



Calvert Watkins

MÍR CURAD

STUDIES IN HONOR OF
CALVERT WATKINS

Edited by
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and Lisi Oliver

Innsbruck 1998

Of Donkeys, Mules and Tarkondemos

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1. In 1880 A. H. Sayce (1880a) listed the recent findings of "Hamathite" inscriptions, noted their importance, argued that they belonged to the Hittite Empire and deplored the absence of a bilingual (or digraphic?) text which would help with the understanding of the script. A few months later he announced the discovery of the "Rosetta stone of Hittite decipherment", a silver seal first published some 17 years earlier which in his view could provide the basic evidence needed for a decipherment (Sayce 1880b). This seal had, as so many others which became known later, a Cuneiform inscription round the border and a Hieroglyphic inscription in the centre (see Fig. 1).

Sayce read the Cuneiform as *Tar-rik-tim-me šar mat Er-me-e* and translated it as "Tarkondemos, King of the Land of Erme"; he followed the first editor in identifying the Cuneiform name with the Greek name Ταρκονδῖμοτος of a King of Cilicia of the end of the first century B. C. (Strabo, Dio Cassius, etc.). Plutarch (*Ant.* 61.2) had quoted the same name as Ταρκόνδημος, the name under which the seal became known in later studies. Sayce also established the fact that next to the central figure of the king the Hieroglyphic signs, twice repeated, were to be read from the top to the bottom on each side with the first two corresponding to the king's name, followed by the symbol for KING which in its turn was followed by the name of the land and by the LAND symbol (even if he then read the country name from bottom to top).¹



Fig. 1 The Tarkondemos Seal

Sayce's basic assumption that the Cuneiform and the Hieroglyphic signs were meant to convey the same information was correct as was also his discovery that the large triangle sign was the symbol for king (REX, Cun. LUGAL) and the double triangle the symbol for land (REGIO, Cun. KUR). For the rest this new Rosetta stone created as many problems as it solved. The reading of the Cuneiform was to go through a number of transformations and the reading of the Hieroglyphic signs was to change too, following on the one hand the slow decipherment of the Hieroglyphs, on the other hand the new interpretations of the Cuneiform signs and the improved knowledge of the Hittite variety of Cuneiform. To add to the problems the seal was lost until it miraculously reemerged

¹ Drawing of the Tarkondemos seal from W. Wright, *The Empire of the Hittites* (London, 1884).

in the Walters Art Gallery in Baltimore (Hill 1937). But well before that, as early as 1894, H.V. Hilprecht (1894:109ff) was able to list thirteen different readings for the Cuneiform; by then Sayce himself had replaced his earlier proposal with a different one: *Tar-qu-u-dim-me* seemed even closer to the Greek Tarkondemos. The later story has been related in full by Güterbock (1977),² but it is worth pointing out at the start that the so-called Tarkondemos seal is in a sense symbolic of the development of Hieroglyphic studies.

1.1. The decipherment of the Hittite Hieroglyphs bears no comparison with e.g. that of Linear B. It cannot be dated to a specific year or even decade and it cannot be attributed to any single individual; it is rather a remarkable example of cumulative work done by a number of experts all of whom at any given moment built on the work of their predecessors, while also being prepared to reject the earlier errors (including their own). For the smaller task, that of interpreting the seal (as indeed for the major one of deciphering the so-called Hittite Hieroglyphs) Gelb's example is representative: in *Hittite Hieroglyphs I* (1931:34) he preferred, following Sayce, *Tar-qu-u-tim-me* but in *Hittite Hieroglyphs II* (1935:20) he rejected with some regret his previous view and read *Tar-kum-mu-wa* in agreement with Albright (1927) who had proposed *Tar-qu-mu-wa*. By the time of *Hittite Hieroglyphs III* (1942:26ff) he felt it necessary to trace the history of "this infamous seal" and to return to the previous reading ^m*Tar-qu-u-ti(m)-me*. As Sayce once acknowledged (1930:48), mistakes are inevitable in pioneering work of this kind. We hope in what follows to add a piece—we would like to think it is the final piece—to this century-long work of interpretation of the Tarkondemos seal. It is a pleasure to dedicate this paper to Calvert Watkins, a friend of long standing who has contributed more than most other scholars to the linguistic study of Anatolian, but has always made clear that the philological analysis of texts or documents must come first.

2. If the reading of the name has remained controversial, that of the country was established some time ago. By the 1930's Albright (1927) and Friedrich (1930) had been able to correct the somewhat defectively written Cuneiform and read the name of the country as *Mira*, which had by then appeared in the Cuneiform Hittite texts: the owner of the seal was LUGAL KUR ^{URU}*Me-ra'-a'* 'king of the land of Mira'. In its turn this reading was bound to affect the reading of the Hieroglyphic part with the signs *mi* (*me* for Gelb), *ra* and *a* (*e* for Gelb). In 1935 Gelb (p. 14) could object to Meriggi's reading of the last sign of the city's name as *ra* that a vocalic reading was necessary since in the Cuneiform of Boğazköy the forms *Me-ra-a*, *Mi-ra-a*, *Mi-e-ra-a*, *Mi-i-ra-a* never showed a double *-r-* spelling. By 1977 Güterbock (p. 14) knew that the three possible transliterations of the Hieroglyphic (*mi+r-à*, *mi+ra-*, *mi+ra-à*) represented different

² For a full list of references, in addition to Güterbock (1977) and Nowicki (1982), cf. Mora (1987:i, 194). In what follows *HH* refers to Laroche (1960a) and *HH*, no. to the numeration of the Hieroglyphic signs defined by Laroche, *ibid.* For an updated version cf. Marazzi (1990).

conventions but reflected the same interpretation. We now transliterate *mi+rali-*, accepting the same point. *Mira* was one of the Arzawa countries, thus Luwian territory, and we expect the king's name to be Luwian.

2.1. The matching up of the Cuneiform and Hieroglyphic signs for the name of the royal owner of the seal turned out to be much more problematic, not least because it was felt that, by analogy with the country name, the Cuneiform signs were open to emendation. In the Cuneiform the initial *tar* sign was recognized from the start and never disputed, but the remaining wedges kept being differently grouped and differently interpreted. Güterbock (1977) gives a clear account of the progress of the discussion. Early efforts concentrated on attempts to find a correspondence with the name Tarkondemos. Later this was discarded as a red herring—correctly, though the name may usefully be retained to identify the object. As the decipherment of Hieroglyphic advanced, Cuneiform readings were sought which could in some way be linked up with the Hieroglyphic signs (Gelb's proposals described above fit into this pattern), but the problem remained extremely recalcitrant. The position is different today because a) we have proceeded much further in the decipherment of the Hieroglyphic script, b) we have new documentary evidence (seals) which we can bring to bear onto the problem, c) previous work, particularly by Güterbock (1975, 1977, 1987) and Nowicki (1982), has removed the major difficulties and opened the way to a real solution. Last but not least, as Güterbock pointed out, the increased knowledge of Hittite Cuneiform has imposed some constraints on the interpretation of the name.

By the time Güterbock reconsidered the problem in 1975 (p. 52) and 1977, rejecting some of his earlier views (1950), he was able to make serious use of his unique expertise of seals and of the much more advanced readings of the Hieroglyphic signs. As others before him, he could have no doubts about the fact that the Hieroglyphic name consisted of two signs only and consequently one or both of them had to be read logographically if they were to correspond to the numerous Cuneiform signs. Güterbock compared the first Hieroglyphic sign, an animal's head (Laroche, *HH* no. 101, here Fig. 2a), with the head of animal found in ASSUR f iv 3 (Fig. 2b), where it was followed by a Hieroglyphic word which Meriggi (e.g. 1967:140) read as *tar-ka-s-na-s* (we would now transliterate *taralika-sa-ni-sa*) and understood (because of the logogram) as either donkey or mule. Given that the first Cuneiform sign was *tar*, the Hieroglyphic word helped Güterbock, following the suggestion of M. van Loon, to reach the crucial reading *kaš* for the second Cuneiform sign, then slightly to emend the third



Fig. 2a
Tarkondemos



Fig. 2b
Assur Letter

sign to read *na*, giving an initial element *tar-kaš-na-* for the king's name. The name's final Cuneiform and Hieroglyphic signs still needed explanation. Güterbock proposed to read the last two Cuneiform signs as *-ti-wa* and the second Hieroglyphic sign as a logogram for the sun, i.e. for Hier. Luw. *tiwat-* 'sun'.³ The king's name would then have been *Targasnatiwa* rendered in Cuneiform as *Tar-kaš-na-ti-wa* and in Hieroglyphic as *101-*320 (with *101 = *Targasna-* and *320 = *Tiwat-*).

The 1975 and 1977 articles marked an important step forward though, as Güterbock himself suspected, they still did not offer the definitive solution. Five years later Nowicki (1982) pointed out that a compound such as that postulated was not plausible and that the reading of the second Hieroglyphic sign was not likely to be SOL 'sun'. Nowicki himself read the Cuneiform as *Tar-kaš-na-mu-wa*, returning to Albright's suggestion *-muwa* for the second part and accepting in full Güterbock's reading for the first part. But his perspicacious new step concerned the Hieroglyphic text: he pointed out that the second sign of the name could be a form of Laroche, *HH* no. 165 which is used logographically for BONUS and syllabically for *wà/i*. He preferred a syllabic reading both for this sign and for the animal's head; the protuberance under the chin of the latter he took as equivalent to the 'thorn', the *rali* sign. The whole sequence *Ta+rali-wà/i* was then taken as an abbreviated writing which simply rendered the first and the last syllable of the name *Tarkasnamuwa* found in the Cuneiform.

Here too some of the suggestions are both new and correct. Nowicki supported his reading of the second Hieroglyphic sign by comparing two seal impressions published by Güterbock in 1975 (51ff, see Fig. 3 a - b); in both of them, the central part, which is the only one preserved, has a broken version of the title *REX M[i+rali]-à [REGIO?]* and the name is written with the two signs *101 and

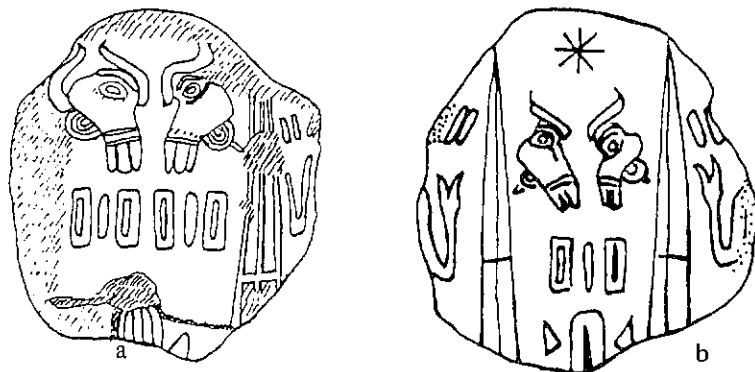


Fig. 3 Boğazköy seal impressions *Bo.* 388/2, 385/2 etc.
(from K. Bittel et al., *Boğazköy V* [Berlin, 1975])

³ Güterbock (1977:14f) identified a Late Period occurrence of the sign *320 on the late but archaizing SUVASA (inscription C) after *SERVUS*, 'servant'. He read the sequence as *mí-tí*, identifying *320 with *tí*, *HH* no. 319 (our *ta₄*) and thus obtained an Empire value *tí* for the sign. Though the damaged SUVASA sign does indeed seem to resemble *320, we suppose it to be either an incorrect archaism for *ta₄* or perhaps a logogram (see below, footnote 4).

*439. Nowicki's suggestion that the name is the same as that on the Tarkondemos seal is convincing and, if so, this confirms the validity of the reading BONUS i.e. *wà/i* on that seal, since Laroche, *HH* no. 439 is the standard sign for *wali* (never used as a logogram). Moreover, recently found inscriptions from the archive of bullae excavated at Boğazköy-Niğantepe in 1990/1991 provide ample evidence for the alternation *wali* ~ *320.⁴ Less convincing, however, is Nowicki's interpretation of the whole Hieroglyphic name. Abbreviated readings of the type he suggests are almost non-existent and if the second element of the compound were really *-muwa* we would not expect it to be expressed only by its second sign.⁵ Also in the Empire period it is far from certain that *101 can be used syllabically (see below pp. 250 and 252). Moreover the Cuneiform reading *-mu-wa* depends on a correction of the actual text, just as the reading *na* in Cuneiform *Tar-kaš-na-*.

3. Our own proposal is much simpler and, we hope, is definitive. Yet it depends heavily on both Güterbock's and Nowicki's insights, i.e. on the one hand on the link between the Cuneiform reading and the Hieroglyphic animal head (= *tarkasna-*) proposed by Güterbock together with the *kaš* value of the second Cuneiform sign, and on the other hand on the reading of the second Hieroglyphic sign as BONUS or *wà/i* proposed by Nowicki and later accepted by Güterbock (Boehmer and Güterbock 1987:83). Accepting both suggestions, the Hieroglyphic signs can be read as *101-*wà/i* and interpreted as *TARKASNA-wà/i* (logogram + syllabogram), where *-wà/i* is the final syllable of the name. The Cuneiform may now be easily read as *Tar-kaš-ša-na-wa* with the absolute minimum of emendation. The first two signs were validated by Güterbock (1977), the third is a perfectly acceptable form of *ša* (with the internal vertical absent as occasionally), the fourth sign is very different from Albright's and Nowicki's *mu* but very close to *na* (missing the lower diagonal only), and the final *wa* requires no emendation. Fig. 4 is adapted from that produced by Güterbock in 1977; both Nowicki's suggestions and our own are included.

⁴ If *320 is indeed the Empire Period form of *165, we would expect that in addition to the established syllabic value *wà/i*, it could have a logographic value BONUS which is not yet attested. We could then read *SERVUS.BONUS* in SUVASA inscription C (see above, footnote 3) and interpret it as a correct archaism with both signs used as logograms, "dear (good) servant" (cf. Hawkins 1998: *ad loc.*).

⁵ Cuneiform *kán-li* is Kantuzzili but this is not a two-element name. The supposed Hieroglyphic readings *há+li* and *mur+li* for Hattusili and Mursili must probably be rejected (Hawkins 1995:24f, 72), but in any case these too are not compound names.

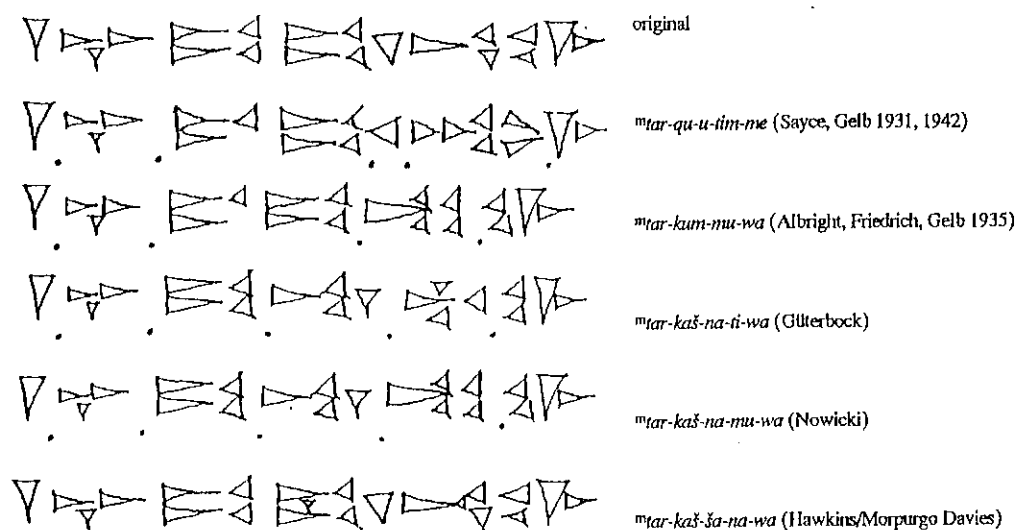


Figure 4

4. Our reading is established by purely epigraphical arguments, but something more needs to be said about the spelling of the name and the name itself. First of all are we ready to abandon Sayce's grand name Tarkondemos (i.e. presumably *Tarhunta-muwa*) for something as humble as 'Donkey' or 'Mule'? Is the very existence of such a name probable? And even assuming that the reply is positive, what would justify our Cuneiform spelling *Tar-kaš-ša-na-* in lieu of Güterbock's *Tar-kaš-na-*? The last question is easy to answer because, if the reading is correct, the nearest comparison is with the personal name *Targasnalli* of a king of Hapalla (Laroche 1966:179), obviously related to the Luwian noun *tar-ga-aš-ša-na-al-li-iš* (*KUB XXXV 111 iii 1*). The name is spelled both *-aš-na-* and *-aš-ša-na-*, while the two forms of the noun attested in Cun. Luwian have *-aš-ša-na-* (cf. for the evidence Tischler *HEG III 176 f.*; Melchert 1993: *s.v.*). Let us now assume that the Hier. Luwian *tarkasnis*, our main source for the basic word, does indeed mean 'donkey' or 'mule'. If so, *Targasnalli* ought to mean 'donkey driver' or 'muleteer', but what about *Tarkasnawa*? Is this a compound or a derivative of *tarkasnis*?

A compound seems unlikely, but then the final *-wa* remains unexplained. Presumably it is an additional suffix, as already suggested by Güterbock (in Boehmer and Güterbock 1987:83), but the question is whether it indicates a particular form of the name of the animal, so that the name would actually mean 'donkey' or 'mule', or a derivative, so that the name could mean e.g. 'rich in

donkeys or mules'.⁶ A clear-cut solution is not possible, but we can at least make some suggestions.

Anatolian onomastics includes a large number of names ending in *-wa* (Jie 1994:63), but some may be "Achaean" like *Tawagalawa* and conceivably *Antarawa* (see below) and most of them are in fact *a*-remodellings of *u*-stems: *Kukku*, *Kukkuwa*; *Lullu*, *Lulluwa*, etc. (see Laroche 1966:244ff, 313f). This is not the case here since *tarkasnis* is not a *u*-stem; on the contrary for an animal name we may expect a *na*-formation (Starke 1990:410, note 1477). However, names like *^mAn-ta-ra-wa-aš* (if not "Achaean"), *^mEN-ta-ra-u-wa*, *^mI-na-ra-wa* / *^mIn-na-ra-u-wa-aš*, *^mPa-ḫa-a-u-wa-aš*, *^mPi-ia-ma-ta-ra-wa*, *^dU-ma-na-wa* appear to have a *wa*-formant even if we cannot etymologize them.⁷ Next to *In(n)arawas* we have *^mI-na-ra-aš* / *^mIn-na-ra-a* which ought to speak for the segmentation of *-wa*. This is confirmed by the name of the well-known King of Tuwana (Tyana), *Warpalawa* (e.g. in BULGARMADEN and BOR; cf. Ass. *Ur-bal-la-a*) which must be built on the Luwian adjective *warpallali-*. For Luwian Starke (1990:183), following in footsteps of Laroche (1960b:125f), postulates a *wa*-suffix which forms both adjectives and nouns (often in combination with other suffixes) and means 'provided, equipped with'. If he is right in comparing this suffix with that found in the feminine personal names in *-wi* or *-wi-ja* of Hittite (*Pihawija*, *Zannawija*) which he derives from *-wa+ia-*, or even with the ethnics in *-wali-za-* of Hieroglyphic Luwian, we could hypothesize that *Tarkasnawa* includes the simple *-wa-* and has a meaning which ranges from 'provided with donkeys/mules' to 'in some way connected with donkeys/mules'. The plausibility in semantic terms of such a name is not in question. We have already referred to Targasnalli who was the king of Hapalla but in addition there is rich evidence in the area for names which literally mean donkey or mule; cf. Akk. *I-ma-ru-um*, *E-ma-ru-um* (*CAD, s.v. imēru*, 12') from *imēru* 'donkey' (other names in Hoffner 1966:398f), Akk. *Ku-da-nūm* (*CAD, s.v. kūdanu*, a 1') from *kūdanu* 'mule' or 'hinny', etc.

5. If the basic stem of Tarkondemos has now been demoted (or promoted?) from god to animal or to a lexeme referring to animal involvement, something more must be said about the animal in question. Why should it be an equid?

⁶In addition to Targasnalli we also have an example of *Ta-ar-ga-ša-an* in the Cappadocian texts (Laroche 1966:178). Presumably the name is related but the formation is not clear. For *-wa* one may point out that through a series of unrelated developments a number of Luwian animal names end in *-wali-*: *hawali-* 'sheep', *wawali-* 'ox, cow', *as(u)wali-* 'horse' as well as *walwali-* 'lion'. It would not be impossible, though highly speculative, to think of a *wa*-remodelling of the word for donkey/mule.

⁷Cf. Laroche (1966: *s. vv.*) for the references. Laroche thinks of *-wa-* as a secondary suffix extracted from the *a*-thematizations of *u*-stems. For our purposes what matters is that the suffix exists as such, not where it comes from. Neumann (1985:24) has suggested that in some instances (such as *^mKa-pl-u-wa*, *^m[M]a-az-la-u-wa-aš*) we are dealing with compounds of *uwa-* 'cow, ox', but it seems unlikely that this may apply to many of the names quoted above.

And if it is, and is not a horse (word and logogram are different), is it a donkey or a mule? More exactly is it a donkey or a mule (born from a donkey and a mare) or a hinny (born from a stallion and a female ass)? It is now time to turn to Hieroglyphic texts and logograms.

The animal head on the Tarkondemos seal is of a peculiar shape. It has a single swept-back ear and a large protuberance under the chin. Laroche (1960a: 63) listed it as no. 101 to distinguish it from the ordinary donkey's head (no. 100) which is clearly recognizable because of the characteristic long ears and which is used both in the second and in the first millennia as a syllabogram with the value *ta*. *HH* no. 101 also recurs on the Boğazköy seal impressions mentioned before (Güterbock 1975:51ff; Nowicki 1982:232, here Fig. 3 a-b) but here the protuberance has a much more definite shape; it consists of a half ring attached to the animal's chin with a short straight appendix. The 1990/91 archive of sealings from Boğazköy-Niğantepe has also produced a few signs of this type.

An Empire variety (perhaps more common) of Laroche, *HH* no. 101 has the same ear shape but no protuberance under the animal's chin. We may compare some Boğazköy seals, especially *SBo* II, nos. 182 and 191. Further evidence is now provided by YALBURT, block 13 §4a and block 3 §3, where in the first passage the logogram is preceded by the number 4100 in a text which refers to things encountered by Tudhaliya IV on campaign.⁸ Again the new Boğazköy-Niğantepe seals have produced an impression with the name *101-tà-li.

We have no direct evidence to equate Laroche, *HH* no. 101 with *HH* no. 100 in the Empire period, nor do we have Empire evidence which gives us a syllabic reading for *101;⁹ the Tarkondemos seal is the only document which provides a reading for the logogram. By contrast in that period a reading *ta* is assured for *100 by a series of reliable correspondences, while we have no clear evidence for a logographic *100.¹⁰ The evidence which allows us to give a lexical value to *100 and/or *101 comes from a combination of the Hieroglyphic texts of the first millennium and of Cuneiform Luwian texts from the second millennium with the seals which we have been discussing.

⁸Poetto (1993:62-64), Hawkins (1995:81f).

⁹For a phonetic reading of a version of *101 in the first millennium see 5.1, also below p. 252.

¹⁰For Empire *100 = *ta* cf. i) the toponyms Tamina and Tana (SÜDBURG, §§1b, 4b, and 16); ii) the uncertain group (-)ta(-)na-sa (EMIRGAZI altar B, §13; altar C has (-)tâ(-) which thus alternates with *ta*; cf. Hawkins 1995:95 with suggestions by van den Hout); iii) ta-ki-tu, the goddess (Daru) Dakitu (YAZILIKAYA no. 46. Laroche listed this occurrence separately under *HH* no. 116, being uncertain whether it was a hare or a donkey and his doubts were echoed by Güterbock 1975:180; in our opinion there is today no longer any doubt about this very good donkey head; cf. also Güterbock 1982:42f); iv) the name Hier. ta-ku-hi-li = Cun. Ták-hu-li-na, etc. (Laroche 1966:171); v) the Hier. taltà-ka- rendering of the name of the god Dagan, Cun. ^oKUR, in the Meskene seals.

5.1. For *HH* no. 100 the crucial first millennium texts are (i) ASSUR f+g, iii-iv, §§21-22; (ii) BULGARMADEN, §9, (iii) CEKKE, §6, in all of which we find *100 in logographic function, sometimes accompanied by the ANIMAL determinative. *100 is also the normal syllabogram for *ta*. In ASSUR, §22 Laroche recognizes a unique form of *100, but this logogram—an equid with one forward-pointing ear and a protuberance under the chin (Fig. 5b)—is much closer to a form of the Empire sign *101 and we shall transliterate it as such. The same animal head, but without the protuberance under the chin appears as a syllabogram with a *ta*-value (where we would expect *100) in the stela of MEHARDE-SHEIZAR (Hawkins 1979).

That *100 represents an equid and most probably a donkey is shown by the shape of the animal's head with its long ears. The meaning of *101, particularly in its Empire form, is less obvious, since the characteristic ears are missing; however the first millennium textual evidence speaks for linking *101 and *100. We may start with ASSUR f+g, §§21-24 (see Hawkins 1980:110):

| á-pi-ha-wali-za | *100 (ANIMAL)-na-zi | a-pa-zi | ARHA-' | MORI-ta ||
| u-nu-pa-wali-tu-u | (*101.ANIMAL)tarali-ka-sa-ni-sa | REL-ri+i | a-sa-ti
wali-mu-u | VIA-wali-ni
| a-wali-wali | ("PES")pa+rali-ri+i | ARHA-' | ("PES₂)a+rali-wali

"...for us those *100 (ANIMAL)-nanzi have died.
Now if there is a (*101.ANIMAL) tarkas(a)nis to you,
send (it) to me.
Come, shall I go out on foot?"

The somewhat different shape of the logograms *100 (Fig. 5a) and *101 (Fig. 5b), joined to the fact that the plural of tarkas(a)nis ought to end in -ninzi and not in -nanzi, speak for two different animals—though not very different given that one type is asked for in order to compensate for the loss of the other. Note also that the text makes clear that *101 indicates an animal used for transport. As noted by Hawkins (1980:110f); this speaks against the original suggestion by Gelb (1931:34) and Güterbock (1977:16) that *101 indicates a goat—a suggestion which Güterbock himself took back at a later stage (Boehmer and Güterbock 1987:83).



Fig. 5a
(ASSUR Letter f+g, §21)



Fig. 5b
(ibid., §22)



Fig. 5c
(BULGARMADEN, §9)

The ASSUR passage does not tell us much about the full reading of *100 as contrasted with *101 = *tarkas(a)nis*, but BULGARMADEN, §9 is more informative:

| á-p[a]-sa-pa-wali-mu-u (“*100”)tara/i-ka-sa-ni-ia-za (*92)za-la-la
 (“ARGENTUM.DARE”) pi-ia-ta

(“My lord Warpalawas I benefited well,
 and he sold to me chariots (?) for the (*100) *tarkas(a)ni-*”
 (or “he sold me the *tarkas(a)ni-* chariots”?).¹¹)

Here *100 (Fig. 5c) appears with the same (or a very similar) word as that which follows *101 in ASSUR; this should lead us to read *100-*nanzi* of ASSUR as *tarkas(a)nanzi*. But what is *tarkas(a)niyanza*? Formally both a dative plural and a nom.-acc. sing. neuter would be possible, but in either case we cannot start from a simple *na*-stem (the dative plural would end in *-nanza*). The simplest hypothesis is that this is a *-iya-* derivative of *tarkas(a)na-*, but see below.

The final bit of evidence comes from CEKKE, §7:

wali-ma-za 600 *100(ANIMAL)-i-za DARE-tá

(“Kamanis, the Ruler, ...Sasturas, ‘first servant’ of Kamanis, bought the city
 Kamana from the Kanapuweans....)

to them they gave 600 *100(ANIMAL)-i-za.”

After ‘gave’ we expect an accusative plural, but in Hieroglyphic Luwian a word of the common gender should have an acc. pl. ending in *-i-zi* and not in *-i-za*; more exactly we would expect a form like *100-*na-zi* of ASSUR. After a numeral a singular would also be possible, but a word of the common gender (the gender of the two ASSUR words) would require a *-na* ending. Meriggi (1967:109) thought of a collective noun and this still seems the most likely hypothesis. The *-i-* which precedes the *-za* of the neuter shows that we are dealing with a *-iya-* formation used here in the neuter nom.-acc. sing. *-iyanza* > *-inza*.

Finally a word about the stelae of MEHARDE-SHEIZAR (Hawkins 1979). Here in a series of clear words, including the particle *-ta* (*wali-mu-ta-*; cf. Hitt. *-kan*), the third person plural ending of the preterite (PONERE²-*wali-ta*, *za-wali-nu-wali-ta*), etc. *ta* is written with a version of *101 (see above p. 251). The stelae adopt a somewhat incoherent archaic style. We cannot exclude that it is a continuation of an older usage, but it is perhaps more likely that the sculptor imitated an attractive older logogram without worrying about its earlier function. Whatever the reason, the two stelae confirm the functional similarity of *100 and *101.

¹¹ For the meaning of *zalal(a)* see Starke (1990:337ff), who argues for ‘chariot’ on the basis of the logogram (a foot and wheels) and of the link with a reconstructed Luwian verb *zallaji-* ‘to move, travel’.

5.2. Purely on the basis of the textual evidence above it seems likely that the normal long-eared donkey logogram *100 corresponds to a *tarkas(a)na-* stem (ASSUR).¹² At the same time *101 with a single forward-swept ear is also written *tarkas(a)ni-* (ASSUR). How do we reconcile the *a*-stem of *100 in ASSUR (nom. pl. *-nanzi*) with the apparent instances of *i*-stems of *100 in BULGARMADEN and CEKKE and with the *i*-stem of *101 also in ASSUR (nom. sing. *-nis*)? The problem is not insoluble. If the long-eared donkey represented in *100 was called *tarkas(a)nas*, an adjective formed from this noun with a *-iya-* suffix would appear as *tarkas(a)nis* (in Cuneiform Luwian this would have been written *-ni-i-iš*, see Carruba 1982, Melchert 1990). The neuter nom.-acc. would then be *tarkas(a)niyan-za*.¹³ We know that a *-iyan-* sequence can (though need not) be replaced by a simple *-in-*,¹⁴ which explains the collective *100-*inza* of CEKKE. BULGARMADEN may contain the dative plural of (*101)*tarkas(a)nis*, but, if so, the *100 logogram is unexplained. Partly because of the word-order (i.e. the position before the noun) it is easier to take *tarkas(a)niyan-za* as an adjective nom.-acc. neuter and understand ‘donkey-chariots’ or the like. The difficulty is caused by *za-la-la* which looks like a neuter plural (though it would be possible to read it as a singular collective *zalal*); yet a failed agreement between neuter sing. and plural is not altogether surprising. There are examples in Hittite (Friedrich 1960:117) and Cun. Luwian offers instances like KUB XXXII 8 iii 16f *iš-ša-ra<-aš-ša>-an-za-ti-it-ta pa-a-ta-aš-ša-an-za ta-am-mu-u-ga la-a-at-ta* ‘he took the nail parings of the hands and of the feet’, where the two adjectives in *-assanza* (nom.-acc. neut. sing.) are meant to agree with the neuter plural *tammuga*.¹⁵

¹² The logogram *100 also appears before a different word in a very obscure context in KARKAMIŠ A 24 a 2+3 § 3 *pa+rali-na-sa-pa-wali-ta-* (URBS) (*100.ANIMAL) *tú+rali-la-ka-li-si-i-zi ARHA CAPUT.CULTER²-tá* ‘he/they -ed away the TURLAKALISI’s for/in/from the city Pamassa/i’ (but TURLAKALISI could also be subject). It is possible that we are dealing with a specific type of donkey. One may compare ^D*tu-u-re-eš-ga-la-* ‘harnessing god’ (KUB XXXI 127 i 62; cf. Tischler HEG III.461, s.v. *tūriya-*), but this is a clear derivative of the *ske*-iterative of *tūriya-* ‘harness’. Given the logogram, however, it is tempting to link our word too to the Hittite verb, particularly if one remembers phrases like ANŠE.KUR.RA *tūriyawāš* ‘draught horse’ and ANŠE *tūriyawāš* ‘draught donkey’ (Tischler, *ibid.*).

¹³ See e.g. the nom.-acc. neuter sing. *tatiyanza* = ‘paternal’ built on *tatis* ‘father’ and found in BOYBEYPINARI IV 3 B.

¹⁴ Cf. e.g. KARATEPE XIV 70 (Hu), where DOMINUS-*nī-za* ‘lordly’ (< *-niyan-za*) is an adjective nom.-acc. neuter singular built on DOMINUS-*nis* ‘lord’ (Hawkins and Morpurgo Davies 1978:107). Note that the nominatives of the common gender in *-is* are explained as due to “*i*-motion”; hence *-iyas* is replaced by *-iyis* > *-īs* (Melchert 1990:200ff), but the same explanation cannot account for the neuters where *i*-motion does not occur. If a phonetic development (contraction, syncope, etc.) is excluded, we shall have to reckon with analogy with the nominative and accusative of the common gender forms.

¹⁵ Cf. Starke (1990:46f), though differently from Starke we take the *-zal-sa* neuters as singulars.

If this is accepted, all forms associated with *100 represent either an *-a-* stem *tarkas(a)na-* or a *-iya-* derivative from it. We are then left with *tarkas(a)nis* associated with *101. Here the solution was first suggested by Meriggi (1967: 140), who without explanation translated *100-*na-zi* 'asini' (i.e. donkeys) and (*101) *tarkas(a)nis* 'muli' (i.e. mules). In 1980 Hawkins supported this view on the basis of the difference between the two logograms and later on Starke (1990:410), while suggesting that the *ni-* suffix was responsible for the fact that *tarkas(a)ni-* meant 'mule' rather than 'donkey', implied that *-ni-* in its turn derived from *-na+ya-*. This is indeed plausible and, if we take seriously the first millennium contrast between *100 and *101, we may posit that the basic *tarkas(a)na-* 'donkey' yielded an *-iya-* adjective *tarkasniya-* > *tarkasni-* 'of the donkey', which we find with this meaning in CEKKE and probably in BULGARMADEN. That same adjective, once substantivized, acquired a more specific meaning 'the donkey-like', 'that which pertains to the donkey', 'the donkey's descendant' (one may even think of a patronymic value) which would then lead to 'mule' or 'hinny'. Words for 'mule' or the like can be based on the word for 'donkey'; in Greek a mule is a half-donkey (ἡμίονος), in German a *Maulesel* ('mule-donkey') is a hinny; in Lithuanian next to *āsilas* 'donkey' there is a neologism *asilėnas* 'mule'. The evidence of the logogram confirms our suggestions. The animal of *101 looks like an equid but the different ears speak against a donkey; a hybrid is probable, but we cannot know whether it is a mule or a hinny. Both in reality and representationally mules have longer ears as contrasted with hinnies, whose ears are shorter, following the principle that hybrids inherit from the father the shape of the head and the tail (Salonen 1955:46,71,75; Clutton-Brock 1992:44); unfortunately our logograms are not clear enough to allow us to make a distinction in the first or second millennia.

6. So far we have concentrated on the texts of the first millennium and we have concluded that these provide evidence for both donkeys and hybrids. In the second millennium the only logogram known at present is *101 as it appears in the Tarkondemos seal and in the two other seals of the King of Mira. We cannot of course exclude that *100 too had a logographic use. For *101 Nowicki (1982) suggested that the protuberance under the animal's chin was in fact a rendering of the "thorn", the *rali* sign. This is implausible, inter alia because in the first millennium version from ASSUR the protuberance is very different from the shape of the *rali* sign found in that text. The explanation does in fact come from the other Mira seals discussed by Nowicki (Güterbock 1975:51ff, above Fig. 3). The ring-shape of the protuberance makes it clear that we are dealing with a part of the equid's harness, possibly with a throatlash, defined as "strap or thong passing under throat or rear of jaw from cheekstrap to cheekstrap and securing headstall" (Littauer and Crouwel 1979:7). We learn then that *101 refers (or can refer) to an equid with its harness. It is conceivable that this points to a riding animal or an animal harnessed to a chariot and we may remember in this context that hybrids had greater strength than donkeys and were more normally used for drawing chariots (though donkeys could be used too). As for the word, on the strength of the first millennium evidence we can now

return to the second millennium data provided by Cuneiform Luwian and by Luwian onomastics to which we referred earlier. We have on the one hand the Cappadocian name *Targasan* (Laroche 1966:178) and the name *Targasnallis/Targassanallis* (Laroche 1966:179),¹⁶ on the other hand *tar-ga-aš-ša-na-al-li-i[š]*, a word from a broken Luwian text, which does not allow a reconstruction of the meaning (*KUB XXXV 111 iii 1*), and the Luwian noun ^E*tar-ga-aš-ša-na[al-li]-ia-an-za* in an Hittite text (*KUB XXXI 71 iii 14*; cf. Tischler *HEG*, s.v.). The first word is normally translated 'muleteer' or 'donkey driver' (Pecchioli Daddi 1982:18; Melchert 1993:212); the second is rendered by Tischler (loc. cit.) as 'Gemeinschaft des Hauses der Eseltreiber', but we must realize that the connection with donkeys or mules is entirely based on the Hieroglyphic data of the first millennium, as was first shown by Laroche (1958:110 note 21).

A problem then arises: for the first millennium we assumed that *tarkas(sa)na-* meant 'donkey' and was rendered by *100, while the derived adjective *tarkas(sa)niya-* when substantivized indicated the hybrid animal ('mule' or 'hinny') and was rendered by *101. From the Tarkondemos seal, however, with the newly gained equation *Tar-kaš-ša-na-wa* = *101-*wāli*, we learn that *101 = *tarkas(sa)na-*. Is this a contradiction? Certainty is not possible, but we may remember the perennial discussions about the meaning of the various Sumerian forms with their Akkadian equivalents. Did ANŠE mean 'donkey' or was it a generic term for 'equid'? What are the exact distinctions indicated by forms like ANŠE.DUN.GI or ANŠE.LIBIR (probably 'donkey'), ANŠE.BARxAN (probably 'hybrid' from donkey and onager), ANŠE.GIR.NUN.NA (probably 'mule' or 'hinny')? This is not the place to reconsider that problem, all the more so since it is becoming clear that the terms and their usage change in the course of time (see e.g. Zarins 1978, 1986, Postgate 1986). However, the very existence of this discussion makes it possible that the Luwian terminology of the second millennium differed from that of the first millennium. In other terms it is conceivable (even if so far unprovable) that in the second millennium (and even later) *tarkas(sa)na-* was used generically for both donkeys and their hybrids, while later on a new term was created from a *-iya-* derivative.¹⁷ The first millennium use in MEHARDE-

¹⁶ The newly appeared *101-*tā-li* in a seal impression (see above p. 250) may be a *-tal(li)-* variant of *Targasnalli*; for the alternating forms in *-talali-*, *-alali-* see van Brock (1972).

¹⁷ It would help to know the etymology of *targas(sa)na-*, but here too nothing is certain. The best account of previous views is in Tischler *HEG* s.v. *targasnalli-*; Neumann (1964:61; 1979:266) argued for a compound formed by an adjective + *asna-*, a word which could be compared with Latin *asinus*, if this, as normally supposed, is not of Indo-European origin. Hoffner (1966:398) too made the same comparison with *asinus*, though he referred to an IE **osono-*; for the first element he thought of the IE root of Lat. *traho*, etc. (even if there are no parallels in Anatolian). The comparison with *asinus* seems possible (on the assumption that the word is not of Indo-European origin) and one cannot exclude a link with Sumerian *anše*. For the first element both Neumann's suggestion (1979, 266: cf. **trika-* in the Lycian divine name *Ἐπικασβος*) and Hoffner's etymology cannot be excluded but are not assured.

SHEIZAR of *101 for *ta*, a syllable elsewhere rendered by *100, if genuinely old and not merely archaizing, might point in this direction.

7. What does emerge from this excursion in the highways and byways of Luwian equid terminology?

First, a reading which at long last confirms Gelb's dictum about the Tarkondemos seal (1931:34): "In spite of the fact that it has been rejected by recent decipherers as without value for the understanding of the Hieroglyphs, I believe that its Hieroglyphic and Cuneiform parts agree with each other and with other comparable Hittite inscriptions". This is indeed so, but it took a long time to acquire sufficient knowledge of the Hieroglyphs to prove it; the seal provided us with the first evidence for two basic logograms REX and REGIO; the later inscriptions provide us with the knowledge of syllabograms and logograms which allows us to make sense of the name on the seal.

Secondly, a reminder and confirmation of some linguistic facts: *tarkas(sa)na-* is apparently an *a*-stem both in the Empire period and in the first millennium ASSUR text; it does not undergo "i-motion".¹⁸ The *i*-form *tarkas(sa)ni-* of the first millennium is in fact not a variant but a derived adjective formed with a *-iya-* suffix. The adjective may be substantivized and in that guise may have a different but related meaning. Following Meriggi, we postulated a contrast between donkey, the basic word, and mule or hinny, the derivative. The name *Tarkas(sa)nawa* is apparently built on the *a*-stem during the Empire period—which speaks for a connection with the word for donkey, though the logogram is that which we read as mule later on. Quite simply we do not have sufficient evidence to know if one and the same logogram in the early period covered both donkey and mules (or hinnies).

Finally in a paper dedicated to Calvert Watkins we cannot dispense with cultural phenomena. We have seen that the Akkadian parallels guarantee that it is not impossible to call a man and indeed a king 'donkey' or 'mule'. In our case we cannot know for sure the actual value of the *wa*-suffix in *Tarkas(sa)nawa*, but we must at least remember how important all equids (and not only horses) were in the second and first millennium economy. The Hittite laws establish the price of each animal: a sheep is a silver shekel, a ploughing ox twelve silver shekels, a draught horse twelve silver shekels and a mule (or a hinny) a silver mina, i.e. forty silver shekels. The importance of draught animals and pack animals in the ancient world is considerable and there is no reason to treat donkeys and mules as humble animals. In the Gilgamesh epics Enkidu is called a *kudānu ʔardu*, *akkannu ʔa ʔadī*, "a swift *kudānu* (mule/hinny), a wild donkey of the steppe";¹⁹ in Homer the two Achaean heroes, Menelaos and Meriones,

¹⁸ For the second millennium (but not for the first) it would be possible to think of an *n*-stem comparable to that of the Cappadocian name *Ta-ar-ga-ša-an*, later redetermined as an *a*-stem or an *iya*-derivative—once again something impossible to prove.

¹⁹Cf. CAD, s.vv. *akkannu* 1, *kūdanu* 5' for the references.

who carry away the body of Patroclus in the midst of the fiercest battle are compared to *ἡμίονοι κρατερὸν μένος ἀμφιβαλόντες* "mules who put on their mighty strength" and carry timber down from the mountains along a rugged track (Il. 17, 742 ff). As Watkins (1979) has shown, the standard categorization is in terms of a feature +EQUINE / -EQUINE and in Hittite texts ANŠE. KUR. RA.ḪIA 'horses', ANŠE.GİR.NUN.NA.ḪIA 'mules', ANŠE.MEŠ 'donkeys' occur in this order forming a sort of class (+EQUINE) contrasted with GUD 'cattle' (-EQUINE). Both categories belong to 'large cattle'. It is not surprising to see the names of the animals which belong to these categories being reused in onomastics. Again Watkins (1979:277) has drawn attention to Varro's statement about Roman names (RR 2 1 10): *nomina multa habemus ab utroque pecore, a minore Porcius, Ovinus, Caprilus, sic a maiore Equitius, Taurius, Asinius*. We may wish to speculate whether *Tarkas(sa)nawa* and the Cappadocian *Targasan* fit into this pattern. More daringly we may also ask whether Cappadocian names like *A-šu-la* and *Wa-wa-li* / *Wa-wa-lá*²⁰ (Laroche 1966: s. vv.) are in fact Luwian, are connected with horses and cows, and complete the Luwian version of Varro's triad.

ADDENDUM

After the submission of this article, J. D. Hawkins was examining some good photographs of the Karabel relief with its inscription KARABEL A (see K. Kohlmeyer, *Acta Praehistorica et Archaeologica* 15 [1983] 12-27). From this inspection he identified the name of the author, and collation on the spot in September 1997 gave the following reading:

- (1, sinistroverse) REX TARKASNA-wali REX *mi+ra/i-a*
- (2, dextroverse) AVIS_x REX *mi+ra/i-a* REGIO 'INFANS'
- (3, sinistroverse) ... INFANS 'REX *mi+ra/i-a* REGIO (?)' NEPOS

"(King) Tarkasnawa, king of <the land> Mira, son of BIRD, king of the land of Mira, grandson of ..., 'king of the land of Mira (?)'."

Thus the relief should be the work of the same Tarkasnawa of Mira as the author of the Tarkondemos seal and the Boğazköy seal impressions, Bo. 388/2, 385/2, etc. Hawkins proposes to report this, and its implications for the history and geography of Mira, in *Anatolian Studies* 48 (1998).

²⁰ We have quoted *Wawalali-* because it matches *Asula-*. but Neumann (1983:127; 1985: 24) draws attention to the Cappadocian *U-wa-a* and the later *U-wa-a* (Laroche 1966:200), which could be based on the second millennium word for 'cow, ox'; for the first millennium he follows Shevoroshkin in recognizing the Lycian word *wawa* 'cow, ox' in the personal names masc. Ουαουαζ, fem. Ουαουα.

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Calvert Watkins

MÍR CURAD

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