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MINOAN SA-RA₂ AND MYCENAEAN TEXTS

(One Instance of Linguistic Encounter)

In the Minoan texts, the most recurrent formative is ku-ro (found 37 times). It can be found only in A linear economic texts, presumably, as a closing of a list of goods, weapons or manpower. It is generally interpreted as «sum».¹

The second most recurrent formative of A-Linear texts is the combination of signs 31-76 (sa-ra₂), which, like ku-ro, is used only in economic texts. It can be found 21 times (HT 11b, HT 18, HT 28a, HT 28b, HT 30, HT 32, HT 33, HT 34, HT 36a, HT 90, HT 93a, HT 94a, HT 99a, HT 100, HT 101, HT 102, HT 105, HT 114a, HT 121, HT 125a, HT 130): 8 times before the ideogram 120 (presumably, "wheat"), 5 times before the ideogram 303, which V. Georgiev identifies with the Linear B ideogram 125 ("cypress"). In other cases, the formative is used separately, while in HT 93a and HT 11b texts, it is immediately followed by the number 20 (see fig. 1).

HT 93a

1. 56-ni-na . 120-56 . 515 **12** di-
2. ri-na **10** 502 43 ki-di
3. ni **5**< a-se . 28b
4. 574 **26**< sa-ra₂ **20** qa-qa-
5. ru . 28b 574 **5** 100/102-28b
6. **6** de-65-ku **1**< ?-ti
7. [.] **3** da-ri-da 407 **2** 343 **2**
8. 56-ni-na [] pa-se-ja **20**

¹ See Chotalishvili L., *The Aegean Writing Systems*, Tbilisi 2003, 99-101 (*in Georgian*).

9. 100/102 107 []- ka 4

Cosani and Negri identify sa-ra₂ as a personal name.² On the other hand, Fachetti finds it a non-onomastic term and while making no reference to its possible meaning, associates the formative with ration.³

A word *sarapedo* is attested in Linear B texts Un 718 and Er 880. A part of mycenologists believe that *sarapedo* refers to a characteristic feature of a particular type of land, while others consider it a place name.⁴ The majority of scholars find the tablet Er 880 to be the continuation of Er 312. According to the text Er 312+880, e-ke-ra₂-wo (who scholars believe to be the king of Pylos) owns te-me-no + ki-ti-me-na + sa-ra-pe-do pe-pu₂-te-me-no.⁵ Referring to Furumark, Lindgren notes that *sarapedo* is a technical term stemming from sa-ra of Linear A texts and can be synonymous with the Greek *τέμενος* that is, a plot in the possession of king and lavagetas.⁶ It should be noted that *sarapedo* can only be found twice in Linear B texts, while sa-ra₂, as mentioned, is the second most recurrent formative in Linear A texts.

As known, Linear A and B economic records have the same structure. In Linear B texts the most recurrent word used before the ideogram 120, which is common for all series of Class E, is pe-mo / pe-ma (σπέρμα),⁷ while in Linear A texts sa-ra₂ takes its position. Some scholars believe that the formula pe-mo GRA (120) or to-so-de pe-mo GRA must refer to the quantity of seed grain⁸ and was used as a measure of a plot size. It would be interesting to find out if sa-ra₂ 120 of Linear A texts can be described as having the same symbolic sense. The analysis revealed that in Linear A texts sa-ra₂ is preceded by various words: de-nu, ru-si-ka, u-mi-na-si, i-ku-

² Cosani C., Negri M., Testi minoici trascritti, Roma 1999, 297.

³ Fachetti G. M., Non-onomastic Elements in Linear A, Kadmos 38, 1999, 121-136, 122-124.

⁴ Diccionario Griego-Español. Anejo I. Diccionario micénico. I-II. Redactado por F. Aura Jorro, Bajo la dirección F. R. Adrados, Madrid, II-1993, 282.

⁵ Parousis M., Les listes des champs de Pylos et Hattusa et le régime foncier mycénien et hittite, Paris 1985, 30.

⁶ Lindgren M., The Interpretation of Personal Designations in Linear B. Methodical Problems, Colloquium Mycenaeum, 81-86, 1979, 85.

⁷ This idea was first expressed proposed by E. L. Benett in his The Landholders of Pylos, American Journal of Archaeology, 1956, 119.

⁸ Benett E. L., 1956, 119; Parousis M., 1985, 44.

ri-na, a-du, ka-pa, ki-ri-ta.⁹ sa-ra₂ 120 is used independently before a list of different goods.

HT 90
i-ku-ri-na sa- ra₂ 120
20 ni **10** 608 **3** si-
ru-ma-ri-ta₂-120 **1** ni
1 622 **1** 304 **1**

On two occasions sa-ra₂ follows a summarizing formative (ku-ro) (HT 94a.3, 100.4). Besides, in the Mycenaean texts the pe-mo GRA (120) formula mainly is followed small figures, the largest being 42, or 94 in an incomplete version of the formula pe-ma 94.¹⁰ sa-ra₂ 120 is followed by quite big amounts (e. g. 976, 58, 40, 41...), which enables us suppose that in Linear A texts sa-ra₂ 120 did not indicate a plot size (see fig. 3).

HT 102
1. ka-pa- sa-ra₂ 120 **976**
2. 56-ni 574 **33**[
3. 100/102 574 **33** di-ri-na **10** ma
4. 321 **3** wi **10** i-ka **5**
5. ku-ro **1060** [

As Linear A and B economic records are similar in terms of structure, in order to find out the possible meaning of sa-ra₂ I attempted to rely on Linear B texts, which can be classed into the following groups:¹¹ 1. Lists of manpower and position holders, united by a human ideogram (Classes A, B), 2. The description of palace (goods) inventory including groups of cattle, plot statuses, (classes C, E, S, T), 3. The incomes and expenses of the palace. The latter group on its part can be divided into the following two types: a) manpower ration (Class F), which according to scholars, was sometimes given out in specified amounts in the form of a "salary"¹²; b) taxes and offerings to deities (Class U, Ma Series).

⁹ The interpretation of Linear A texts is presented taking into account the meanings of Linear B signs.

¹⁰ See Gordeziani L., DO-E-RO of Liner B Texts in the Context of the Social History of the Ancient World, Tbilisi 1999, 27-40 (*in Georgian*).

¹¹ For the classification of B Linear texts, I used the Pylian texts (E. L. Bennett, J.-P. Olivier, *The Pylos Tablets Transcribed. Part. I, Texts and Notes*, Roma 1973 and L. Gordeziani 1999).

¹² See Gordeziani L., 1999, 109-110.

I attempted to find out to which group of records we could assign Minoan texts containing sa-ra₂. It can be observed that they are similar to the B Linear records that deal with the incomes and expenses of palace. The Mycenaean texts referring to manpower ration or a “salary” issued by the palace normally consist of two or three components – mainly grains or some other products. Though sa-ra₂ most frequently precedes the account of economic goods, there is hardly any reference to a particular standard as sa-ra₂ can be followed by a ligature denoting various kinds of dishware (HT 32, HT 33, HT 103), or a human ideogram (see fig. 4).

HT 103

1. ka-pa []
2. 100/102 **234**
3. sa-ra₂ .100/102 **235**
- 4-5.]

As concerns taxes and offerings to deities, scholars identify two types of state tributes attested in the Mycenaean texts: taxes and labour obligation.¹³ There are cases when the records include terms that must be indicative of the type of obligation. S. Shelmerdine assumed that there must have been various systems of duties: ta-ra-si-ja / a-pu-do-si, o-pa, wo-ze-e.¹⁴ Presumably, any tax or offering was designated by do-so-mo / a-pu-do-si, which sometimes were substituted by o-pa. The term for labour obligation must have been wo-ze-e, which, according to Levan Gordeziani, could be removed after receiving a special deed ta-ra-si-ja.¹⁵ The quantitative ratios of various goods recorded in series PY Ma and KN Mc are stable and more or less alike, which prompts J. P. Olivier to speak about “the Mycenaean tax law”.¹⁶ He believes that each tax had its respective ratio, which, if multiplied by the indicated amount, would give the number of the population concerned.

We cannot say that the Minoan texts allow us to establish the system of state obligations. However, the records that include sa-ra₂ are closer to the Linear B texts describing taxes and offerings (e. g. Fg 253, Ma 120, Un 718).

Un 718

1. sa-ra-pe-da , po-se-da-o-ni , do-so-mo

¹³ See Gordeziani L., 1999, 98.

¹⁴ Shelmerdine C. W., *Industrial Activity at Pylos, Tractata Mycenaea*, 1987, 333-342, 337ff.

¹⁵ See Gordeziani L., 1999, 109.

¹⁶ Olivier J.-P., 1974, 23 ff.

2. o-wi-de-ta-i , do-so-mo , to-so , e-ke-ra₂-wo
3. do-se , GRA 4 VIN 3 BOS^m1
4. tu- ro₂ TURO₂ 10 ko-wo , *153 1
5. me-ti-to , V 3 TURO₂
6. *vacat*
7. o-da- a₂ , da-mo , GRA 2 VIN 2
8. OVIS^m 2 TURO₂ 5 a-re-ro , APERA V 2 *153 1
9. to-so-de , ra-wa-ke-ta , do-se,
10. OVIS^m 2 me-re-u-ro , FAR T 6
11. VIN S 2 o-da-a₂ , wo-ro-ki-jo-ne-jo , ka-ma
12. GRA T 6 VIN S 1 TURO₂ 5 me-ri[
13. *vacat* [] 1 V 1

The analysis undertaken revealed that in two cases sa-ra₂ follows a summarizing formative (ku-ro). In some Linear A texts sa-ra₂ can be found before or after an account of various goods, which is once again followed by a list of the same goods (e. g. HT 28b, HT 90). Besides, in two texts, sa-ra₂ is immediately followed by the numeral 20 (HT 93a, HT 11b). Especial attention should be paid to HT 11b text, where the combination sa-ra₂ 20 precedes an account, but the value of sa-ra₂ is not specified upon presenting the sum total. Consequently, the text can be understood as follows: 20 sa-ra₂ = 40 ka + 30ka + 50ka + 30ka + 30ka = 180 (ka) (see fig. 5).

HT 11b

1.] de-nu . sa-ra₂ **20**
2. 86 ka **40** ka **30**
3. ka **50** ru-79-na
4. ka **30** sa-qe-ri
5. ka **30** ku-ro
6. **180**

The above discussion may lead us to conclude that sa-ra₂ was a conventional measurement for taxes (or for duties in general), which was not limited to a particular tax and in various texts is applied to different goods and labour.

HT 95a

- 1. $\text{H} \times \text{I} \cdot \text{P} \text{H} \cdot \text{U} \cdot \text{I} \text{P}$
- 2. $2 \text{I} \cdot \text{U} :: \text{L} \text{V} \text{P}$
- 3. $\times \text{I} \text{L} \lambda \text{H} \text{H} \cdot \text{U}$
- 4. $\text{P} : \text{I} \text{L} \text{Y} \text{H} : \text{I} \text{I}$
- 5. $\text{U} \cdot \text{U} \text{P} \text{H} \text{I} \text{L} \text{U} \text{U}$
- 6. $\text{I} \text{I} \text{I} \text{X} \text{H} \text{I} \text{L} \text{I} \text{I}$
- 7. $[\cdot] \text{I} \text{I} \text{I} \text{I} \text{I} \text{I} \text{I} \text{I} \text{I}$
- 8. $\text{H} \times \text{I} [\] \text{H} \text{I} :$
- 9. $\text{L} \cdot \text{H} [] - \oplus \text{I}$

Fig. 1

HT 90

- 1
- 2 =
- 3
- 4
- 5 vacat

Fig. 2

HT 102

- 1
- 2
- 3
- 4
- 5

Fig. 3

HT 403

- 1 $\oplus \neq [\quad]$ Investigia
- 2 $\text{H} \circ = - \text{II}$
- 3 $\text{Y} \text{??} \cdot \text{??} \circ = - \text{III}$
- 4-5 $] \text{vacant}$

Fig. 4

HT 41b

- 1 $] \text{H} \text{??} :$
- 2 $\text{H} \oplus = - \oplus = -$
- 3 $\oplus = - \text{H} \text{??} \text{?}$
- 4 $\oplus = - \text{Y} \text{?} \cdot$
- 5 $\oplus = - \text{??} +$
- 6 $\circ = - = -$

Fig. 5