## CYNTHIA W. SHELMERDINE - JOHN BENNET

## TWO NEW LINEAR B DOCUMENTS FROM BRONZE AGE PYLOS\*

In the course of recent archaeological work within the fenced area of the so-called Palace of Nestor at Ano Englianos in southwestern Messenia, two new Linear B documents have come to light: a completely preserved nodule (Pl. I; Fig. 1) and a small fragment of a page-shaped tablet (Pl. II; Fig. 2). Both finds were brought to our attention in the summer of 1992, and we have assigned them the next available numbers in the Pylos sequence. The nodule, which was discovered earlier, is therefore Wr 1480 and the tablet fragment Xn 1481. The finds are described in detail below.

Nodule Wr 1480 (Chora Museum inv. no. 3539)

The nodule came to light in 1988 (October 9) when Mr Yiannis Rokanas, a guard at the site of the Palace of Nestor, noted a rather

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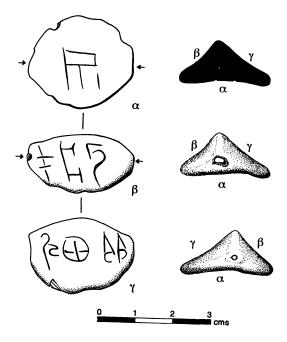


Fig. 1.a–c PY Wr 1480, face .α, facets .β and .γ (scale 1:1; R. Robertson)

odd-looking "pebble" while watering the flower-bed opposite the ticket booth at the entrance. The head guard of the Chora Museum, Mr Yioryios Vangelis, brought the find to our attention in the summer of 1992. The flower bed lies a few metres downslope from the area of the Northeast Workshop of the Palace of Nestor, suggesting that the nodule may have washed out of debris from Blegen's excavations in this area of the palace<sup>1</sup>.

Wr 1480 (Pl. I; Fig. 1) is of the standard oval shape, with the usual three faces, each bearing one or more Linear B signs, the whole

See C. W. Blegen and M. Rawson, The Palace of Nestor at Pylos in Western Messenia I, Princeton 1966, 299-325 on the Northeast Workshop area; I. Tegyey, "The Northeast Workshop at Pylos", in C. W. Shelmerdine and T. G. Palaima (eds.), Pylos Comes Alive, New York 1984, 65-79, with a list (pp. 67-68) of all tablets and sealings (inscribed and uninscribed) in the vicinity; T. G. Palaima, The Scribes of Pylos (Incunabula Graeca 87), Rome 1988, 152-159, giving findspots of tablets and inscribed sealings in the area (Rooms 98 and 99).

originally formed around a cord. It is 2.9 cm. long and face .α is 2.4 cm. wide; facets . \( \beta \) and . \( \gamma \) are 1.47 cm. and 1.89 cm. high respectively<sup>2</sup>. The nodule is made of a soft, light orange clay (core color Munsell 5YR 7/4 to 7/6) with a few small white and dark grey inclusions. This is a typical pottery fabric in LH III B Messenia. Because of its softness the nodule is very worn – no doubt partly as a result of its journey to the flowerbed – and preserves no fingerprints, but the inscription itself is quite legible. The lengthwise string hole is wellpreserved (Fig. 1.a-c). When rotated in the usual manner around the horizontal or string axis, starting with the wa of face  $\alpha$  right side up, the inscription on facet .β is upside down, and that on facet .γ is right side up. However, both facets .β and .y are the right way up for reading if one turns the nodule around its short, vertical axis (Pl. I.d). This arrangement suggests to us that  $\beta$  and  $\gamma$  were written together at the same time and are to be understood in some way as a continuous text.

Wr 1480

.α wa

.β pa-ta-jo

.y do-ka-ma

Face  $.\alpha$  is largely concave (Pl. I.a; Fig. 1.a), because the upper part contains an off-center circular depression (2.0 x 1.7 cm.) such as would be made by the ball of a thumb or the impression of a sealstone. The dimensions of the depression are not inconsistent with the dimensions of seal impressions on other nodules from Pylos and, indeed, a seal impression normally appears on this face of a nodule, but it is very difficult to detect such an impression on Wr 1480 because of its worn condition; only the single sign wa is clearly visible. The incision of this sign is deeper than on the other faces, even on the legs of the wa which are not in the circular depression. Examples of Linear B inscribed nodules without a seal impression are known at Knossos and Pylos, although the Pylos examples are inscribed only on one face<sup>3</sup>. However, careful examination of Wr 1480 by

In using the terms 'face .α' and 'facets .β, .γ' we follow E. L. Bennett, Jr., and J.-P. Olivier (eds.), The Pylos Tablets Transcribed I, Rome 1973, 266.

In the most recent editions of the Knossos texts, a new classification (Wm) has been created for nodules with a cord hole, but with no seal impression: J. T. Killen and J.-P. Olivier (eds.), The Knossos Tablets<sup>5</sup> (Minos Suppl. 11), Salamanca 1989, xiii. Eleven examples are assigned to this classification. PY Wr 1199 and 1247

Professor I. Pini has confirmed the existence of a seal impression on face  $\alpha^4$ . The impression is most clearly visible at the bottom right of face .α, where the right-hand upright of the wa cuts across a wavy, diagonal ridge. This ridge most likely represents the back of an animal. Traces of a similar animal, symmetrically placed, are less clearly visible at the bottom left. In Pini's view, the arrangement and dimensions of these features most closely approximate CMS I.375, an impression showing two antithetically placed calves facing outward, with three palm trees in the center. The palm trees have been completely obliterated on Wr 1480, partly by the incision of the wa and partly by the extreme wear to which the nodule has been subject. Two other examples of this impression – neither bearing an inscription - are known from the Palace of Nestor. Unfortunately they were not found in their original context; both are from the southwest slope, specifically "outside southwestern wall, sections 6-10 and beyond building X", a region in which a number of other sealings and tablets were found. The implications of this identification are briefly discussed below (p. 132).

The subject matter with which the nodule is concerned appears on facet .β (Pl. I.b; Fig. 1.b), which reads *pa-ta-jo*, /paltaion/ nom. sing. or /paltaiōn/ gen. plur., 'dart(s)' or 'javelin(s)'. The flowerbed in which the nodule came to light is a short distance downhill from the Northeast Workshop, an area of the Palace known to be associated with manufacturing, including that of weapons. The subject matter of the nodule is appropriate to that context, and it may well have rolled down from the workshop, which is also the source of ten

also fall into this category. They have been reclassified "Wn" by E. L. Bennett, Jr., "A Selection of Pylos Tablet Texts", in J.-P. Olivier (ed.), Mykenaïka. Actes du IX<sup>e</sup> colloque international sur les textes mycéniens et égéens (BCH Suppl. 25), Paris 1992, 125. (As an aside, we note here the problem that Killen and Olivier [supra, this n.] have also created a "Wn" classification for two Knossos nodules with seal impression, but no string hole. One of these classifications will presumably be changed in due course.)

<sup>&</sup>lt;sup>4</sup> We are most grateful to I. Pini for examining the nodule in the Chora Museum and conveying to us his findings regarding the probable identification of the impression for inclusion in this publication. We also thank Dr. Pini for allowing us to use his photographs of the sealing here, and T. McKern for tablet photographs.

<sup>&</sup>lt;sup>5</sup> Blegen and Rawson (supra n. 1) 286–287; Palaima (supra n. 1) 162–166.

<sup>&</sup>lt;sup>6</sup> Cf. M. Ventris and J. Chadwick, Documents in Mycenaean Greek<sup>2</sup>, Cambridge 1973, Glossary s. v. pa-ta-ja, and F. Aura Jorro, Diccionario Micénico, Madrid 1985, vol. II, s. v. pa-ta-ja.

<sup>&</sup>lt;sup>7</sup> References supra n. 1.

other inscribed nodules. It probably represents the delivery of javelins. Three sealings from Knossos provide good parallels for such a transaction; Ws 1704. $\gamma$ , 1705. $\beta$  and 8495. $\beta$ 1 are all inscribed with the plural *pa-ta-ja*. Ws 1704. $\alpha$  and 8495. $\alpha$  also give the corresponding logogram JAC, 'dart' or 'javelin'8. At Pylos itself Jn 829.3 documents the collection of bronze from the main districts of the kingdom, to be turned into points for javelins and spears: *pa-ta-jo-i-qe*, *e-ke-si-qe*,  $a_3$ -*ka-sa-ma*.

Facet .  $\gamma$  (Pl. I.c; Fig. 1.c) contains the word do-ka-ma, which perhaps means something like 'handful', 'handle', or 'shaft' (see below).

Nodules are of particular interest to those studying the Linear B administration, and their purpose has been well discussed in recent years. They are the only class of Linear B documents which – by definition – represent transactions. They often function as certificates accompanying a delivery or other transaction between two parties, probably the palace and another group or individual. This nodule, however, may actually have been affixed to string tied around the shipment of javelins. The string hole is wider at one end than the other (Fig. 1.a–c), suggesting that the clay was pressed against the string at the point where the two ends of the loop were knotted together. The full consignment was thus secured against pilfering.

Not 'arrow', which has a different logogram, pace J. L. Melena, "Further Thoughts on Mycenaean o-pa", in A. Heubeck and G. Neumann (eds.), Res Mycenaeae. Akten des VII. Internationalen Mykenologischen Colloquiums, Göttingen 1983, 275. It is, however, worth noting that bronze arrowheads were found in significant quantities in the Northeast workshop area: 45 nearly complete and fragments of many others from Room 99, and 501 from Room 100 (Blegen and Rawson [supra n. 1] 322, 325).

See, for example, V. Áravantinos, "The Use of Sealings in the Administration of Mycenaean Palaces", in Shelmerdine and Palaima (eds.) (supra n. 1), 41–48; T. G. Palaima, "Mycenaean Seals and Sealings in their Economic and Administrative Contexts", in P. H. Ilievski and L. Crepajac (eds.), Tractata Mycenaea. Proceedings of the Eighth International Colloquium on Mycenaean Studies, Skopje 1987, 249–266; T. G. Palaima (ed.), Aegean Seals, Sealings, and Administration, Aegaeum 5, Liège 1990; Chr. Piteros, J.-P. Olivier and J. L. Melena, "Les inscriptions en Linéaire B des nodules de Thèbes (1982): la fouille, les documents, les possibilités d'interprétation", BCH 114, 1990, 103–184. All contain references to earlier literature.

We are grateful to Emmett Bennett, who with characteristic attention to detail made this observation.

The majority of sealings are uninscribed. Of the preserved sealings from the Palace of Nestor, for example, only 23 of ca. 147 (16%) contain written information<sup>11</sup>. At Knossos the percentage is even smaller: perhaps only 10% (30 of ca. 300 sealings, including Wm, Wn and Ws) were inscribed.<sup>12</sup> An exception to this rule is, of course, the rich deposit of 56 inscribed sealings found in Thebes in 1982 among a group of 60 sealings in total (93%)<sup>13</sup>. Inscribed nodules are thus a particularly interesting subset of sealings. As such they may include a variety of information:

a) the identity of the certifying authority. This is normally (103 of 117 examples<sup>14</sup>) indicated by a seal impression on face .α. The six appearances of a personal or place name without a seal impression may however be substitutes for it<sup>15</sup>. In five of these instances the case of the name could be nominative. On KN Wm 1707 the words on both .a and .c appear to be in the dative case. However, *do-ke* on .b would seem to require a subject, which is perhaps provided by [.]-*ja-wo-ne*, if this is *scriptio plena* for a nominative in /-āwōn/<sup>16</sup>.

b) the identity of the commodity in question. This is normally (78 of 115 preserved examples) indicated by a logogram on face  $.\alpha$ , rarely on facet  $.\beta$  (KN Wm 1714, 1816, 1817<sup>17</sup>, 5860, 8490; PY Wr 1327; TH Wu 71, 81?). It may however be indicated syllabographically either instead of the logogram (KN Wm 8499.c; Ws 1703. $\gamma$ , 1705. $\beta$ ,

<sup>&</sup>lt;sup>11</sup> Further, a number of Pylos sealings occur on both inscribed and uninscribed nodules (e.g. CMS I.312 [2 of 8 examples inscribed]; 329 [3 of 7 inscribed]; and 363 [3 of 5 inscribed]). If the identification of the impression on Wr 1480 were secure it too would fall into this pattern, since the two examples of the impression already attested are on uninscribed nodules.

Based on CMS I, Killen and Olivier (eds.) (supra n. 3), and M. A. V. Gill, "The Knossos Sealings: Provenance and Identification", BSA 60, 1965, 58–98. See also Palaima, "Mycenaean Seals and Sealings" (supra n. 9), 256–257.

<sup>&</sup>lt;sup>13</sup> Piteros, Olivier and Melena (supra n. 9).

<sup>14</sup> KN Wm 5860 and 8490 and Ws 9232 are not well enough preserved to confirm the presence or absence of a seal impression, but we count them according to their classifications.

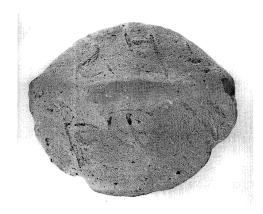
Pointed out by Aravantinos (supra n. 9), 44. The nodules in question are KN Wm 1707, 8207, 8493, 8499; PY Wn 1199, 1247. It should be noted that the function of ]a<sub>3</sub>-wo-re-u-si (Wm 1707.a1-2) is unclear.

<sup>&</sup>lt;sup>16</sup> J. Chadwick, "The Muster of the Pylian Fleet", in Ilievski and Crepajac (supra n. 9), 80, n. 10.

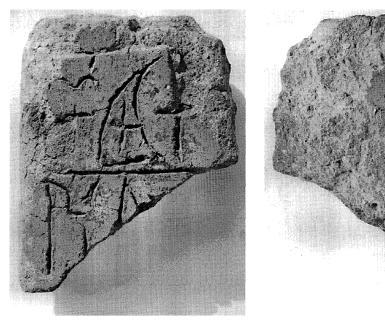
<sup>17</sup> Cf. Wm 5822 and 5824 which are similar in other respects, but where facet .β is damaged.

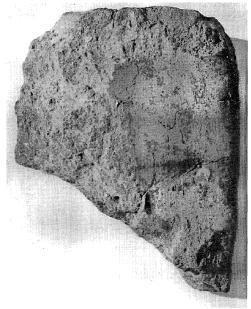


Pl. I.a–c PY Wr 1480, face .0, facets .6 and .7 (scale 2:1; I. Pini)



Pl. I.d PY Wr 1480, showing relationship between facets . $\beta$  and . $\gamma$  (scale 2:1; I. Pini)





Pl. II.a-b PY Xn 1481, recto and verso (scale 2:1; T. McKern)

- 8498. $\gamma^{18}$ , 8712. $\alpha^{19}$ ; MY Wt 501. $\beta$ , 502. $\beta$ , 503. $\beta$ -. $\gamma$ , 504. $\beta$ , 505. $\beta^{20}$ , 506. $\beta$ , 507. $\beta$ -. $\gamma$ ?<sup>21</sup>; PY Wr 1326. $\gamma$ -. $\beta$ , 1415. $\alpha$ ) or in addition to it (KN Ws 1704. $\gamma$ , 8153. $\beta$ , 8495. $\beta$ , 8497. $\alpha$ -. $\beta$ -. $\gamma^{22}$ ). Adjectival descriptions, amounts and numbers are more rare.
- c) a word describing the transaction, on facet .β or .γ. These include technical terms and verb forms such as *a-pu-do-ke*, *a-pu-do-si*, *o-pa* and *qe-te-o*.
- d) a personal name, place name or occupational designation, on facet  $.\beta$ , either as part of a technical expression indicating the status (o-pa) or the source (pa-ro) of the commodity being certified or, perhaps, identifying a recipient.<sup>23</sup> In only one case is the word perhaps in the dative case: PY Wr 1328. $\beta$ -. $\gamma$  pe-di-e-wi; the other cases are ambiguous<sup>24</sup>.

<sup>&</sup>lt;sup>18</sup> For ko-we as a commodity, possibly related to Classical Greek κῶρος, see Melena (supra n. 8) 275, 280.

<sup>19</sup> For e-po as an animal see Palaima, "Mycenaean Seals and Sealings" (supra n. 9), 261 n. 49.

On Wt 505 the reading pa-ko-to in J. L. Melena and J.-P. Olivier (eds.), TITHEMY. The Tablets and Nodules in Linear B from Tiryns, Thebes and Mycenae (Minos Suppl. 12), Salamanca 1991, 74 is an improvement over earlier readings (pa-ri-to, A. Sacconi (ed.), Corpus delle iscrizioni in Lineare B di Micene, Rome 1974, 46 and J.-P. Olivier (ed.), The Mycenae Tablets IV. A Revised Transliteration, Leiden 1969, 38; pa-puz-to, E. L. Bennett, Jr., (ed.), The Mycenae Tablets II [TAPS n. s. 48.1], Philadelphia 1958, 87). pa-ko-to is a vessel name associated with logogram \*214 on PY Ta 709.1.

The interpretation of *ka-ra-se-ti-ri-jo* on Wt 507 is uncertain. It may be a scribal error for *ka-ra-ti-ri-jo* which like other vessel names in the Wt series recurs on Ue 611

Face .α of Ws 8497 has the logogram AES, and the vessel names ke-ni-qa and a-sa-mi-to appear on facets .β and .γ. In the other cases the logogram and noun give duplicate information.

Allative place names could perform the latter function on KN Wm 8493, TH Wu 51, 65, 94, 96. TH Wu 55 has a place name not in the allative, and not linked to a technical expression as on Wu 58. For o-pa as a technical term, see Melena (supra n. 8), 258–286, and C. W. Shelmerdine, "Industrial Activity at Pylos", in Ilievski and Crepajac (eds.) (supra n. 9), 337–338. For the different view that o-pa designates material for finishing (an action noun /hopā/, based on the verb ἔπω), see J. T. Killen, "Mycenaean o-pa", in S. Deger-Jalkotzy, S. Hiller and O. Panagl (eds.), Floreant Studia Mycenaea. Akten des X. Internationalen Mykenologischen Colloquiums, forthcoming.

<sup>&</sup>lt;sup>24</sup> J. T. Killen suggests (personal communication) that *pe-di-e-wi* might be a scribal error for *pe-di-je-wi-ja* (cf. PY Va 1324, also from the Northeast workshop). The other ambiguous cases are: PY Wr 1359, 1360 (or adj.?); KN Wm 1707 (.a certainly dative, .c perhaps nominative [supra p. 128 with n. 16), 8499; Ws 1701?, 8152, 8754; TH Wu 45, 70, 99?. TH Wu 56, 58, 59, 60, 76, 88 contain names as part of a technical expression; that on Wu 76 is the same name as on Wu 70.

Wr 1480 presents several interesting and unusual features. One is the relationship between rotation and inscription. Inscribed sealings from Pylos normally (17 of 21 examples) follow the general pattern where rotation around the string axis yields three successive right side up inscriptions. Wr 1327 from Room 98 of the Northeast Workshop is the only Pylos nodule with the same relationship between rotation and inscription as Wr 1480<sup>25</sup>. There is no parallel at Mycenae or Knossos, and only one, TH Wu 53, at Thebes<sup>26</sup>.

The use of a single syllabogram rather than a logogram on face  $.\alpha$  of a nodule is also rare. The sign wa cannot be taken as a logogram, since the commodity in question is given on facet  $.\beta$  by the word pata-jo, for which the corresponding logogram is JAC. As noted above, in a few instances a syllabogram may substitute for a logogram. An example is Pylos sealing Wr 1332. $\alpha$ , where WI presumably acts as an abbreviation for /wrīnos/ 'ox-hide', although elsewhere 'ox-hide' is denoted by logogram \*152<sup>27</sup>. However, such a usage is impossible on Wr 1480, since wa is not an abbreviation for pa-ta-jo.

It is therefore more likely that wa conveys the other information normally found on face .α: namely the identity of the certifying authority. Elsewhere in the Linear B corpus, wa is understood as an abbreviation for the adjective /wanakteros/ ('royal'). The form wana-ka-te-ra appears on KN Lc(1) 525.a as part of a cloth target entry for (the women of) se-to-i-ja, paralleled by a cloth delivery record (Le 654.4), where wa appears next to a delivery from the same place<sup>28</sup>. A similar pattern can be detected on the longer stirrup jar inscriptions, where wa-na-ka-te-ro appears as the third sign-group on TH

<sup>&</sup>lt;sup>25</sup> Bennett and Olivier (supra n. 2), 266.

Mycenae: Bennett (ed.) (supra n. 20), 103–104; Knossos: J. Chadwick et al. (eds.), Corpus of Mycenaean Inscriptions from Knossos II, Cambridge 1990, although only Ws 1701–<1708> have been published to date with photographs; Thebes: Piteros et al. (supra n. 9) 113, n. 33.

<sup>&</sup>lt;sup>27</sup> The use of *WI* as a logogram is paralleled on PY Un 219.10, although we cannot be certain of its function there. A possible explanation is suggested by the existence of the logogram \*152, a hide with surcharged *wi*. A similar instance of a syllabogram substituting for a logogram appears among the recent Thebes sealings: Wu 64 has *WE* on face .α, presumably an abbreviation for /wetalon/ 'yearling', a usage attested at Knossos (especially in the Dl [1] series: e.g. Dl [1] 790), and also on two other Thebes sealings from the same group: Wu 74.α (where it serves as an adjunct to the logogram CAP<sup>m</sup>: *we* CAP<sup>m</sup>) and Wu 78.β (where it apparently modifies the OVIS<sup>m</sup> logogram on side .α).

The two tablets were first linked by J. T. Killen, "The Knossos Lc (Cloth) Tablets", BICS 13, 1966, 107.

Z 839, and wa-na-ka[ as the second on TI Z 29, while the single sign wa appears as the third element on EL Z 1<sup>29</sup>. wa also seems to substitute for the noun /wanax/ itself on KN F 51 v.1, where it appears in a list of recipients of barley. It is, therefore, attractive to see in the wa on Wr 1480 the indication of a transaction between the king (/wanax/ = the palace) and an individual, in which the abbreviation wa countermarked a royal seal impression, perhaps the king's own<sup>30</sup>. In the absence of a seal impression, as noted above (p. 128), the name of the authority may be written out, but there is no other example of a single sign thus used. Indeed, the wanax is probably the only person in the Mycenaean hierarchy who could be denoted by such an abbreviation.

The word do-ka-ma on facet .y must convey some further information normally found on nodules, and, given the fact that it can be read right way up by turning the nodule around its short axis, it may have a close syntactic relationship with pa-ta-jo on facet .β. This word appears in the dative plural do-ka-ma-i on Pylos tablet An 1282.3, in a list of men apparently assigned to chariot equipment. This tablet was found in the Northeast Workshop, and probably records work groups assigned to various tasks. The meaning of the word is not clear. It has been connected with Classical Greek δοχμή, 'span', but this does not give a satisfactory sense either in An 1282 or in Wr 1480. The sense 'handle' or 'handful' would be appropriate here, but it is difficult to derive the form from  $\delta \dot{\epsilon} y o \mu \alpha i$ , 'receive'<sup>31</sup>. More satisfactory is a derivation from δράσσομαι, 'grasp by the hand', in the form \*drk(h)ma, with -or- as the reflex of syllabic -rgiving /dork(h)ma/. The sense 'handle' or 'shaft' is attractive. Javelins would at some point have to be assembled from wooden shafts

It is possible that the wa incised on the false neck disc of a stirrup jar excavated at Chania (KH Z 16) may also represent an abbreviation, although this is not part of a longer inscription. The possible inscription ] wa on a stirrip jar from Gla (GL Z 1) is doubtful both in its reading and its completeness; should it prove valid it would deserve inclusion here: S. Iakovidis, "Ενεπιγραφός ψευδόστομος από τον Γλα", in Αριαδνή. Αφιέρωμα στον Στυλιανό Αλεξίου 5, Athens 1989, 39–43; J.-P. Olivier, "Rapport sur les textes en hiéroglyphique crétois, en linéaire A et en linéaire B", in J.-P. Olivier (ed.), Mykenaïka (supra n. 3), 447–448.

<sup>&</sup>lt;sup>30</sup> If this interpretation is valid, it offers the opportunity of being able to detect the direct involvement of the king (or an official entrusted with the king's seal?) in the acquisition of products for the palace.

<sup>&</sup>lt;sup>31</sup> For derivations see Aura Jorro (supra n. 6), vol. I. s. v. do-ka-ma-i. See next note for further discussion of the sense 'handle'.

and stone or metal points, and the two facets .β and .γ together would then read 'of javelins/darts, handles'. The bronze collected for spear and javelin points on Jn 829 shows that the palace at least occasionally assembled the materials separately<sup>32</sup>. It would be quite reasonable to see in Wr 1480 a delivery of wooden handles, which might later be joined to their points in the Northeast Workshop, a short distance from the findspot of the nodule. The importance of the transaction may be inferred, if it was indeed certified by the direct authority of the *wanax* of Pylos.

It is worth noting, however, that the other examples of CMS I.375 were not found in the Northeast Workshop area, but on the southwest slope of the site, and therefore removed from their original context. The other examples of multiple impressions from the same seal found in the palace are normally found together in a single location: CMS I.312, 323, 329 and 367 (Northeast Workshop: Rooms 95, 97–100); 356, 358, 361 and 363 (Wine Magazine: Rooms 104–105)<sup>33</sup>. If therefore Wr 1480 really belongs in the Northeast Workshop and the identification with CMS I.375 is secure, this might suggest that the two uninscribed examples also originated in the workshop. Conversely, if the uninscribed sealings had come originally from the Southwestern Building, as is suggested for the tablets found on the southwest slope, one might think that this was also true of Wr 1480<sup>34</sup>.

J. T. Killen, "New Readings and Interpretations in the Pylos Tablets", in Deger-Jalkotzy, Hiller and Panagl (eds.) (supra n. 23) has suggested that the occurrence of *do-ka-ma-i* on An 1282 might be explained if the sign group *ki-u-ro-i* on the same text can be explained as /skiwroihi/, 'flints' or 'flint arrowheads'. This suggestion would have the attractive features of giving a rationale for An 1282 (the men recorded are involved in military production to do with chariots and weapons) and allowing us to bring An 1282 and Wr 1480 together. However, it should be noted that Killen also mentions (ibid.) the possibility – suggested by Chadwick – that the sign group *ki-u-ro/ki-wa-ro* might refer to 'wickerwork', not 'flints'.

<sup>33</sup> Three examples of CMS I.379 were found on the southwest slope, not in their original context.

Blegen and Rawson (supra n. 1), 283-284 show that most of the material from this southeastern part of the southwest slope is out of its original context. They suggest that tablets found in this area may have originated in the Southwestern Building. This seems extremely likely for some of the material; see C. W. Shelmerdine, "A Comparative Look at Mycenaean Administration(s)", in Deger-Jalkotzy, Hiller and Panagl (eds.) (supra n. 23).

Tablet Fragment Xn 1481 (Chora Museum inv. no. 3850)

The tablet fragment was discovered in 1991 (August 21) by the Minnesota Archaeological Research in the Western Peloponnesos (MARWP) team under the direction of Frederick Cooper, Michael Nelson and Diane Fortenberry in the course of cleaning structures excavated by Blegen as part of a project to prepare a final state plan of those excavations. The tablet fragment came from fill left by Blegen over Area 94, just outside the southeast end of Room 99 of the Northeast Workshop. The full context information is "110/835; N 4.7 E 0.7 Locus 2; fill top wall; Bag 4". There seems little doubt that the fragment belongs to Blegen's excavation and, therefore, to the main archive preserved in the destruction of the palace. If the possible identification of the scribe of this fragment with Hand 23 attested elsewhere in the archive is valid this assumption is confirmed.

The fragment (Pl. II.a; Fig. 2.a) is of a page-shaped tablet, broken at top, bottom and right, but complete at left. The maximum preserved height is 3.6 cm., the maximum preserved width 2.9 cm., the thickness 1.0 cm. The lines of text are separated by rulings. The four preserved signs vary between 1.3 cm. and 1.4 cm. in height; the rulings of line .1 are 1.5 cm. apart and those of line .2 are 1.6 cm. apart. The fabric is gritty and well baked; it is semi-coarse with small white inclusions. The color of the core is brown (Munsell 7.5YR 5/8); the surface color is reddish (recto Munsell 2.5YR 5/6, verso 5YR 5/6) with black mottling. The preserved surfaces have been smoothed and the piece has been fired hard in the destruction. That there were further entries above and below the preserved text is strongly suggested by traces of signs in line .0 and by the trace of a ruling beneath line .2, although no traces of signs are visible on the bottom edge of the fragment. The text reads as follows:

## Xn 1481

- .0 vestigia
- .1 qo-wi-ro [
- .2 o-ma[
  infra mutila
- .0 a horizontal or slightly curved incision and the absence of any sign elements above it suggest the possibility of a *ta* or a *we*.
- .2 o-pe or o LANA not completely excluded.

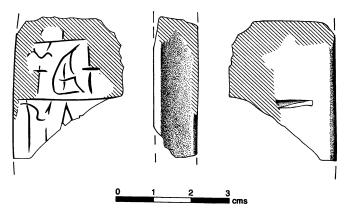


Fig. 2.a-c PY Xn 1481, recto, lat. sin. and verso (scale 1:1; R. Robertson)

The two best-preserved lines appear to contain personal names. *qo-wi-ro* in line .1 is probably complete, and in the nominative case. The name is otherwise unattested in the corpus. The interpretation is most likely /gwowilos/, 'ox-man'. Several other compounds of 'ox' are known, at Pylos and elsewhere; the divine name qo-wi-ja on PY Tn 316 v.3 exhibits the same glide as *qo-wi-ro*. More difficult to read is the incomplete entry on line 2. It is most likely the start of another personal name, o-ma[, o-pe] is a more doubtful possibility; there is no trace of the central element of the sign. It is less attractive to take the broken sign as the wool logogram and read o LANA[, indicating a debt (o-pe-ro) of wool. There is a mark on the surface of the tablet which looks at first like the central upper curved element of this logogram. However, it is clear in the break that this mark does not extend down into the clay in the same way the vertical and diagonal strokes do. Much scrutiny has convinced us that it is simply a surface scratch, and not part of the sign. The placement of the sign also suggests that it is not a logogram. The spacing in this line is about the same as in the line above; there would be more space between a syllabogram and a logogram.

The shape of some signs is distinctive, resembling in general those written by a scribal hand already attested in the Pylos archive.<sup>35</sup> In

<sup>35</sup> Comparisons are to Palaima (supra n. 1), and to 1:1 scale photographs of the Pylos tablets in the collection of the Program of Aegean Scripts and Prehistory (PASP) at the University of Texas at Austin and in the collection of Emmett L. Bennett, Jr., at the University of Wisconsin-Madison.

particular the curved element of the qo, while common at Knossos, is quite rare at Pylos; only Hands 23, 33 and 43 (one instance only, unlike his other examples) make the sign this way. Of these only the work of Hand 23 shares other features with Xn 1481. Specifically his wi is very similar, and also one instance of o where he includes a 'scepter': that in ti-nwa-ti-ja-o on Ad 684. The tablet surface there is partially broken away, but it is clear from the photograph of Ad 684 that the 'scepter' comes to a point as it does on Xn 1481.36 Concerning the disputed sign in line .2, Hand 23 makes the sign ma with diagonal strokes that extend well beyond the tops of the verticals, unlike what appears on Xn 1481. It is worth noting, however, that his pe has a curved element sloping downward to the left, which would explain why, if *be* is the correct reading, no trace of the curved element is preserved above the break. In addition to the parallels in individual signs, there is general similarity in the overall clarity and neatness of the writing, and in the proportion of height to width of the signs, though the actual dimensions of signs on Xn 1481 are smaller. However, Hand 23 is known otherwise only for 40 elongated tablets in the Ad series, all found within the Archives Rooms 7 and 8<sup>37</sup>. This fact leads us to pursue a cautious course, since an identification of the hand of Xn 1481 with Hand 23 would imply that we have a new tablet by him that is not an elongated tablet, was not deposited in the Archives Room complex and – almost certainly – did not deal with female work groups and their children. We prefer therefore to assign the signs attested on Xn 1481 more generally to Class ii, and to leave open the question of whether the fragment can definitively be associated with the final destruction of the palace.

Another way of considering the question of whether Xn 1481 belongs among the tablets preserved by the final destruction is to look at the collection of page-shaped tablets already attested in its findspot, the vicinity of the Northeast Workshop. Both authors have examined photographs of these documents and established that Xn 1481 does not join with any extant tablet. Among these texts are several that would parallel the type of record (apparently a list of personal names) fairly well; An 1281, Cn 1287 and Un 1322 are

<sup>&</sup>lt;sup>36</sup> Two other examples of o by Hand 23 have a scepter. Only the rounded version (on Ad 315) is illustrated by Palaima (supra n. 1). The o of *mi-ra-ti-ja-o* on Ad 380 has a scepter consisting of two separate diagonal lines.

<sup>&</sup>lt;sup>37</sup> Palaima (supra n. 1) 86-89, who also includes the fragmentary Xa 289 on the basis of shape and find spot.

perhaps the best parallels in the *type* of document, and Un 1322 is assigned to Class ii. However, there are few parallels in sign forms to those attested on Xn 1481; in particular, there is no preserved *qo*, the most distinctively characteristic syllabogram preserved on Xn 1481. In theory it is possible that Xn 1481 does represent the work of a scribe attested among the tablets preserved in the Northeast Workshop area, but there is insufficient evidence to link the preserved signs with any of the hands as they are currently attested there. In conclusion, then, despite the similarities with sign forms in Hand 23's repertoire, we do not believe there is sufficient evidence for a definitive identification.

One final interesting feature of the fragment is its verso (Pl. II.b; Fig. 2.c), which preserves an impression running at a slight angle to the horizontal and tapering to a point near the preserved left edge of the tablet. The upper edge of the impression is preserved to the point where the surface of the tablet is broken, a length of 0.8 cm. The lower edge is only preserved for half this length. The indentation is wedge-shaped; its greatest preserved width is 0.32 cm., tapering to 0.08 cm. at the point. The impression may have been made with a stylus. However, recent discoveries of possible styli at Thebes, Tiryns and elsewhere suggest that they were usually made of bone, with one end carved to a flattened, oblique point, while the other (usually broken off in preserved examples) was sharpened to a point.<sup>38</sup> The mark on the verso of this fragment does not seem to have been made by a stylus of this form. A more likely interpretation is that the mark is the impression of basketwork. There are less clear traces of similar, but much shallower marks immediately below this one. The impressions were presumably made when the damp tablet was placed in a basket for storage.<sup>39</sup>

<sup>&</sup>lt;sup>38</sup> For the styli found at Thebes, see Piteros, Olivier and Melena (eds.) (supra n. 9), 106–107, fig. 2; for those at Tiryns and elsewhere, see L. Godart, "Autour des textes en linéaire B de Tirynthe. Ausgrabungen in Tiryns 1982/83", Archäologischer Anzeiger, 1988, 245–251, figs. 3 a-c, 4 a-d (Tiryns) and 250–251 (elsewhere).

<sup>&</sup>lt;sup>39</sup> See, for example, J. Chadwick, The Mycenaean World, Cambridge 1976, 18–20.