with depressions from fingers we never found papillary lines – probably because the fingers were squeezed in the clay?

The string marks deserved special attention. In this connection there was one thing we noted from the beginning and which proved to be consistent on all pieces with string marks: in no instance did the string mark reach the bottom of the teniaki. This means that the tenias were applied to objects larger than themselves (Fig. 6b).¹⁰ The string marks run in all directions, i.e. straight across a teniaki, in oblique directions and lengthwise. When more than one string impression is preserved, the strings often crossed each other (Figs. 2 and 9, top). Most of the string marks ran obliquely over the pieces as noted on 1,578 examples, while string marks going across was noted on 696 pieces. What may, at a first thought, seem surprising: as many as 442 pieces had the string marks running along the length of the teniaki. The number of string marks found on a single teniaki varied from 0 (type 6) to 9.¹¹ We also made notes as to whether the string had cut deep into the clay, whether only light traces were seen or whether it was somewhere in between. When more than one string impression



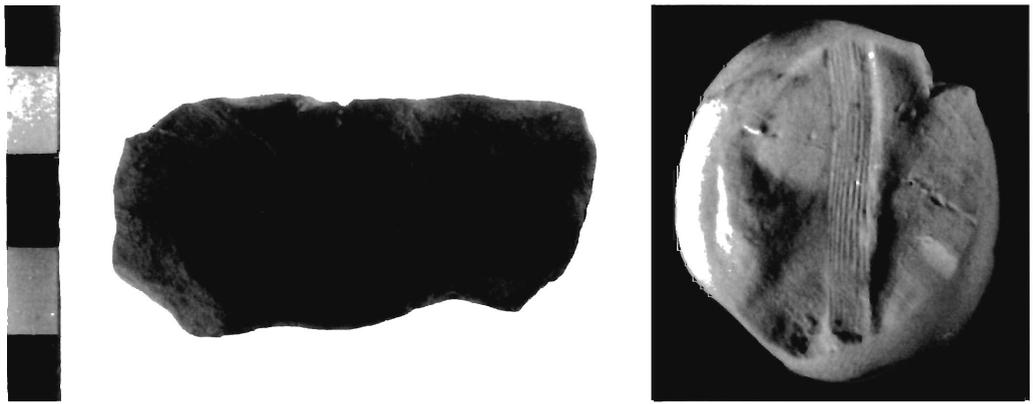
Fig. 6a-b. 15/0346, a Type 1/2 teniaki where the string-hole in the profile is clearly seen not to go down to the edge of the teniaki.

occurred, we often noted differences in depth; for example one string cutting lightly, the other deep (Fig. 7). The three main categories were noted in almost equal amounts (deep: 813; light: 672; medium: 757). In several cases we noted that a finger had been pressed over the string after it was in place (Fig. 7). The strings themselves were apparently of two types: the one a rather simple and fine organic string perhaps strips from palm leaves or “kalami” (Fig. 8a-b) while the other type, for which we have no suggestions, often showed traces of windings.¹² In general the string marks were fine leaving impressions in width from *c.* 0.5 to less than 0.01cm (Fig. 2).

Fig. 7. 16/2229, a Type 2 where the clay has been pressed over one string and where a different depth of string marks is clearly noted.



Fig. 8a-b. 16/0891, a Type 2 with an unusually broad and clear string mark shown in plasticine impression to the right.



When examining terracotta objects with string impressions, one is inclined first of all to study the reverse (or bottom) of the object in order to find out what the object had been attached to. In one way

against which the tenia was pressed must have been relatively smooth. In cross-section the bottom was slightly bent, while the profile varies from almost flat till much curved, cf. above (Fig. 5). Many of the teniakia were worn

Fig. 9. Obverse, profile and reverse of four teniakia.

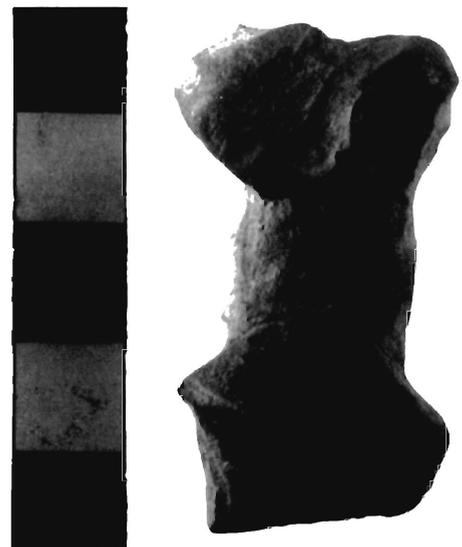


In the preceding discussion the teniakia have been presented as if they were plain or oddly shaped strips, but there are a few exceptions to this rule in that a piece may display three or even four broken ends. Some pieces are broken in a T shape¹³ or a Y¹⁴ (three broken ends), an X¹⁵ or a double T¹⁶ (Figs. 4, upper row, left and 10). These pieces show that in a few cases a tenia is not a single band, but composite bands applied to the object.

All together the 3,124 teniakia have a length of 88.762 m, which means that the

the teniakia were absolutely uniform in that the surface of all pieces were smooth and without impressions (Fig. 9, bottom). This shows that the surface of the object

Fig. 10. A double T- teniaki. Could be compared to what is seen on Fig. 16.



average length of a fragment is 2.84 cm in length and the average width is 1.63 cm. We have noted 468 end pieces or possible end pieces. If a tenia always has two ends and if the collected pieces are representative of what once existed we might argue that the material represents 234 pieces (468 ends/2). Thus the average length of a tenia would be 37.9 cm (8876.2 cm/234) and a tenia piece was broken up into 13 teniakia. As will become apparent below, we believe that this playing with numbers is of little relevance, partly because we shall argue that the tenias were of different length and partly because we do not believe that all tenias necessarily had an end, i.e. they might have been a continuous band around the object.

The object

We believe that what has up till now been described as ‘the object’ is pottery. Pots are curved in all kinds of directions and are bigger than the tenias, which explains why the strings never went down to the edge or bottom of the teniakia. Moreover Pre-palatial pottery often has a fine smooth surface. Pottery would thus fulfil the conditions described above. In addition, we have tried to fit teniakia to Pre-palatial (and later) pottery and it was not difficult to find areas on the vases where the teniakia fitted. This was especially clearly seen with raised end pieces (Type 4) and certain types of handles as well as with “pressed against” pieces and out-curving rims and spouts. In short we believe that the teniakia sat either on handles (both vertical (Fig. 11) and horizontal) or as wavy bands around the upper part of (smaller?) vessels. These reconstructions would be consistent with the string impressions. Thus for example are all 199 surely identified end pieces of Type 4, with the odd exception of 16/1852, with string marks going either across and/or obliquely as shown in the reconstruction. Of the same end-type 56 are more than 4 cm long and they are with one exception all curved in profile as one would expect. Out of the 1230 pieces with a curved

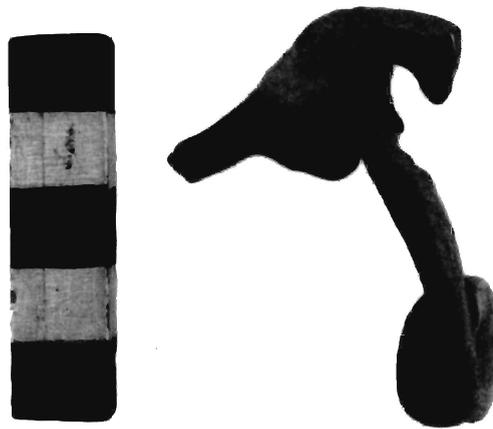


Fig. 11. An uprised end piece (type 4) fitting to a rim/body/handle fragment from Psathi.

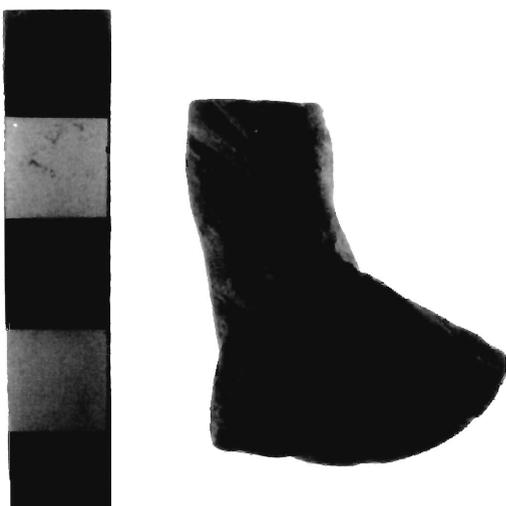
shape, most of which would have belonged to the wavy-band-type, only 227 had string marks going across. These 227 pieces could not, of course, have belonged to the wavy-band type, but might have been sitting on horizontal handles – or perhaps on the side of vertical handles.

The teniakia

If we are right in our assumption that the teniakia were attached to handles and upper parts of vessels, we can be fairly certain that they were not attached while the vase was being made. Firstly, if the clay of both vase and tenia was wet the strings would hardly have been needed, and secondly, traces of tenia impressions would have been found on at least some of the recovered sherds, and this was not the case. It therefore seems reasonable to conclude that the teniakia were added on the vases after they had a hard dry surface.

An early practical experiment with plasticine showed us that strings would be needed while the teniakia were applied to the vases and it seems likely that many of the extra pieces of clay added (and covering strings, Type 1) were added for two purposes. The first would clearly be to keep the string in place during the “binding-up process”; the second to cover string ends, as is shown on some of the pieces where there was only one or three string holes below the added clay. The need to keep several strings in place is, for example, also seen on Fig. 12. The added

Fig. 12. 16/2285 which shows that several strings had been kept in place by the extra applied clay.



clay is thus of a purely practical nature. This feature was found on roughly 1/4 of the pieces. This would seem a large quantity, and would indicate that the “binding-up process” was not always simple.

A few more observations must also be stressed:

- As no care has been taken for their appearance, teniakia give the impression of secular, clearly practical purpose.

- It is obvious that they were intended to accomplish a specific result and not as complete objects in themselves.

- It seems that they were needed for a certain time and not for permanent use, as they were attached with perishable material, namely strings.

- Each tenia could be used only once.

A practical experiment

All the above observations forced us to abandon two ideas we had about the possible function of the teniakia. One was that they might have been applied to the pottery during the firing process to reduce the amount of oxygen in order to give some kind of decoration to the vases – but not a single sherd from the entire Psathi material could confirm this theory. Our second idea was that the teniakia had somehow been part of a sealing procedure: for example, if a piece of gut had covered the rim of the vase and was kept in place by teniakia. But this idea also had

to be abandoned, because not a single fragment of a tenia preserved impressions of folding which a piece of gut (or thin leather) would have inevitably given, when pulled over the sides of a vase. We had other ideas, which also had to be rejected.

At this point, when the hard evidence of the teniakia themselves had reduced all our ideas to nothing, DM contacted a local potter, Aspasia Vasilikaki, to discuss our problems further with her. And this proved most fruitful. Study of the pottery and the teniakia lead to the idea that the teniakia could have been applied to the vases in order to avoid them breaking during the process of firing in the kiln. Such an explanation would not violate any observation we had made, and Mrs. Vasilikaki kindly agreed to make a practical experiment together with DM to test if such a procedure would produce items similar to those found at Psathi.¹⁷

During the entire experiment attempts were made to stay as close as possible to the prehistoric techniques, constructing handmade vessels and using tools and materials which the prehistoric man could find and use. The experiment was carried out in four stages.

Stage 1. Preparation of the clay

On 3 December 1998, AV and DM collected earth from four different places near Psathi (west and south-west of the excavation site). After the earth was sieved, water was added to prepare the clay for the experiment. When the experiment started on 9 August 1999 the clay from Psathi proved to be useless, since it was not homogeneous or plastic at all. Therefore, DM returned to Psathi searching for better earth quality and found a fine earth-like powder from a location south of the site; this material was near the surface, due to the construction of a new road. The earth is yellow with small grey grits. The clay prepared from the new soil was again problematic, but better than the previous ones, so it was used with the addition of red Cretan clay (from Moires in the Mes-sara plain) in a proportion of 1:1. For



Fig. 13. The fourteen vases which came out of the fire more or less complete.

some of the vessels a coarse English clay named “rakou” was also used; this is more resistant in high temperatures.

Stage 2. The construction of the vessels

Fifteen vases similar to Early Minoan shapes were produced in one week (Fig. 13):

- 2 teapots (1 wheel made from *rakou* and one from mixed clay)
- 1 jug (from mixed clay)
- 2 small “jars” (1 wheel made from Cretan clay and one from mixed clay)
- 4 goblets with foot (two from *rakou* and two from mixed clay)
- 6 cups (two from pure Psathi clay, and four from mixed clay)

The forms were not exactly identical to the Psathi ones, but they had the characteristics needed for the *teniakia*: handles, rims, wavy rims, bases and spouts).

Teniakia were applied to two of the vases (one cup and one “jar”) when the clay was still wet, while the remaining vases were left to dry slowly for two or three days. Then the exterior, and interior of the open vessels, was slightly polished with a sea-pebble and olive oil, and in some cases with a light solution of red clay.

Stage 3. The teniakia

The clay used for the *teniakia* was the same as that used for most of the vases, i.e.



Fig. 14. A tea pot with *teniakia* applied in different directions.



Fig. 15. A cup with vertical *teniakia* applied.

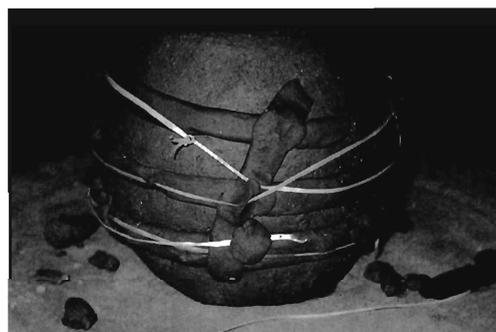


Fig. 16. A pot with horizontal and crossing *teniakia* applied.

Fig. 17. The fifteen vases with teniakia placed in the oven before they were covered with sherds and wood.



Fig. 18. A collection of the teniakia from the experiment. In all cases counterparts could be found among the original material. Only the ones from the experiment tends to be larger than those found at Psathi – but then they have not been rejected on a dump yet.

the mixed clay. The string used came from the plant *athanatos*, which is a type of cactus with large leaves with thorns. Many fibres were joined, which resulted in a very strong string, similar in appearance to the second type observed on the teniakia.¹⁸ Attempts were also made to produce strings from “kalami” – but with no success, probably due to ignorance of the correct processing.

Teniakia were attached around the body

of most of the vases after they had dried. We tried to imitate all the possible types; shape, directions, back-side anomalies and string marks found on the originals (Figs. 14–16). After the teniakia dried on the vessels they were seen to be very loose and fragile – some fell off on the first touch. Therefore, on four vases, the teniakia were attached immediately before they were put into the fire in order to see what would happen when wet teniakia were baked.

Stage 4. Baking the vases

On 3 September 1999 the vases were fired in an open hearth. We opened a shallow hole in the ground (10 to 20 cm deep) where we put a layer of thin branches from olive trees. The vases were placed on the branches, very close to one another, making a small conical construction (Fig. 17). The vases were then covered by sherds¹⁹ in order to protect them from direct fire. Then branches were put around and upon the construction and we fired the vases, adding wood when necessary.

The firing process lasted for about two hours and a temperature of at least 700 degrees C was reached.²⁰ During the first



half hour (between 150 and 300 degrees) we heard the sound of breaking vases.

The result was checked the next morning. Fortunately only the wheel made jar was completely broken (it was still a little wet), whereas most of the other vases were almost complete. Of relevance to our problem: the *teniakia* fell from the vases without leaving any sign on the surface of the vessels, and we did not observe any difference between those which were put into the fire wet and those which were dry. Only the *teniakia* which were attached to the two wet vases did not fall off (one seen in Fig. 13, lower, right). They were difficult to detach and they left signs (scars?) on the vases.

The *teniakia* themselves looked identical to the original ones – except for the colour of the clay. They had similar forms, shapes, profiles, string marks and “anomalies” (Fig. 18). And most importantly, the reverse of the *teniakia* had the same smooth surface as the original ones. Furthermore, it should also be noted that impressions from papillary lines – like on the original material – were quite limited.

Conclusion

The practical experiment has thus more than strongly suggested that the *teniakia* were attached to vases and that they were fired with them. The small size and thinness of the *teniakia* caused most of them to be over-fired. The experiment seemed to show that the *teniakia* were attached to the vases when they were completely dry and that they were attached immediately before the vases were baked.

As to why the *teniakia* were attached to the pottery in this fashion we are not certain, but the potters with whom DM has discussed the problem have suggested a very plausible solution.²¹ The quality of the Psathi clay is rather poor and the fire in which the vases were baked was not well controlled. Under this condition, *teniakia* attached to the vases as described, may have served a two-fold purpose during the critical moment of the firing process (between 150 and 300 degrees):²²

they offer a very effective protection against fire and could thus protect the vases from breaking by the suddenly increased temperature, while the string tightens the surface and thus keeps the shape intact.

Naturally the practical experiment does not prove that the above explanation for the *teniakia* is the correct one, but it seems the best we can offer for the “mystery” of Psathi. Should it prove correct, it seems that at least part of the deposits excavated at Psathi are waste products from pottery production. And in this connection one asks whether this is a local phenomenon or whether excavations from other prehistoric settlements (presumably with low-quality pottery) had not struck upon waste from pottery production.



Fig. 19. The seal impression Π 9600. Scale 2:1.

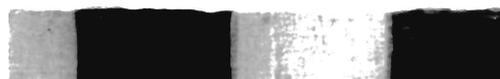
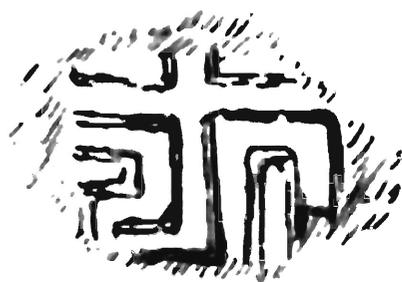


Fig. 20. Reverse of the seal impression Π 9600, probably revealing impressions from rough basketry. Scale 2:1.

Fig. 21. Drawing of the seal impression Π 9600. Scale 2:1.



The sealing

Among the material from Psathi was found a single fragment of a sealing²³ – a welcome find, since so little is known about seal *use* in Pre-palatial Crete.

Catalogue (Figs. 19-21)

Mus.no. Π 9600. Clay sealing, fragment fractured all way round. Clay: soft, light brown, finely gritted, slightly porous. Probably non-local clay. Worn on all sides. No string holes. Pres. Ø 2.66 x 1.84, Th. 0.93. On the reverse are seen three small grooves, indicating that the sealing may perhaps have been pressed against some kind of rough basketry. The worn state of the reverse makes it impossible to decide with certainty. Seal: along the longitudinal axis of the sealing the surface is very straight while on the short side it is slightly curved indicating that a large cylinder or a slightly incurved large stamp may have been used to impress the design, which consists of a complicated, geomet-

ric linear design around a cross or swastika. Parallels for the motif may be found at CMS II.1, nos. 66 and 351 and perhaps CMS V.1, no. 80.

As mentioned our knowledge of Pre-palatial seal use is – in contrast to the situation on the contemporary mainland – rather limited. Only 21 possible pieces have been published and of these, 10 were found on pottery, loom weights and a spindle whorl.²⁴ Of the eleven “true” Pre-palatial sealings, the Psathi example recalls the one found below the palace at Malia²⁵ and a sealing found at the recent excavations at Mochlos.²⁶ They remind one of the Psathi sealing in that they are flat, fractured all round, with an indistinct impression on the reverse, no string hole, and with a simple linear geometric design for motif. In all three cases it is impossible to decide whether these sealing fragments are part of larger decorated terracotta object or pottery decoration as is found several times on the mainland during the EH II period²⁷ or whether they may have been fragments from canonical sealings. If our observations are correct, that the Psathi sealing was sitting on basketry and that it was produced from non-local clay we may argue for a genuine sealing procedure with administrative implications, as several of the other Pre-palatial sealings clearly indicate.²⁸

Notes

We are most grateful to Mrs. Maria Andreadaki-Vlasaki who encouraged us to undertake this study and to the Ministry of Culture for the permission to publish the terracotta objects from the excavation at Psathi. We wish to thank Olga Krzyszkowska, who has corrected the English text.

Figs. 13-18 are by D.M. while the remaining are by E.H.

NOTE 1

Tzedakis 1980, 507-518.

NOTE 2

Mytilineou 1997-98, 195-236.

NOTE 3

Actually 3,186 pieces were inventoried from which a few joins were made and of which 48 on a second investigation seemed more likely to be pot sherds than *teniakia*.

NOTE 4

We are grateful to Mrs. Maria Andreadaki-Vlasaki for permission to mention this find here.

NOTE 5

16/2065, 16/2186, 16/0397, 16/1725, 16/0970, 16/1072, 16/1083, 16/1188.

NOTE 6

Only 474 were preserved at a length of 4.0 cm or more.

NOTE 7

98% of the measurable pieces, however, had a width between 1.0 and 2.5 cm.

NOTE 8

We did not measure the thickness of all *teniakia*, since they appeared rather uniform. From the random sample measured 72% were 0.5-0.6 cm while 14% were thinner and 14% thicker.

NOTE 9

It should be noted that the typical triangular shape of Type 5 was noted in 9 instances with string impressions for which reason

Type 5 should not be excluded, but just be considered to have an exceptional cross-section.

NOTE 10

A good example of objects also bound with clay and strings is the Minoan flat-based nodule where however the object was more narrow than the clay packed around it, for which reason the string marks were seen at the bottom or the very edge of the bottom, cf. Hallager 1996 I, 135-145, figs. 47-56.

NOTE 11

On the Type 2 pieces we found the following distribution:

- 1 725
- 2 688
- 3 398
- 4 181
- 5 72
- 6 23
- 7 10
- 9 1

NOTE 12

We wish to thank Dr. Anaya Sarpaki for discussions and suggestions concerning the nature of the strings.

NOTE 13

16/0904, 16/2458, 16/0118, and 16/2193.

NOTE 14

16/1147.

NOTE 15

16/1140.

NOTE 16

16/1776.

NOTE 17

We wish to thank warmly Aspasia, without whose help we could not have carried out the practical experiment, and also a special thanks to Anastasia Tzigounaki, who first proposed that the *teniakia* might have played a role in connection with producing of pot-

tery. We also thank the potter Polytimi Bili-ona for her help in making of the vessels.

NOTE 18

Athanos was not the plant used to make the Minoan strings, since it was only introduced in Crete c. 500 years ago; from then on it was used for strings until the beginning of the 20th Century.

NOTE 19

These sherds were from modern pottery.

NOTE 20

By 700 degrees the clay becomes red-hot, and one vase which we extracted from the fire had reached this state.

NOTE 21

We are grateful to Mr. Mathios Liodakis, who helped in the firing of the vases and offered a lot of his knowledge on the conclusions of the experiment.

NOTE 22

After 300 degrees the vases are stable, and do not need *teniakia*.

NOTE 23

In trench 8, level 1.

NOTE 24

Vlasaki & Hallager 1995, 254 and Table 1.

NOTE 25

Hue & Pelon 1992, 31ff., figs. 33-34.

NOTE 26

Soles & Davaras 1992, 436. We are grateful to J. Soles for showing us the piece and for his permission to mention our observations here.

NOTE 27

For example, Tiryns, cf. CMS V.2 nos 526-572 and Lerna, cf. CMS V.1, 120-149.

NOTE 28

Vlasaki & Hallager 1995, 268-270.

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