Animals and men at Knossos - the Linear B evidence

by

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Abstract:
The Knossos Linear B tablets dating to the Mycenaean period of this palatial site, register animals such as oxen, goat, pigs, horse and especially sheep (eg. one totalling tablet records over 10,000 sheep) the wool of which was used in the highly developed textile industry. The texts are mainly administrative and economic but although at times badly preserved and often brief, do, however, give interesting insights into the organisation of palatial society. The paper will give a general overview of the tablet series recording animals and the men registered with them. A new interpretation of ideogram *170 on tablet C 902 registering oxen is also proposed.

This cross-disciplinary conference has invited us to specifically treat the relationship between animals and man in antiquity and onwards. The focus of this paper will be on the animals and the men recorded in connection with them, in the Linear B material from the palatial site of Knossos on Crete. A large number of texts record animals as well as men. However, the relationship between the two is more difficult to ascertain. Linear B texts, brief as they are, invite us to educated guesses and confront us with more questions than they are able to provide us with solid answers.

First I will give a brief orientation for those with no prior knowledge of Linear B. I will then discuss some examples of texts recording different types of animals before treating more in depth a few chosen tablets, focusing on their particularities and offering some suggestions for interpretation.

Linear B texts are written in a syllabic script which, when deciphered, proved to be an early form of Greek. The Knossos texts inscribed on clay tablets date to the Late Bronze Age around 1400 BC. The tablets were preserved because they were baked in the conflagration when the palace was destroyed. About 3500 texts have been uncovered at Knossos in different parts of the palace.

The syllabic script, perhaps not ideal for the Greek language on the whole, was conveniently taken over by the Mycenaean when they came into influence on the island of Crete. It is also possible that the script was adapted to Greek at a Mycenaean centre on the mainland. About 75 scribal hands were active at Knossos.

About fifteen of them record animals. Some are more specialized than others, for instance, the main scribal hand responsible for recording sheep is Hand 117 who has around 600 tablets attributed to him. The texts were set up as an aid in monitoring the palatial economy. Although economic in character and purpose, they do deal with a variety of subject matters, such as personnel, crafts, perfume and textile industries, offerings, allocations of chariots and sheep-rearing etc. Despite being in many parts very fragmentary, the tablets allow fascinating insight regarding Knossian palatial society. The tablets come in two forms leaf-shaped and page-shaped. The texts dealing with animals are mostly of the leaf-shaped kind.

Animals recorded in the corpus of texts include horses, asses, pigs, oxen, goat and sheep. The latter were most probably reared to sustain the production of wool intended for the highly developed textile industry and only in minor part kept for other purposes such as leather production, consumption and offerings. Horses and oxen are recorded mainly as traction animals but some tablets registering oxen may suggest other uses, possibly for sacrificial purposes.

Horses and asses

Tablet Ca 895 records five female horses, nine male foals, three asses and two horses not designated to either sex. The tablet is broken and it is possible that initially more animals were recorded. Since there is no mention of a keeper or of a location, it is difficult to interpret the direct purpose of the tablet other than constituting a list of counted animals. The tablet has not been attributed to any particular scribal hand.

The Sc set of tablets in scribal hand 124 comprises about 170 very fragmented records registering allocations of horses, chariots and armour in connection with men’s names. Single horses are recorded as well as pairs of horses. The only reference to a locality is the adjec-
tival form a-mi-ni-si-jo of the place-name a-mi-ni-so, which recurs six times in the set. Perhaps the set of tablets registers the provision of a contingent of personnel with armour, chariots and horses from a-mi-ni-so or that the men were stationed there. It is likely that horses, in general, were kept as traction animals rather than for other purposes. Of the personal names recorded in the set, those that recur in other texts do so, with few exceptions, on tablets in the same scribal hand.

Pigs

Pigs are mainly mentioned in the corpus in two specific text sets. In the Co set in scribal hand 107 they are recorded together with sheep, goats and oxen, as pertaining to an a-ko-ra-ja of a specific given location. The adjectival term a-ko-ra-ja from a-ko-ra is likely to denote a collection of animals. The place-names given, for instance, ku-do-ni-ja (Chania) and a-pa-ta-wa (Aptera) suggest that these collections of animals were located in the western part of the island of Crete. About 320 sows and 41 pigs can be counted in the set. Several tablets are fragmentary and initially it is likely that more were recorded. The predominance of sows seems to indicate that the animals in question were used for breeding purposes although other uses cannot be excluded. One interesting set, the C(3), in scribal hand 109, comprises seven tablets registering pigs in

Fig. 1. Tablet C 902 (Corpus of Mycenaean Inscriptions from Knossos, eds. J. Chadwick et al., Cambridge – Rome 1986) (not to scale).
connection with local officials, the a-to-mo, da-mo-ko-ro and du-ma at different locations. The tablets have the sequence: title of official, ideogram and numeral. The officials are not mentioned by personal name and the ideogram is the generic unsexed ideogram for pig. Place-names given include do-ti-ja, ra-ja, pu-na-so, ra-su-to, e-ko-so, e-ra-wo, and *56-ko-we. Perhaps in analogy with the tablet C 902 (see discussion of tablet below) and the C(2) set recording sheep which are most probably destined for sacrifice/slaughter these pigs were perhaps also recorded for sacrificial or feast purposes. The tablets are brief and no further information is given. On some tablets recording pigs, notably Ce 113 and 8346 the adjunct ko is recorded probably a reference to piglets.

Oxen

Tablet Ce 59 in Hand 124 records oxen designated as we-ka-ta, a term most likely to refer to working oxen. The oxen are recorded against different place-names. Thus for the locality da-wo, six are recorded, for ma-sa, six, for ku-ta-to, ten, for da-*22-to six, for tu-ri-so six and for ku-do-ni-ja 50. Two personal names, possibly denoting the ox-herds, occur on the tablet, ta-ra-me-to and re-mo. The latter is possibly registered twice on the tablet. Of the two names only re-mo is recurrent on a tablet (Xe 691) in scribal hand 103, a scribe dealing with textiles. Probably two different individuals are involved since Ce 61 is in scribal hand 124 and thus likely to belong to an earlier destruction level. It is thus probably pure coincidence that on Xe 691 o-pi-gu-u is also recorded. The fragmentary gu-u could refer to gu-u-gu-ta, the term for ox-pasturer, or gu-u-ko-ro, the term for ox-herd. No other term in the Knossos corpus begins with the sequence gu-o.

Tablet Ce 61 in scribal hand 124 records oxen in connection with personal names likely to denote the ox-herds in charge. Of those mentioned all are hapax legomena, only ra-wo-ta-de recurs on Vc 203, a tablet that had been deliberately cut. It is possible that the same individual is mentioned on both tablets, since they are from the same find-spot and in the same scribal hand 124 but given the lack of more contextual information no definitive proof is possible.

Ce 144, a broken tablet, records a pair of oxen connected to the place a-pa-ta-wa. The personal name e-re-pa-ro or e-re-pa-to is also registered. e-re-pa-ro recurs possibly in the form of e-re-pa-i-ro on Vc 212, another tablet which has been cut deliberately and which is in the same scribal hand and has the same find-spot.

Ce 156 records the personal names te-wa-jo and j-na-za. The fragmentary tablet records three oxen, te-wa-jo recurs on two other tablets but there is no evidence to connect the three occurrences to one and the same individual. j-na-za is registered only on this tablet.

Six oxen are mentioned on Ce 8345 in Hand 124. Due to the fragmentary state of the tablet there is no other context. C 1044 and C 1582, two tablets unattributed to any specific scribal hand, record working oxen. The Ch set comprising 20 tablets are recorded in scribal hand 110 and deals with pairs of oxen probably teams of working oxen. The texts include detailed descriptions of the animals such as white muzzled, wine-like, ruddy etc. The animals are described possibly with a view to making it more difficult to substitute animals. No place-names are registered. About six personal names are preserved, of those only pu-ri and ta-za-ro recur in other contexts. No evidence suggests that the same individuals are recorded.

The C(1) set in scribal hand 107 registers oxen being sent. Destinations include e-wa-ta, ko-no-so and possibly ku-do-ni-ja, although the latter is not recorded in the allative. John Killen proposes to see the term e-wa-ta-de as meaning 'to the festival'. Moreover, as mentioned, it is likely that the C(2) set deals with animals intended for sacrifice. For instance the term sa-pa-ka-te-ri-ja is registered on C 941, most probably a description of animals intended for slaughter. Thus the oxen recorded in the C(1) set may be destined for sacrificial consumption.

Tablet C 902 (Fig. 1)

C 902 in scribal hand 201 registers oxen in connection with titles referring to local officials such as the ko-re-te, u-wo-ge-ne, e-re-ta and we-re-we at different locations. The sequence on C 902 is place-name, local official, the generic ideogram denoting ox (BOS) without sex differentiation, the numeral 1 is recorded after the BOS ideogram on nine of the 12 lines, the ideogram *170 preceded by the syllabogram ‘ne’ after which the number 12 is inserted. ‘ne’ is probably a reference to Greek newos, meaning new. Does the fact that the oxen ideogram is without sex differentiation support the idea that the animals recorded are bulls not yet castrated? The Ch tablets mentioned earlier registering working oxen in...
Sheep And Goat

Sheep-rearing at Knossos was at an industrial level and largely destined for the highly developed textile industry. A large number of sheep are attested on the Knossos tablets, in all about 100,000 sheep. The evidence for transhumance, a major theme of this conference, is not attested in the Linear B texts in the sense that we have no actual texts stating literally that so and so with his flock moved to greener pastures during certain times of the year. What is recorded are ‘shepherd’ names registered in connection with flocks at certain sites.

The tablets recording sheep usually have a set format as follows: personal name recorded in large characters and generally taken to be that of the ‘shepherd’, a place-name logically the location of the flocks, ideogram and number of animals. This paper will not deal with actual flock numbers.41

The personal names standing in the so-called ‘shepherd’ position may belong to the actual shepherds in charge. They may also refer to supervisors who are in some way responsible for the flocks but who do not actually herd them. The term shepherd itself occurs only twice in the corpus, once as a personal name (on Dd 1376) and in a very enigmatic text where the term ‘priest shepherd’ is inscribed.42 These individuals perhaps in their turn contracted under-shepherds to pasture the flocks, a phenomenon attested in the Near East at Nuzi.43 Numerous tablets have a second term recorded usually in the genitive case, but sometimes in the nominative, and interpreted as referring to individuals and conventionally labelled ‘collectors’.44 The ‘shepherds’ may have been in a dependent relation to the so-called ‘collectors’ who in turn were higher placed on the social scale.

Jose Melena has suggested that we could be dealing with transhumance in those cases where the same name is recorded with a different place-name.45 One would assume that the same shepherd accompanies the transhumant flock. However, it is interesting to note that out of roughly speaking 330 different shepherd names recorded in Hand 117 only 27, a relatively small number of identical names, appear in connection with more than one locality. I find this to be a low number and thus if one takes these men to be the actual herders it seems flocks monitored from Knossos were more stationary than transhumant.46 There may be other explanations. For instance, when it comes to identical names, it could just be a case of the same name denoting different individuals, given a common name pool at the time. Or it could also be that since the texts reflect occurrences for only part of the year they give a limited view.

We have no texts stating exactly how shepherding was organised. As no types of contracts are recorded we have no idea if one shepherd could work for or be dependent on another. At Knossos it is interesting to note that of the recurrent ‘shepherd’ names within hand 117, in all about 42 different names, only one is recorded with a different collector name. There is a possibility,
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By now I have strayed somewhat from the animals themselves and it is time to sum up.

The Knossos Linear B texts are brief and basically served as an economic monitoring tool. Due to their brevity it is not possible to shed light on many questions addressed in the call for papers, such as attitudes and mentalities towards animals, the caring for and treatment of them as well as ethical and moral issues.

In this respect the relationship between man and animals can but be gleaned, we are given glimpses when it comes to the rather personal descriptions of the oxen, the organisation of herders, the possibility that shepherds had other functions within the society, and maintenance of animals destined for ritual and other purposes. The distribution of the actual flocks as counted in the texts is also a source of information (see Rougemont this volume). However, the texts show us that the interaction between man and animal at Mycenaean Knossos was of major socio-economic importance.

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† This year 2002 it is 50 years since the Linear B script was deciphered by Michael Ventris. The results were published jointly with John Chadwick in the Journal of Hellenic Studies 73, 1953 in the article titled ‘Evidence for Greek dialect in the Mycenaean archives’. Much credit goes also to the ground work done by Alice Kober, see Kober 1948. See also Bennett 1951. The Linear B texts have been classified by content into tablet series and sets. Thus the C and D series deal with animals. Reference is made to KT for the specific tablets mentioned in this article.

‡ The archives of Pylos and Chania are dated to ca 1250 BC. Linear B tablets have been found at the following sites: Pylos, Mycenae, Tiryns, Thebes, Midea and Chania. In comparison with the archive uncovered at Pylos in Messenia, with some 1100 tablets, Knossos presents a slightly different picture. Of the Knossos documents 76% are incomplete and 56% average less than 5 signs. For Pylos the percentages are 50% and 33% respectively, see Bartonek 1983; For a list of recent finds see Olivier 2000.

§ It must be kept in mind that the different archival deposits at Knossos are most probably not all contemporaneous but probably belong to several destructions. For a discussion of the chronological aspects, see Driessen 2000, 9-12. It is likely that the tablets in scribal hand 124 from the room of the Chariot Tablets belong to an earlier destruction level as put forward by Driessen 1990. Statistical analysis of the personal names in the Knossos corpus also supports this view, Landenius Enegren 1999, 24.

∗ See Palaima & Sikkenga 1999, 599 for a discussion of the writing system and a more positive view.

† For a discussion, see Palaima 1988.

‡ Numbered 101 to 141 and 201 to 225, see Olivier 1967.

§ An exception being tablet C 902 in scribal hand 201 recording oxen.

In reality Hand 124 includes several hands, see Driessen 2000, 32 and 204.

* Driessen 1989, 204.

† Driessen 1996, 494 and ref in n. 97 regarding the fact that horses are not mainly produced for their meat and milk.

‡ Driessen 1996, 490.

§ Adjectival form of a-ko-ra see Docs, p. 200. See also Killen 1976 and Bennet 1992, 77 for the terms a-ko-ra-ja/Jo. See also Rougemont this volume for a discussion involving ‘collectors’.

† Godart 1972.

* I believe all three designations are likely to refer to titles rather than being real occupational designations following the interpretation for the term du-ma proposed by Lindgren 1973, II, 41.

‡ Killen 1994, 73.

§ For Near Eastern comparanda see Fales & Postgate 1992, 142-143, for Assyrian cuneiform tablets recording contributions probably from officials. See also offerings from officials p. 166 and 168. For a discussion of the C(2) set dealing with animals destined for a ceremonial banquet see Killen 1994, 79.

‡‡ Melena 1989, 235.

‡‡ Aura-Jorro 1993, 418-419.

† Not attested at Knossos but at Tiryns and Pylos. See Aura-Jorro 1995, 210 for the tablets concerned.

§ The cutting up of tablets probably reflect an administrative procedure, the exact purpose of which eludes us. See Driessen 1987, 160-161 for various suggestions.

† Uf 1038 and DI 7503.

‡ Killen 1995, 101. For a different view see Godart.
Perhaps to diminish the possibility of fraud, see Killen 1995, 102.

Unless *au-a-ta* is a scribal error for *au-to-a-ta* in which case the same person could be recorded on both tablets since C 1582 deals with working oxen and Ch 972 is likely to be in scribal hand 110, a hand recording pairs of what are most probably working oxen.

Killen 1994, 79.

Killen 1994, 74-75.

*mi-ru-ro* on line 1 occurs elsewhere in the Knossos corpus of texts as a personal name and it is probable that it is a personal name also on C 902 and not a place-name, even if the remaining terms in the same position probably refer to place-names. The tablet is broken and probably only half remains of the original (personal communication J.-P. Olivier). We can not exclude that other personal names may have been registered on the tablet.

*ko-re-te* most likely denotes a local official. For the term occurring at Pylos see Lindgren 1973, II, 84-85. *u-wo-ge-ne* p. 208, literal translation, overseer; *e-re-ta* p. 49. means r lever but is most likely to be interpreted as title and not in the literal sense of rower.

However, see n. 27 above.

I use the term ox generically as pertaining to bovines in general although its actual definition is that of a castrated bull. Melena initially interpreted the oxen ideogram on this particular tablet as representing hides. See Palaima 1989, 91 with reference to letter from Melena.

*ne-wo* may also refer to young.

All credit for this idea goes to veterinarian Leg Vet. Eva Örtenberg, National Food Administration, Uppsala, Sweden, to whom I am deeply grateful for discussing ideogram *170* with me at the Pecus conference. When I asked her for her spontaneous reaction regarding this ideogram, in view of her solid knowledge of animal anatomy and her lack of preconceived ideas about

I intend to treat tablet C 902 more thoroughly in a separate article and just mention here the following reflection: if C 902 indeed has sacrificial context it is interesting to note that oxen and scrotums are recorded on lists dealing with Assur temple offerings, see Fales & Postgate 1992, p. 184, 191 and 202.

The chronological difference between these texts and Linear B records and the danger of relating a phenomenon attested in one culture and apply it to another must, however, be kept in mind.

See Palaima 1989, 116-117 for a discussion of the term *jo-i-je-si* and various interpretations.


See Godart 2000, 252 regarding C 902 as recording animals for sacrifice.

Reference is made to the contribution of Francoise Rougemont in this volume.

Tablet Am 821.


Rougemont this volume and 1999.

Melena 1976, 142.

Although ethnographical evidence regarding pastoral societies shows that the distance between seasonal pastures need at times not exceed 15 km and could easily have been covered in a day’s walk, see Hole 1974, 207.

Olivier 1988, 238; Landenius-Enegren 1999, 43.

Landenius-Enegren 1999, 50.

### Bibliographical abbreviations:

**Docs**


**KT**


**Mykenaika**


**Publications**

Aura-Jorro 1985


Aura-Jorro 1993


Bartonek 1985


Olivier 2000

Palaima 1988

Palaima 1989

Palaima & Sikkenga 1999

Rougemont 1999

Whittier 1999