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NOTES ON THE KNOSSOS SAFFRON RECORDS*

Abstract: The paper considers the two groups of records of the commodity saffron in the Linear B tablets from Knossos. These are classed as Np(1) and Np(2). Particular attention focuses on the entries in the Np(2) series which involve the fractional weight sign conventionally transcribed as P. It is suggested that the evidence of these entries is consistent with E.L. Bennett's suggestion, made as early as 1950, that twelve of these units go to make up the larger N unit.

The Linear B records of saffron from Knossos fall into two main groups. The Np(1) tablets, from the Room of the Chariot Tablets, are in hand "124"e; the Np(2) records, from the Area of the Bull Relief at the North Entrance to the palace, are in hand 134.

Many at least of the Np(1) records begin with a place-name. *Ka-ta-ra* (Np(1) 85), *da-wo* (Np(1) 272), *wa-to* (Np(1) 7423) and *qa-sa-ro-we* (Np(1) 7923) all recur as toponyms elsewhere in the Knossos archive, which makes it highly likely that the *hapax sa-ma-da* (Np(1) 267) and the fragmentary terms in majuscule at the beginnings of other tablets in the group are also place-names. *]ni-ja* on Np(1) 269 might be *ku-do-]ni-ja* or *tu-]ni-ja*. It is noticeable that two of these toponyms, *ka-ta-ra* and *wa-to*, refer to places in the Far West of Crete, reminding one of Evans' observation in *The Palace of Minos* (IV.721) that a number of place-names in Crete, particularly in the West, are derived from the Italian word for saffron, indicating that these were centres for the production of the plant in the Venetian period. Note, too, that the eighteenth century traveller Savary mentions the area around Rethymnon as being particularly famous for its saffron production.¹

* I offer these notes in affectionate tribute to Petar Ilievski, a friend to both me and my family for some forty years, whose devotion to scholarship and qualities as a person are an example and inspiration to all his colleagues in Mycenaean studies.

¹ Savary 1788.245-46.

The term in minuscule in second position is undoubtedly a man's name; *a-nu-ko* recurs as a 'shepherd's' name on three Knossos sheep tablets (Db 1464, Dc 1122 and Dk(2) 8209, the last two of which probably deal with the same flock) and again in connexion with sheep on Ce 50. Moreover, a number of terms in parallel position on other members of the 'set' are again plainly men's names, e.g. *sa-ma-ri-jo* Np(2) 857 (also a 'shepherd's' name on Da 1147), *tu-qa-ni-ja-so* Np(2) 5721 (again a 'shepherd's' name on Db 1279), *e-u-na-wo* Np(2) 5725 (once more a 'shepherd's' name on Dv 1206, as well as a MN on As(2) 1520, B(5) 799). Since these tablets certainly record contributions to the centre, it seems difficult to doubt that each of these names refers to an individual who is responsible for supplying the saffron listed on the record: most likely the actual producer of the substance, though it is also possible that it is a local official responsible to the palace for assembling his area's contribution.⁵

Much more problematic, however, is the term in majuscule before the man's name. The analogy of the Np(1) tablets, and the fact that records of contributions at Knossos often begin with a toponymic reference, suggests that the likeliest explanation of]*nu-po* is that it is the end of a place name.⁶ If it is, it is possible that the majuscule terms in]-*jo* at the beginnings of two other tablets in the group, Np(2) 857 and Np(2) 5721, are the ends of ethnics; on other 'contribution' records at Knossos like the Ga(2) 'spice' tablets, place names alternate with ethnics in -*jo* as the toponymic references at the beginnings of the records. Since, however, we have no reference elsewhere at Knossos to a place name ending in]*nu-po*, its identification as one here can only be very tentative.

Of particular interest are the amounts of saffron listed on the Np(2) tablets, and the light that the figures throw on the relative value of the weight sign P found on a number of the tablets. As we have already mentioned earlier, it seems highly probable that the amount of saffron expected as a contribution from each of the places/contributors listed in the series was N 1, viz. one quarter of the M unit, thirty of which make up the L (TALENT) unit, whose absolute value was probably about 30 kg., making the M = c. 1 kg. and the N = c. 250 gr. That this is the case is made clear by the fact that no fewer than eight of the more complete tablets in the group record that

⁵ Compare the men's names found on a number of the Knossos Ga(2) records of contributions of coriander and *po-ni-ki-jo*. For discussion of the identity of these persons, see Melena 1976a.140-46, Foster 1977.42-46.

⁶ For this suggestion, see previously Aura Jorro 1985.479.

amount with, we can be certain, no deficit noted, since all eight tablets are cut at the right following the N 1 entry. The tablets in question are Np(2) 856, 861, 5002, 5725, 5982, 7418, 7439 and 8003; note, too, the Ns on Np(2) 1000, 5721, and 8249, where the tablet is broken to the right of the sign, and we cannot therefore be certain that the entry again concerned N 1, though there is a possible 1 to the right on Np(2) 5721. We may therefore feel confident that the amounts on tablets which contain both payment and deficit entries, all of which are expressed in terms of the smaller P unit, would originally have totalled N 1. It is here, however, that a point of some interest arises, since the value of the P unit, in terms of how many of them make up the larger N unit, has never been established with complete certainty.

In his superb 1950 paper ‘Fractional Quantities in Minoan Bookkeeping’, written before the decipherment, Emmett Bennett discusses among many other questions the value of P relative to N. He writes as follows. “The tablet Kn01 [now Jo 438] ... provides the sole evidence for a smaller measure from Pylos. The sign 30 [= P] occurs on this tablet followed by the numbers 3 (4 times), 5 (4) and 6 (5). Therefore at least 7 of the measure 30 [= P], and more probably 12, equal one of the larger measure 29 [= N].”⁷ This view of the matter, that 12 P probably (but not certainly) equal 1 N, is still the standard one: see Ventris and Chadwick 1956.55, Palmer 1963.12, etc.

Now clearly, if Bennett were right, we should expect the P figures in the ‘payment plus deficit’ entries on the Np(2) tablets to total twelve. Is this, however, the case?

We are unfortunately handicapped by the fact that many of the figures on the ‘payment plus deficit’ tablets are either missing or damaged. Nevertheless, such evidence as we have, while not settling the matter beyond all doubt, can certainly be regarded as consistent with the value that Bennett has suggested. The following are the key pieces of data.

(a) Np(2) 9678 shows a deficit entry of P 10[. Though the payment entry here is missing, this confirms that at least eleven P units went to make up an N. Note also the less certain 10s on Np(2) 5008, 8457.

(b) Np(2) 860 (fig. 1) shows a payment entry of 4 P. All that survives of the figure in the deficit entry is two upright strokes, clearly units, one below the other on the broken right edge of the tablet following P. The height of these strokes strongly suggests that two

⁷ Bennett 1950.217.

of the top two rows of units of the 9 which is certainly to be read on Np(2) 859 (fig. 3).

Np(2) 859 (134)
]-wo , CROC P 9 o [

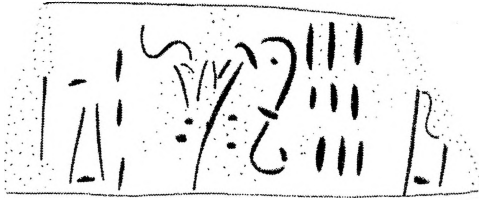


Fig. 3 : Np(2) 859

Two further points about the Np(2) tablets remain to be made. First, if each of the surviving members of the series is part of a separate tablet, the ‘set’ as a whole will have recorded a total assessment of 28 x N 1 units of saffron, i.e. c. 7 kg. Baumann (1993), quoted by Sarpaki (2001.204), notes that 100,000 to 140,000 flowers are needed to produce 1 kg. of dried saffron (as CROCUS on these records presumably is), so that the total amount shown as expected in the series is likely to represent the yield of some 700,000 to 980,000 flowers.

Second, we cannot be certain what this saffron was used for. Sarpaki (2001.203) notes that saffron can be used for dyeing, for perfume manufacture, as an ingredient in cooking and for its medicinal properties. While, however, it is attractive to suppose that some at least of the significant amount of saffron on the Np(2) tablets was used as a dyestuff, we have no evidence to confirm this. One of the Np(1) tablets, Np(1) 7423, records a consignment of *ri-no*, *linon*, here, since it is weighed, probably linen thread,⁸ on the reverse of the tablet. Its text reads as follows.

Np(1) 7423 + 7641 [+] **7445** (“124”e)
wa-to CROC[]N 2 [
↓
v. ri-no M [] P 2[

Unfortunately, however, we cannot confirm that the two entries on the record are directly linked, viz. that the saffron was intended for dyeing the linen. It is perfectly conceivable that the *ri-no* is a separate, unrelated, contribution; cf. the contributions, almost certainly

⁸ Melena 1976b.237.

again of *ri-no* measured by weight, on the tablets in the Nc series at Knossos.⁹ Nor are there any certain references to saffron, or workers in saffron, in the large archive of cloth records at Knossos. Two terms in certain or possible textile contexts, *ko-ro-ka-* [on Ak(1) 5553 and *ko-ro-ki-no-* [on X 974, have sometimes been interpreted as references to saffron or its users; in neither of these instances, however, can the case for the interpretation be regarded as compelling.¹⁰

BIBLIOGRAPHY

- Aura Jorro, F. 1985. *Diccionario Micénico I*.
- Baumann, H. 1993. *Greek Wild Flowers and Plant Lore in Ancient Greece*.
- Bennett, E.L. Jr. 1950. "Fractional quantities in Minoan bookkeeping", *AJA* 64, 204-222.
- Cremona *et al.* 1978. M.V. Cremona, D. Marcozzi, E. Scafa and M. Sinatra, *La toponomastica cretese nei documenti in Lineare B di Cnosso*.
- Driessen, J. 2000. *The Scribes of the Room of the Chariot Tablets at Knossos* (= *Minos* Supplement 15).
- Evans, A.J. 1921-1935. *The Palace of Minos at Knossos*.
- Foster, E.D. 1977. "An administrative department at Knossos concerned with perfumery and offerings", *Minos* 16, 19-51.
- Killen, J.T. 1966. "The Knossos Nc tablets". In L.R. Palmer and J. Chadwick (eds.), *Proceedings of the Cambridge Colloquium on Mycenaean Studies*, 33-38.
- 1985. "New readings in the Linear B tablets from Knossos", *Kadmos* 24, 26-33.
- Lejeune, M. 1958. *Mémoires de philologie mycénienne I*.
- Melena, J.L. 1975. *Studies on some Mycenaean Inscriptions from Knossos dealing with Textiles* (= *Minos* Supplement 5).
- 1976a. "Coriander on the Knossos tablets", *Minos* 15 (1974), 133-63.
- 1976b. Review of M. Ventris and J. Chadwick, *Documents in Mycenaean Greek*². *Minos* 15 (1974), 233-39.
- Palmer, L.R. 1963. *The Interpretation of Mycenaean Greek Texts*.
- Sarpaki, A. 2001. "Condiments, perfume and dye plants in Linear B: a look at the textual and archaeobotanical evidence". In A. Michailidou (ed.), *Manufacture and Measurement: Counting, Measuring and Recording Craft Items in Early Aegean Societies*, 194-265.
- Savary, M. 1778. *Lettres sur la Grèce, faisant suite de celles sur l'Égypte*.
- Ventris, M. and Chadwick, J. 1956. *Documents in Mycenaean Greek*.

⁹ On the identification of this commodity, see Killen 1966, *id.* 1985.29-30.

¹⁰ While *ko-ro-ka-* [on Ak(1) 5553, which is likely to record a textile work-group, might be a trade-name, no known compound of *krokos* in Classical Greek fits the spelling; and since the term on X 974 appears to be either *ko-ro-ki-no-ro* [or *ko-ro-ki-no-ro* [, a comparison with the (late) Greek adjective *krokinos* seems to be excluded.