

Greek *mólybdos* as a Loanword from Lydian

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Beekes (1999: 7-8) has established that the oldest form of the Greek word for ‘lead’ is Mycenaean *mo-ri-wo-do* (for attestations of the word see Aura Jorro 1985: 1:457-458). Beekes reads the Mycenaean as /moliwdos/, but one must also consider /molivdos/, as suggested by Chantraine (1968: 710 and 1972: 205-206).¹ As per Beekes (1999: 10), all later variants of the word in Greek can be derived from the shape attested in Mycenaean.

The earliest Greek form /moliw/vdos/ precludes any connections of the word with Latin *plumbum* or Basque *berun* ‘lead’ (thus with Beekes 1999: 10-11). Beekes, who argues for Asia Minor as the source of the Greek word, cites in passing Lydian *mariwda-* after Furnée, but merely as an example of the sequence *-wd-* in a language of Asia Minor. He can do nothing further with the Lydian word attested as a divine name.

Recent research, however, has removed the Lydian word from its isolation and provided it with a meaning and morphological analysis. The word occurs just once in Lydian in Text 4a in a curse formula against a potential tomb violator (text per Gusmani 1986: 148): *fak=mλ śāntas kufaw=k mariwda=k ēnslibb[i]d* ‘Sanda and Kubaba and (the) *m*. shall *do harm* to him.’

The association of *mariwda* with Sanda points to a connection with the Luvian divine name /marway(a)-/, as attested in Hieroglyphic Luvian in KULULU 2, §9 (text per Hawkins 2000: 488): *wa/i-ru-ta* | (DEUS)*sà-ta-si-i-zi* | (DEUS)*ma_x+ra/i-wa/i-i-zi-i* | (“*256”) *tà-sá-za* | *a-ta* | “CRUS”-*tu* ‘Let the dark deities of Sanda step on his memorial.’ For the association of the *marwainzi*-deities (the form is animate nominative plural) with the god Sanda see Popko (1995:

93). For the reading as /marwainzi/ and interpretation ‘dark’ see Melchert and Starke apud Oettinger (1989/90: 97) and now Hawkins (2000: 489-490). As per Starke (1986: 162-163), the Cuneiform Luvian cognate is also attested in Hittite context as ^d*Mar-wa-ya-an-za* (dative plural), for which the Hittite equivalent is ^d*Mar-ku-wa-ya-aš*. The PIE root is **merk^w-* ‘dark’ as in English ‘murk(y)’ etc. (Neumann 1973: 298). Hittite *mark(u)waya-* and Luvian *marwaya-* form a direct equation reflecting an adjective **mork^wo-iyō-*. For this formation with the suffix **-iyō-* see Melchert 1990: 201-202.

It cannot be a coincidence that the single occurrence of Lydian *mariwda* accompanies one of only two instances of *Sanda* in our entire Lydian corpus.² Context argues that Lydian *mariwdaś* (with regular loss of *-ś* before *-k* ‘and’) is also animate nominative plural ‘the dark ones’ and refers to the deities who accompany *Sanda*. The Lydian word may reflect **mork^w-iyō-* (for the formation see again Melchert 1990: 201), with regular development to **marwida-* (Melchert 1994: 184-185). I now follow a suggestion of Norbert Oettinger (pers. comm.) in assuming that **marwida-* became **marwda-* with regular syncope (see Melchert 1997: 185) and then *mariwda-* with anaptyxis of *-i-* in the difficult cluster **-rwd-* (contra Melchert 2002: 242⁹ with the unlikely assumption of a direct metathesis **-rwi- > -riw-*).

We thus have good evidence for a Lydian adjective *mariwda-* ‘dark’. Its phonetic shape is approximately [marivða-]. For Lydian *w* as a voiced labial fricative [v] or [β] compare *lewś/lefs* as the Lydian rendering of ‘Zeus’, where *w* alternates with the voiceless labial fricative *f*. For Lydian *d* as something other than a stop [d] see Melchert 1997: 45 with references. A voiced “flap” as in American English ‘ladder’ is also quite possible instead of a fricative [ð] as in ‘lather’.

Names for metals are commonly derived from color adjectives: compare Latin *argentum* ‘silver’ < PIE **h₂erǵ-* ‘bright white’ or English ‘gold’ < PIE **ǵhel-* ‘yellow’. For ‘lead’ specifically as a ‘dark/black’ metal we may compare Latin *plumbum nigrum* ‘black lead’ (vs. *plumbum album/candidum* ‘white lead’ = ‘tin’).³ Use of Lydian *mariwda-* ‘(the) dark (metal)’ for ‘lead’ would be a case of a “transferred epithet”.

Greek substitution of /l/ for /r/ in the borrowing process is unsurprising. For variation between *l* and *r* within Lydian itself we may cite *mētlid/mētrid* ‘harm’. The Greek word for a kind of ‘scraper’ *stlengís/strengís/stelgís/stergís* (and further variants) probably represents a loanword from Hittite *ištalk-* ‘make smooth, flatten’ with original *l* (Neumann 1961: 94-95). The fact that /r/ and /l/ are contrastive sounds in both the source language Lydian and the borrowing language Greek does not in any way preclude the substitution. Speakers do not always make the expected identification of a sound of another language with the corresponding one in their own.⁴ Lydian *mariwda-* ‘dark, black’ is thus a suitable source for Greek /moliwdos/ ‘lead’ in terms of both form and meaning. The further plausibility of Greek /moliwdos/ as a loanword from Lydian depends on factors of chronology, geography and the material evidence for sources of lead in Mycenaean Greece.

I will first address the problem of chronology. The appearance of the word in Mycenaean requires borrowing by no later than the 15th century BCE, but it may have happened earlier (thus also Beekes 1999: 12). Van den Hout (2003: 304-307) has argued that the Lydian change **y > d* is already reflected in the place-name *Maddun(n)aš(š)a* and the personal names *Mad(d)unāni* and *Madduwatta* attested in Hittite cuneiform sources. He derives Lydian **madun-* from **may-un-* from **māi-won-* with the “ethnicon” suffix seen in Luvian *-wann(i)-* (e.g. ^{URU}*Ninuwawann(i)-* ‘of Niniveh’).⁵ The same word, without the characteristic Lydian sound change, he sees attested

in Greek *Me:ion/Maion-* ‘Maeonian’. The name Madduwatta (compare for the formation with van den Hout 2003: 305 the Lydian names Alyattes and Sadyattes) is attested already from the late 15th century.

The evidence just cited gives only a *terminus ante quem*. The borrowing could be considerably older. Differentiation of the Anatolian Indo-European languages must date minimally from ca. 2300 BCE, but it probably begins far earlier: see among others Carruba (1995: 30-31), Starke (1997: 457) and Oettinger (2002: 52). Since we unfortunately cannot independently determine the relative chronology of pre-Lydian sound changes, that of **y > d* could have happened any time during the period from roughly 2500-1500.

Beekes (2003) has now suggested that the Greek name for the Lydians *lūdó-* reflects the Lydian form of the name Luwiya.⁶ He plausibly assumes that when the Lydians moved from northwestern Asia Minor into classical Lydia, which was in the second millennium Luvian territory, they adopted the name of their new dwelling place. He dates this event to some time after 1200 and suggests that this is also the likely date of the change **y > d*. However, as he concedes, nothing at all precludes that the Lydians had had contact with the Luvians at a much earlier date and learned *luwiya-* as the name for the Luvians. It could then have undergone the change to Lydian **luw(i)da-* at *any time*, long before the Lydians moved southward and adopted the name for their own new country. I therefore stand by the claim that the Lydian change **y > d* and hence the borrowing of *mariwda-* into Greek could potentially have happened any time in the long period of approximately 2500-1500 BCE.⁷

I turn next to the matter of geography. There is a growing consensus that the Lydians in the earlier second millennium were located in the northwest of Asia Minor (later Mysia or Bithynia). See most extensively and emphatically Beekes (2002: 206-217), but compare also more

tentatively Starke (1997: 457), Neumann (2001: 46), Högemann (2001: 59-60), Oettinger (2002: 52) and Melchert (2003: 22). If the Greek word for ‘lead’ is a loanword from Lydian before 1500, then the Lydians must have found and exploited lead in northwestern Asia Minor, not in classical Lydia. Buchholz (1972: 49) cites areas in northwestern, northeastern and south central Asia Minor as possible sources for lead in Mycenaean Greece. Of those areas given for the northwest, one lies in Mysia and one in Bithynia. Either of these would be compatible with a Lydian source for the Greek word for ‘lead’.

I come finally to the question of what we know about the source of lead objects found in Mycenaean contexts.⁸ Buchholz (1972: 48) opted very cautiously for northwest Asia Minor: “Die Galena-Vorkommen des kleinasiatischen Westens...werden es gewesen sein, aus denen Troja und Teile der Ägäis beliefert wurden.” However, subsequent investigation, particularly lead isotope analysis, points to local sources of lead for objects found in Mycenaean contexts: the Cycladic island of Siphnos and the Laurion field in Attica (the former predominant in the Early & Middle Bronze Age, the latter in the Late Bronze Age). See Gale, Stos-Gale and Davis (1984: 390) and Mossman (2000: 87, 103-104). There is no positive evidence for importation of lead from the Western Mediterranean (Iberia, Sardinia) or from Asia Minor: see in detail Gale (1979). For negative evidence for at least some northwestern sites in Asia Minor see plots for 12, 14, 15 on his fig. 4 (for sites see fig. 1). Gale and Stos-Gale (1981: 217) arrive at similar conclusions.

Current evidence for the provenance of Mycenaean lead objects thus seems equally unfavorable to the two most popular hypotheses for the source of the Greek word for ‘lead’: a loanword from the Western Mediterranean or from Asia Minor. However, one fact about Mycenaean lead objects may still allow us to entertain northwest Asia Minor as the *earliest* source of lead for Mycenaean Greece. The distribution of lead objects appears to shift from the

Early to Late Bronze Age. EBA objects cluster in Troy, Lesbos, the Cyclades, East and Central Crete, with very few on the Greek mainland. Those of the LBA are concentrated in the Peloponnese, Argolid, Attica and Euboea (see Buchholz 1972: 23). Branigan (1974) reaches similar results indicating a possible east to west shift. Despite their results cited above pointing to Mycenaean exploitation of local sources of lead, allowance for a possible earlier source in Asia Minor is made by Gale (1979: 33) and Stos-Gale and Gale (1982: 472): “One interpretation of these facts (but an interpretation that awaits proof) is that sources of lead/silver for the Aegean may originally have been in the East.”

In sum, the borrowing of Greek /moliwdos/ ‘lead’ from Lydian *mariwda-* ‘dark, black’ is linguistically viable. Lydians living in northwestern Asia Minor in the late third and early second millennium BCE could easily have known and exploited local sources of lead. However, the evidence that Mycenaean Greeks were already chiefly exploiting local sources of lead for their use does seem to require that the putative first encounter of the Greeks with lead through the Lydians somewhere in northwestern Asia Minor—and hence the borrowing of the word for the metal—must have taken place at a relatively early date. Early in the second millennium or even late in the third would seem likely. Such a scenario is fully compatible with the Anatolian evidence (though it does require that the pre-Lydian sound change $*y > d$ be relatively early). One is then left to ask: would the Indo-European-speaking Greeks have arrived in time for such an interaction? I can only raise this question here and must leave the further debate over the much-vexed question of the “arrival of the Greeks” to others better informed on the topic.

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¹ Beekes admits (1999: 7¹) that the Mycenaean spelling is unexpected for /moliwdos/ (one would not expect a syllable-final glide /w/ to be written), but he then rejects Chantraine's alternative with the odd assertion that "there is no reason to suppose it" (1999: 9). I cannot accept Beekes' claim that a fricative [v] or [β] "makes the assumed developments more difficult if not impossible". Such a sound would lead to Greek *b* just as easily as a [w], and rounding of the preceding vowel by a labial fricative is far from impossible. The unusual Mycenaean spelling may therefore be an attempt to write an unassimilated foreign sound. The issue is in any case of no consequence for our purposes, since Greek would necessarily have adapted to a *b* either a labial fricative or a glide in the unusual position before stop.

² The other is in Text 79, a fragment from Aphrodisias in Caria (see Gusmani 1986: 154).

³ German *Blei* 'lead' and other Germanic cognates may also be derived from a color term seen in Lithuanian *blyvas* 'violet-colored'.

⁴ For example, American English and Mandarin Chinese each have both a retroflex /r/ and an /l/, but the English /r/ is nevertheless treated as an /l/ in Mandarin, as in: Marilyn Monroe > Malilian Menglu.

⁵ In view of other ethnic self-designations based simply on the word ‘people’ or ‘human beings’ Michael Weiss (pers. comm.) suggests the possibility that **māi-won-* is based on the same root as Hittite *maya(nt)-* ‘adult (male)’ and Cuneiform Luvian *mayašša/i-* ‘of the community’. This root would also be suitable semantically as the base of the name Madduwatta, a virtual **māi-wo-* *‘vigorous, manly’.

⁶ A derivation also made independently by Paul Widmer (Marburg). The borrowed stem *luwiya-* would by the regular Lydian sound changes cited above have led to **luwida-* and then syncopated **luwda-*, which could well have then contracted to **lūda-* with a long vowel preserved in the Greek form.

⁷ Such an early date for the change of **y* > *d* in Lydian does raise the question of how the Greeks received the version *me:ion-/maion-* with preserved **y*. However, it is by no means rare that a people become known not by their own name for themselves, but by the name that their neighbors call them. Thus the Greek may reflect a **māiwones* preserved in another adjacent Anatolian Indo-European dialect (cf. van den Hout 2003: 307-308).

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