

Graeco-Anatolian Contacts in the Mycenaean Period

§ 1: Background

Were the Mycenaean Greeks in contact with the Anatolian population of Asia Minor? – The question is difficult to answer for the periods preceding the late Bronze Age¹. But it can clearly be answered with yes for the late Bronze Age from an archaeological, historical, philological and onomastic point of view, taking the evidence together in a cumulative way²:

a) From an archaeological perspective, Milet is a center of Mycenaean presence in Asia Minor in the construction phases V and VI – i.e. from LH IIA to LHIIC (about 1450 to 1100 BC). With Milet as its center the zone of intense Mycenaean settlement extends as far as Boudrum/Halicarnassus³.

b) From a historical point of view, the place name *Millaua(n)da*, found in Hittite texts of the late Bronze Age, is no doubt identical with Greek Milet⁴. In the written sources, *Millaua(n)da*/Milet is repeatedly mentioned as situated in an area of conflict between the Hittite (*Hatti*) and the region *Ahhiia(ua)*. By method of elimination *Ahhiia(ua)* cannot be localized in the South-West of Asia Minor because there is simply not enough space for it there. This suggests that *Ahhiia(ua)* could be located in the South-Eastern Aegean or on the Greek mainland. Thus, the question has come full circle: *Millaua(n)da* (= Milet), which was populated by Greek settlers, served as a bridgehead in Asia Minor of a mainland Greek empire with the name *Ahhiia(ua)*.

c) The picture outlined under a and b is complemented by a philological and onomastic analysis of the Mycenaean texts respectively, which show clear references to late Bronze Age Asia Minor:

- The toponym *Ahhiia(ua)*, mentioned above under b, is usually associated with the ethnic name Ἀχαιοί < */Ak^haiu-oi/, which is the term by which the Homeric Greeks designate

¹ The hypothesis that Anatolians would have settled on the Greek mainland in the early Bronze Age is not sufficiently proved. It is based only on the so-called „Pre-Greek substrate”: specifically on Greek place names in /-sso-, -tto-/ (e.g. Πάρνασσός in the Phocis respectively Locris regions) and /-nt^ho-/ (e.g. Ἀμάρυνθος on Euboea). These are said to correlate to Anatolian place names in -ssa and -anda (see the material in Duhoux 2007, 225f., the research report in Renfrew 1998, 253ff. the summary in Finkelberg 2005, 42-64). As there are no other arguments, this hypothesis remains controversial (see the very constructive criticism in Chadwick 1969, 84ff. as well as Morpurgo Davies 1986, 111ff.).

² See a short summary of the entire argumentation in Schuol 2002, 345ff.

³ Further to the north of this zone – north of the peninsula of Mykale/Samsun Dağ – Mycenaean presence seems to be less intensive as it is limited there to trade contacts and trading colonies. See the summary in Niemeier 1998, 25ff., 2005a, 10ff. as well as 2007, 51ff.

⁴ For a detailed discussion see Niemeier 1998, 43ff., 2005a, 16ff. as well as 2007, 60ff.

themselves in the Troian war. This association implies that the equivalent place name */Ak^haiū-iā/ of the late Bronze Age refers to a Mycenaean state on the Greek mainland. An isolated reference from Crete may confirm this: The tablet KN C 914 lists a hecatomb of sacrificial animals. In this context, an indication of a direction is given: *a-ka-wi-ja-de /Ak^haiūia-de/*. This could refer to the name of a feast in the sense of „for the Ak^haiūia”. If this were the case we may assume that the feast (ntr. Pl.) Ak^haiūia was established by mainland Mycenaean, who had immigrated to Crete. The name of the feast can be seen as a reminiscence of their mainland Greek origins⁵.

- The Mycenaean tablets document a series of ethnic names from Asia Minor and the South East Aegean: The Pylian A-series lists a group of female textile workers from Milet (*mi-ra-ti-ja /Milātiai/*) or, possibly, Halicarnassus (*ze-pu₂-ra₃ /D^ēep^hurai/*). These women may be prisoners of war. Elsewhere, they are referred to as *a-*64-ja/a-swi-ja /Asūiai/*, an ethnic name for a heterogeneous group⁶. The toponym */Asūiā/, which underlies the ethnic name, in early Greek literature denotes a region in the northwest of central Asia Minor, in the linguistic form Ἄσιη. Myc. */Asūiā/ is unmistakably identical with the Hittite toponym Aššūua, apart from the form of the suffix. At the beginning of the Neo-Hittite empire, Aššūua is a state bordering on Hittite territory in the northwest, which is broken up by the Hittite King Tudḫaliya I (about 1420-1400 BC). Also Aḫḫiia(ua) is involved in the conflict over Aššūua⁷.
- The Linear B tablets from Knossos show series of syllables, which can be associated with names found in Asia Minor: There are names containing <pi-ja> as *pi-ja-ma-so* or *pi-ja-mu-nu*, which seem to correspond to the frequent Luwian type of names with a first verbal component */pi-jo/ „give”⁸. Further personal names which relate to Asia Minor are *i-mi-ri-jo* (KN Db 1186) */Imrios/* (cf. Graeco-Lyc. Ἰμβραῖος et al.), as well as *ru-ki-jo* (PY Jn 415.11, Gn 720.2) – This sequence of syllables may be interpreted as */Luk-ios/* and can be related to the toponym *Luqqa*, a region mentioned in Hittite documents⁹.

⁵ For this explanation of Myc. *a-ka-wi-ja-de* see Killen 1994, 78 and Weilhartner 2005, 75f. and 99.

⁶ See for more details in Parker 1999.

⁷ See for Aššūua see Niemeier 2007, 73ff., and from a linguistic point of view Watkins 1998, 202ff.

⁸ See for Luwian names with the verbal stem */pi-jo-/ Houwink ten Cate 1965, 175ff.

⁹ See for possible Mycenaean-Anatolian correspondences of names also the summary in Milani 2001. – According to Widmer 2007 the Mycenaean personal name *ru-wa-ni-jo* (KN X 7706+8108) */Luuanios/* is based on a toponym */Lūano-/ , which appears as a word for „Luwia” in Egyptian secondary sources. */Lūano-/ in this case is an alternative formation to Hitt. *lu-ú-(i)-ia- /Luū-ija-/*. If Widmer is correct, „Luwia” is indirectly attested in Mycenaean texts. Widmer’s interpretation of *ru-wa-ni-jo* however is doubted by Yakubovich 2008, 137f.

The arguments given in a) to c) combine to a complete picture: Mycenaean Greeks are in contact with people of southwestern Asia Minor. From the point of view of cultural history, this fact is hardly surprising: Archaic Greek mythology and the Greek epics show similarities to Bronze Age sources from the Near East¹⁰. Cultural parallels of this type date mostly from the first millennium BC. Already in Pylos, however, the ethnic name /*Asūiā*/ used as an eponym of a goddess *po-ti-ni-ja a-si-wi-ja* /*potnia Asūiā*/ (PY Fr 1206) is attested. Apparently the pantheon of Pylos was already familiar with a mother-goddess whose origins are in Asia Minor. This fact shows that there must have been intensive cultural exchange between mainland Greece and Asia Minor in the Bronze Age¹¹.

This situation suggests that the Greek language group was in contact with the Anatolian language group, involving the phenomena of languages in contact to be reckoned with. Greek and Luwian contacts are to be expected in the first place, as the main zone of contact (the south-western Aegean coastline) was Luwian speaking¹². However, contacts between the Greek and Hittite language group are not to be excluded. In fact, Greek and Hittite contacts are documented by the existence of a diplomatic correspondence between *Aḫḫiia(ua)* and *Ḫatti* attested in Hittite language.

§ 2 Methodological Questions

Language contact is manifested in borrowings of different intensity. The term „borrowing” is used in a broad sense in the following discussion, thus also including language change that is caused by contact¹³. Lexical borrowings are possible even if there is only limited contact between two speech communities. On the other hand, structural borrowings on a phonological, morphological or syntactical level require intense contact or a bilingual situation. The following table outlines the types of borrowings which are likely to occur in varying situations of languages in contact¹⁴:

¹⁰ See the summary in Burkert 2005, 292f.

¹¹ See the summary in Morris 2001.

¹² The relevance of Luwian for possible language contacts is pointed out by Starke 1997, 459.

¹³ A typology of language change triggered by language contact is presented in Aikhenvald-Dixon 2001b, 16f.

¹⁴ See the analysis and the examples in Thomason-Kaufman 1988, 35ff.

	(i) borrowing scenario	(ii) substratum/adstratum scenario
<i>lexicon</i>	numerous borrowings	no borrowings (at most isolated loan-words)
<i>phonology</i>	no interferences (at most isolated interferences with a high number of bilingual speakers)	numerous interferences
<i>morphology</i>	possibly morphological borrowings (via loanwords in the lexicon)	borrowings on the level of morphology generally scarce
<i>syntax</i>	no interferences	numerous interferences

This is only a very simplified account of the multitude of possible relations and backgrounds of borrowings but it is sufficient for the purpose of the present study¹⁵: In the following, lexical interferences are separately treated in § 3 as opposed to possible structural interferences (phonology, morphology, syntax), which are discussed in § 4.

Apart from the complex socio-linguistic situation, Greek-Anatolian language contacts in the Bronze Age raises a methodological question, which requires extensive discussion: Which are the comparanda, or what are the linguistic documents to be compared? – There is sufficient documentation of Anatolian in the second millennium BC, because of the cuneiform texts from the Hittite archives. There are also inscriptions in the Luwian hieroglyphic script which have an early date. For Greek, one can draw on the Mycenaean texts. However, these allow only limited insight into Bronze Age Greek. For this reason, records from the Homeric epics (and, sporadically, also other archaic poetry from the first millennium BC) are consistently introduced in the discussion about Mycenaean-Anatolian language contacts. In this context, it is pointed out that the Homeric epics, and their epic linguistic formulae, in particular, have their origins in (pre)Mycenaean times. It is assumed that in this way fossilized language relics from the late Bronze Age were passed on in Homeric poetic language into the first millennium BC¹⁶. This opinion, however, can hardly be considered unquestionable in the light of new research in the linguistic formulae in Homer¹⁷. Consequently, in the following discussion linguistic evidence from the Homeric epics – as well as from other archaic Greek sources – should be viewed with some reservations for the purpose of comparison.

¹⁵ An overview of the diversity of borrowing relations and their causes is found in Curnow 2001, 417ff. and Thomason 2001, 59ff.

¹⁶ See the summary in West 1988, 156ff. on the question of (Pre-)Mycenaean epics.

¹⁷ The dating of the Homeric epic is discussed in Hajnal 2003, 61ff. Hajnal suggests that the roots of the Homeric Epic should not be dated before the Post-Mycenaean phase, that is at the turn of the second to the first millennium BC.

The same holds true for documents in the Greek dialects of Asia Minor dating from the first millennium BC: Aeolian, East-Ionian and Pamphylian. Onomastic evidence – for example the deity names Διφία und Ἰωνά Ψσσα – suggests that Pamphylian Greek either dates back as far as the second millennium BC or that it has an old substratum as its basis¹⁸. For Lesbian and East-Ionian an early origin which has its roots in the late Bronze Age, or an older substratum, cannot be shown on the basis of the linguistic data. On the other hand, it cannot be excluded that the first Ionians or Aeolians reached their homelands in Asia Minor already in Post-Mycenaean times. If this was the case language contact in the last stage of the Bronze Age is a possibility. For this reason, in analogy to the Greek language of the Homeric epics, evidence from Lesbian and East-Ionian is not excluded from the discussion.

A final preliminary remark: The following discussion is limited to the influence of Anatolian languages on Bronze Age Greek. For there are no traces of Greek influence on Anatolian languages in the Bronze Age – in contrast to the first millennium BC.¹⁹ Thus, one major, undisputed result of this study is anticipated.

§ 3 Lexical and phraseological borrowing relations

a) Lexical borrowings

Loanwords from Anatolian can no doubt be found in Greek – apart from onomastic borrowings which shall not be discussed here. There is, however, no recent compilation of probable loanwords²⁰ and the lexical comparison proves to be very difficult in general. This is because not every parallel between the Greek and the Anatolian lexicon is based on a borrowing. Thus, „migrant” cultural words, as well as inherited words of common origin, are to be excluded from

¹⁸ See Brixhe 2002, 50ff.

¹⁹ The assumption that there are traces of Greek influence in the Hittite letter KUB XXVI 91 is convincingly rejected by Melchert, in Print. – *kurutaquant* is sometimes mentioned as a lexical borrowing from Greek in Hittite. It functions as an attribute of a priest or an idol. The basis of the word *kuruta-* resembles Greek κόρυς/myc. (gen.sg.) *ko-ru-to* /*korut^h-os*/ „helmet”. More precisely, though, *kurutaquant-* means „with a crown adorned by horns” rather than „with a helmet” (see Hoffner, 2000, 74). Thus it is not valid as an element of comparison. The Hittite theonym [^p*a*]-*ap-pa-li-u-na-aš* could be an onomastic borrowing if it corresponds to Greek (dial.) Ἀπέλλων < */*Apeliōn*/, and if */*Apeliōn*/ is of truly Greek origin, from Dor. ἀπέλλα „male society” (see the recent discussion in Beekes 2003).

²⁰ There are listings of possible Anatolian borrowings in Greek, which are in part outdated, in Gusmani 1969, 508f and Szemerényi 1974 (for earlier literature also see Morpurgo Davies 1986, 106²²). – For a short, up-to-date summary see Yakubovich 2008, 183ff.

comparison²¹. The remaining Greek lexemes can be identified as loanwords from the Anatolian languages if they fulfill at least three of the following four conditions:

- a) Their phonological form precisely equals the phonological form of the Anatolian source language – or, if different, can be plausibly justified by the inaccurate reproduction of foreign phonemes in Greek.
- b) Their meaning corresponds to the meaning in the Anatolian source or can be deduced from it.
- c) No other source language can be identified that they could be allocated to.
- d) They show traces of the phonology or morphology of the Anatolian source language.

These conditions can be illustrated by the following two examples:

- Gr. μόλυβδος/myk. *mo-ri-wo-do* „lead” completely meets the conditions: There is an underlying adjective **/mork^h-io-/* „dark”, as in the Lydian theonym *mariwda(ś)-k* „the dark ones”. The phonological development **/mork^h-io-/* > **/maru^hido-/* > **/mari^hudo-/* with a transition from **/^oV_iV^o/* > **/^oVdV^o/* proves μόλυβδος/*mo-ri-wo-do* to be a loanword from Lydian; the semantic development from „blue, dark (sc. Metal) to „lead” is unproblematic²².
- However, the common equation of Gr. θύρσος „staff entwined with vine or ivy” with H-Luw. *tu^harsa/i-* „vine; vineyard” must be rejected: Neither can the difference of the initial sound be justified by the conditions of transfer, nor the semantic difference. Thus, it is better to assume a „migrating” cultural word at the basis of both lexemes.

If one applies the above criteria consistently there remain only a small number of Greek lexemes which can be considered as Anatolian borrowings apart from μόλυβδος:

- δέπας/myk. *di-pa* „cup; pot; vessel”, possibly from H-Luw. (CAELUM)*ti-pa-s^o* „sky”. Regarding the semantics of this word it should be added that the H-Luw. ideogram CAELUM depicts a bowl. Furthermore, the Hittite equivalent *nēpis* „sky” occasionally also denotes a „cup”²³.

²¹ Among these migrant cultural words there are terms for materials and metals such as ἐλέφας „ivory” (besides Hitt. *lahpa-* also Phoen. *’lp*, Egypt. *3bw*), κύανος „dark blue glaze; enamel” (besides Hitt. ^(NA4)*ku^hannan-* „copper ore; azurite” also Sumer. *kù-an* „(a valuable metal)”) or ὄβρυζα „vessel for refining gold” (besides Hitt. *huprušhi-* „vessel” also Ugarit. *hptr* or *hbrt*).

²² See Melchert 2008.

²³ See Neu 1999 and for further considerations Watkins 2007, 319ff.

- κύμβαλον „cymbal”, possibly from Hitt. ^{GIŠ}*huhupal* „(a wooden percussion instrument)” Gr. /^o*mb*^o/ can function here – as well as in the following κύμβαχος – as a (pre)Mycenaean realization of a foreign /^o*b*^o/²⁴.
- κύπελλον „cup”, possibly from the Hitt. term for cup ^{DUG}*kukupalla-*. Additionally, κύπελλον can be compared with C-Luw. *hupalla/i-* (and Hitt. ^(Uzu)*hupallaš-*) „skull”. Anatol. */*h*/ is realized as Gr. <K> in the Greek of the first millennium. For the semantic development cf. Lat. *testa* „potsherd, pot” vs. Fr. *tête* „head”.
- κύμβαχος „helmet” perhaps from Hitt. *kupaḫi-* „headgear” (from Hurrit. *ku-(-ú)-ua₄-ḫi*). Regarding /^o*mb*^o/ see the remark on κύμβαλον.
- τολύπη „ball of wool”, possibly from Hitt. *taluppa-* (or C-Luw. *taluppa/i-*) „lump”.²⁵

Hence, the results are very insubstantial. This picture would not change if one or the other problematical lexeme was added to the list above, or removed from it. The list consists mainly in Hittite cultural words – whereas opposed to the expectation mentioned in § 1, there are almost no Luwian words.

b) *Phraseological borrowings in a narrow and in a wide sense*

The relevant literature of the last two decades leads to the impression that the Homeric epic and, in particular, the Iliad contains numerous phraseological borrowings from Anatolian languages. These borrowings seem to be conditioned by the „Anatolian” theme of the Iliad – the fight for Troy – and could, as argued in § 2, hint at a Bronze Age legacy. The following examples may illustrate the broad spectrum of phraseological borrowings:

- 1) Translated borrowings, e.g., in Hom., *Il.* A 290f.: Agamemnon comments on Achilles to Nestor as follows: εἰ δέ μιν αἰχμητὴν ἔθεσαν θεοὶ αἰὲν ἔόντες | τοῦνεκά οἱ προδέουσιν ὀνειδέα μυθήσασθαι; „Even if the eternal gods have made him a chariot fighter – do they support him uttering blame?”. The translation of the word προδέω is problematic, because normally it does not mean „to support” but rather „to hurry on ahead”. Puhvel 1988 points out a parallel to this otherwise unusual meaning in Greek with a reference to the Anatolian languages: In these, the equivalents of προδέω such as Hitt. *parā/piran huiāi-* „to hurry ahead” are indeed found in the above meaning of „to help; support”.

Further examples of translated borrowings are: Hom. διέτμαγεν „they went” (to διατμήγω „cut through”) from Hitt. *šarra-* „cut; leave” (Puhvel 1988, 592f.); Hom. ἐν δέ μιν αὐτὸν εὔρε „they found him there” from Hitt. *anda ... uemija-* „get together, meet” (Puhvel 1993); Hom. κύάνεαι ὄφρῦες „dark eyebrows” analogous to C-Luw. *kuuannani-* „eyebrow” (Högemann 2000b, 29). – According to Watkins 1998, 206ff. also the twofold

²⁴ For /^o*mb*^o/ as (Pre)Mycenaean representation of the later /^o*b*^o/ see Hajnal 1993.

²⁵ See Melchert 1998.

naming of the Troians in the Iliad belongs to the broader context of translated borrowings. On the one hand Homer uses the native name, on the other hand the corresponding Greek epicleresis: see Hom., *Il.* Z 402f. τόν ῥ' Ἔκτωρ καλέεσκε Σκαμάνδριον, αὐτὰρ οἱ ἄλλοι Ἰαστυάνακτ'· οἷος γὰρ ἐρύετο Ἴλιον Ἔκτωρ. „Him (sc. his son) Hektor called Skamandrios, but others called him Astuanax; because Hector alone had saved Ilios”.

- 2) Adoption of foreign phrasemes, e.g. if fortune turns against a person, Homer speaks of fortune „lying down on the ground”: see Hom., *Il.* Θ 73f. αἰ μὲν Ἀχαιῶν κῆρες ἐπὶ χθονὶ πουλυβοτείρῃ ἰέζεσθην, Τρώων δὲ πρὸς οὐρανὸν εὐρὺν ἄερθεν. Puhvel 1983, 221ff. compares this with Hittite phrases such as KBo VI 13 18 ^{GIS}*elzi-mit-ua taknā aršikkīt* „he lay my scales of fortune on the ground (actually „planted them in the ground”). A further example for the adoption of a foreign phraseme: Hom. γαῖα μέλαινα „black soil” from Hitt. (Nom.) *dankuiš daganzipaš*, (Dat.) *dankui daganzipitaknī* etc.²⁶

- 3) Reflexes of a foreign ritual, economic or socio-cultural practice, which normally is accompanied with phraseological parallels as in 2), e.g.: In Hom., *Il.* Γ 276ff. Agamemnon calls upon Zeus and Helios as his divine witnesses before a ritual (Ζεῦ πάτερ Ἰδηθὲν μεδέων κύδιστε μέγιστε, ἠ Ἡέλιός θ'). Puhvel 1991, 9ff. sees in this an Anatolian practice, because in Hittite texts often the storm god and the sun god are called upon as witnesses when swearing an oath.

Further examples for reflexes of a foreign ritual, economic or socio-cultural practices: The contract between the Troians and the Achaeans, as described in Hom., *Il.* Γ 94 as well as 276-301, is modeled on Hittite oaths of allegiance, according to Starke 1998, 483. According to Watkins 1998, 204ff. and 2002, 167ff. the four terms κασίγνητοι, γαμβροί, λαοί and ἐπίκουροι used in the Iliad to denote social stratification are based on an Anatolian pattern. Watkins (2002a and 2002, 169) also sees the model of the Greek αἰγίς (in Homer as well as in Pindar) in the Hittite cult object ^{KUŠ}*kuršaš* „hunting pouch”. There are also stylistic parallels: see Hitt. *našta anda ... kitta* and Hom., *Il.* E 740 ἐν δ' Ἐρις ..., in each case for „in it (sc. in the *kuršaš* or the αἰγίς) were ...”.

These three types of borrowing situations vary in their linguistic relevance for predicting the probability of direct language contact:

- Translated borrowings (calques) normally indicate direct language contact. However, the assumption that a word is a translated borrowing is only justifiable if the word in the target language is not sufficiently motivated etymologically or morphologically. An example may illustrate these facts: Watkins 1995, 39 sees in Gr. ἔμπορος „merchant” (perhaps also in the Myc. name [Gen.Sg.] *e-po-ro-jo* KN Ch 897) a translated borrowing

²⁶ See Oettinger 1989/90, who suggests for a Hurrian origin of this phraseme. In fact, the expression „dark earth” is attested in a Hurrian-Hittite bilingual document: Hurr. *timerrē ešeni dūri* (KBo XXXII 13 I 10), corresponding to Hitt. *kattanta tankuiai táknī* (ib. II 10). In this case, the Anatolians were not the creators of the phraseme but the transmitters.

from Hitt. *unatallaš* (agent noun to *unna-* „to send so./sth. here”). Within Greek, however, ἔμπορος does not represent a verbal relational compound from πορῆν „deliver” as Watkins suggests. It is rather a prepositional relational compound from ἐν πόρῳ „on a journey”. Thus, ἔμπορος is sufficiently motivated within Greek. Therefore the assumption of a translated borrowing does not seem to be of advantage.

- The significance of the adoption of foreign phrasemes and, to a higher degree, the significance of reflexes of foreign cults, as well as economic and socio-cultural practices is limited what regards their relevance for sociolinguistic conclusions on the situation of languages in contact. Foreign elements of this type may be spread via literary subjects and genres in the globalised Aegean world of the Bronze Age (see § 1 for cultural contacts). This is why they can hardly be associated with a specific situation of contact or a specific source language. In addition to these facts, a certain cultural continuity in the southwest of Asia Minor is to be reckoned with. Incidentally, cultural continuity is undisputed for the southeast (Northern Syria) due to the existence „Neo-Hittite” city states in this area. An analogous situation in the southwest is postulated by Starke 1997 and Högemann 2000a and 2000b: According to them, also in the southwest of Asia Minor Luwian culture and social structure have been preserved until the first century BC. Thus, the Trojan society as described in the Iliad, is assumed to be a direct reflex of a Bronze Age Anatolian social structure. This „continuity hypothesis” may be doubted in various respects. However, these limitations play only a marginal role for the present study²⁷. It is far more decisive that, as a rule, phrasemes which are assumed to have been borrowed, as well as reflexes of foreign cults and foreign economic and socio-cultural practices in the texts can hardly be assigned to a certain era.

An example may illustrate this: The contract between Trojans and Achaeans, already mentioned above, includes the following curse directed against themselves (Hom., *Il.* Γ 298ff): Ζεῦ κύδιστε μέγιστε καὶ ἀθάνατοι θεοὶ ἄλλοι | ὀππότεροι πρότεροι ὑπὲρ ὄρκια πημήνεια | ὧδέ σφ’ ἐγκέφαλος χαμάδις ῥέει ὡς ὄδε οἶνος „Glorious Zeus and all you immortal gods: the brain (ἐγκέφαλος) of those, who first break the oaths, shall flow to the ground like water.” Starke 1998, 483 interprets this to be a direct phraseological analogy of a Hittite instruction for low rank palace servants: *nu-ua-kán apēl ZI-an DINGIR.MEŠ úiṣtanaš / iṣar arḫa lāḫḫuātén* (KUB XIII 3 III 1-2) „(He who commits an impure act and gives the king foul water, –), oh gods!, pour out his substance of life (ZI = *ištanzana-*) like water.” However, there is no exact analogy between the Homeric and the Hittite phrases, because Homer does not use the abstract „substance of life” (Hitt. ZI = *ištanzana-*) but the concrete word „brain” (ἐγκέφαλος). The Hittite metaphor, though, of „pouring out the substance of life” has exact Neo-Assyrian parallels²⁸. For these reasons,

²⁷ See the critical analysis in Blum 2001 and 2002.

²⁸ See Rollinger 2004.

the Homeric curse can neither be traced back with certainty to an Anatolian source language nor can the Bronze Age be postulated to be the only time possible when the phraseme could have been taken over²⁹.

All this goes to show that possible phraseological borrowings in the Homeric epics are not conclusive as to the question of Greek-Anatolian language contacts: Apart from the doubts raised in § 2, what regards the use of the Homeric epics (and other literary sources of the Archaic period) as documents for Bronze Age Greek, most of these borrowings cannot be placed in time nor traced back to a specific source. Even if one accepts, not being over-critical, one or the other parallel as a Bronze Age borrowing: the number of parallels is very small compared to the mass of borrowings from the Middle and Near East, which enter the Greek language during the oriental era in the first millennium BC³⁰.

§ 4: Structural borrowings (phonology, morphology, syntax)

a) Borrowings on the phonological level

The Greek dialects of Asia Minor – the East-Ionian dialect as well as the Aeolian dialect of the Island of Lesbos – show „psilosis“: this is the reduction of initial, antevocalic $/\# hV^\circ/$. Oettinger 2002 interprets this development as a result of contact with the surrounding languages of Asia Minor³¹. He refers to the Anatolian phonemes which had developed from the old inherited laryngeals. These phonemes seem to be reduced in some Anatolian languages of the first millennium – especially in Lydian. Following Oettinger this reduction started in the Bronze Age and also affected $/\# hV^\circ/$ in the surrounding Greek dialects.

However, the interpretation of psilosis in the Greek dialects of Asia Minor as a phenomenon of contact is uncertain for two reasons:

- Firstly, the loss of reflexes of the inherited laryngeals in Anatolian affects original $*/\# h_3V^\circ/$ in both Lycian and Lydian. The reflex of original $*/\# h_2V^\circ/$ is affected in Lydian only. It is improbable that these languages went through a stage with an aspirate $/\# hV^\circ/$ – which could have influenced the surrounding Greek dialects. Original $*/\# h_2V^\circ/$ results in velar reflexes, in Lycian in all positions, and in Lydian in word interior position³². Thus, original $*/\# h_3V^\circ/$ remains as the only possible source h_3 , on the development of which nothing exact can be said because of a lack of evidence.

²⁹ Haas 2007, 6 referring to this curse and similar incidences, cautiously suggests the existence of a „Fluch- und Eidtradition im Vorderen Orient, die sich punktuell noch im homerischen Zeitalter in Ionien erhalten (haben könnte)“.

³⁰ See the collection in West 1997, 220ff.

³¹ See also Högemann 2003, 8 and Yakubovich 2008, 186f.

³² See Melchert 1994, 64ff., in general, and for Lydian, in particular, Melchert 2004, 142ff.

- Secondly, Greek psilosis is not a phenomenon that is limited to the Greek dialects of Asia Minor at the end of the second millennium BC. In fact, it seems to appear independently and well before the first intense Greek-Anatolian contacts in Mycenaean Greek of the Aegean region. An indication for this development is, among others, the infrequency of the sign <a₂> /^ha/ on the Linear B tablets of Knossos³³.

Thus, psilosis in the Greek dialects of Asia Minor cannot be taken as a phenomenon of languages in contact. This does not mean, however, that Mycenaean-Anatolian language contact could not have led to phonological changes: For example, the dialect of Pamphylia shows phonological developments in the first millennium that may have been triggered by the impact of a Bronze Age adstratum, such as rhotacism /^oVdV^o/ > /^oVδV^o/ > /^oVrV^o/ as in *Ἐπιτιμύραυ* < **Ἐπιτιμίδαυ* or aphaeresis as in *Θαναδωρύς* < *Αθαναδωρύς*³⁴. Both phenomena are attested for the Luwian languages as early as the end of the second or the beginning of the first millennium BC³⁵.

b) Borrowings on the morphological level

Mycenaean Greek uses possessive adjectives ending in /-io-/ as patronymica: cf. *Myc. a-re-ku-tu-ru-wo e-te-wo-ke-re-we-i-jo* /*Alektruōn Eteuokleu^hios*/ (PY Ad 654.8f.). This archaic usage continues in the Lesbian dialect, among others, a fact which is attributed to interference from the Anatolian languages by Watkins 2001, 58. The Luwian languages, however, display a widespread and diversified use of the inherited suffix *-io-³⁶. It is hardly plausible, due to three facts, that there is a direct relation between Anatolian adjectives and the archaic usage of the Lesbian patronymicon:

- Greek *io*-adjectives that denominate belonging or possession of objects (cf. Thessal. *Αφιονεία α σταλα τουφρονέτος*) are not attested in Lesbian³⁷, but are common usage in

³³ See Risch 1983, 386 and 390 ref. 63. – A further argument for the assumption that psilosis in the Mycenaean dialects of the Aegean has emerged without external influence can be found in the Greek dialect of Crete in the first millennium BC: In Crete, those regions, in particular, are psilotic in which evidence for an „Aegean substrate” can be found (see Bile 1988, 101f.).

³⁴ See Brixhe 1976, 83f. (on rhotacism) and 43 (on aphaeresis).

³⁵ See Melchert 1994, 237 (on rhotacism) and 276 (on aphaeresis).

³⁶ See Melchert 1990. – In addition, Watkins 1998, 203f. refers to Hom. Ἄσ(φ)ίω ἐν λειμῶνι Hom, *Il.* B 641, which, according to Watkins, shows an Anatolian usage of -ιος („the morphology and syntax of Ἄσφιος is both Aeolic and Luwian”; ib. 204). In fact, the Luwian languages show an analogous usage of adjectives in /-i̯o/i̯-/ with place names: Cf. Lyc. *tuminehija kumezija xāk-bija kumezi[j]a* (TL 44b, 54f.) „holy district of Tymnessos and holy district of Kandyba”. This usage, however, is common to Mycenaean, as well: Cf. *ke-re-si-jo we-ke* /*krēsio-uergēs*/ „of Cretan origin (PY Ta 641.1+), with adj. /*Krēsios*/, derived from the toponym Κρήτα.

³⁷ See Hodot 1990, 228.

the Anatolian languages. This discrepancy could hardly be explained, if Lesbian had been influenced by the Anatolian languages.

- In the Luwian languages the possessive adjective originally ending in **/-io-/* appears in „*i*-mutated” form as **/-i̇o/i̇-/*. Thus, its Proto-Luwian paradigm can be reconstructed as: nom.sg.comm. **/-īs/* < **/-i̇is/*, acc.sg.comm. **/-īn/* < **/-i̇in/*, nom./acc.sg.ntr. **/-i̇on/* < **/-ion/* etc.³⁸. If there is an actual influence from the Anatolian languages on Greek this morphological change should also become visible in Greek. This is actually the case – but only from the late Hellenistic period onward, when the boundaries of stems in *-io* and *-ic* are beginning to be blurred: cf. for example the personal name *Ταρασις* versus *Ταρασιος* (Pisidic, Lycian etc.)³⁹.
- From the Mycenaean period onwards, there are strong interferences between adjectives of possession ending in */-io-/* and adjectives of matter in */-eio-/*⁴⁰. Like in Mycenaean (cf. Myc. *wi-ri-ni-jo* along with *wi-ri-ne-jo* *[ur̥in-io- ≈ ur̥in-eio-]* „made from leather”) also in Lesbian adjectives of matter in */-io-/* instead of **/-e(i)o-/* are attested: cf. Lesb. *χρυσιος, χαλκιος* (instead of **χρυσεος, *χαλκεος*)⁴¹. This suggests that the Lesbian usage of */-io-/* should in any case be viewed as an independent archaism, also in regard to patronymica.

Another possible phenomenon of contact in the domain of verbal morphology is suggested by Puhvel 1991, 13ff.⁴²: the East Ionic and epic iterative preterits in */-ske/o-/*, e.g. Hom., *Il.* P 225ff. *ἔνθα δέ οἱ δέπας ἔσκε τετυγμένον, οὐδέ τις ἄλλος | οὔτ’ ἀνδρῶν πίνεσκεν ἀπ’ αὐτοῦ αἶθοπα οἶνον, | οὔτε τεφ σπένδεσκε θεῶν, ὅτε μὴ Διὶ πατρὶ* „Inside there was a uniquely crafted chalice for him (sc. Achilles). No other man drank dark wine from it, and he bestowed from it to none other than Zeus.” Puhvel compares this to the Hittite *šk*-iteratives/distributives⁴³ and assumes a „Sprachbund” phenomenon: „If indeed the East Ionic epic *-σκε-* conjugation is of Anatolian inspiration it may be less due to conscious copying than to a kind of ‘Sprachbund’ effect cutting across contiguous or overlapping linguistic boundaries ...” (Puhvel 1991, 20).

In fact, there are certain parallels between Hittite and East Ionic epic usage: As in Greek the Hittite *šk*-iteratives/distributives appear frequently in a series and may occur in epic mythological

³⁸ See Melchert 1990.

³⁹ See Brixhe 1987, 67.

⁴⁰ See the summary in Hajnal 1994.

⁴¹ See Hodot 1990, 233ff.

⁴² This hypothesis is supported by Watkins 2001, 58.

⁴³ It should be pointed out that only the Hittite *šk*-iteratives/distributives may serve as elements for comparison. In Luwian, however, the underlying verbal suffix **/-s̥ke/o-/* develops into palatal **/-(s)ṛe/o-/*: e.g. C-Luw. *ḫaluatna-zza-* „to get angry”. Furthermore, Luwian shows preference for the suffix **/-se/o-/*, in the same function: cf. C-Luw. *pipišša-* „to give”.

narratives: cf. GÌR.MEŠ-*aš-šaš* GAM-*an ħinkiškitta* NAG-*na-šši-kan* GAL.ḪI.A-*uš ŠU-i-šši zikkizzi* „at his feet he (sc. Kumarbi) bowed and put drinking vessels in his hand” (KUB XXXIII 120 I 17). This may indicate an Anatolian interference on a literary level. However, the assumption of an Anatolian interference is not necessary, because there is a plausible explanation for the East Ionic epic σκ-iteratives within the Greek language itself: A typical feature of the preterits of the type ἔσκε, πίνεσκεν or σπένδεσκε (as in the example given above) is their lack of the augment. Recent hypotheses suggest that the Greek augment */(h₁)e-/ originally was an actualizing particle with *hic-et-nunc-deixis*⁴⁴. In this case the missing augment in the iterative preterits is well motivated: A timeless past as expressed by iterative preterits cannot be combined with a particle that is limited to personal accounts with a topical aspect. Thus, the East Ionic epic σκ-iterative preterits represent an archaism, which is neither unusual for archaizing poetic language nor for a region at the fringe of the Greek linguistic community.

c) Borrowings on the syntactic level

Watkins 1995, 150f. and 1997, 618 points out a striking parallel in the area of particles: The Homeric particle -ταρ – which is mistaken as τ'ᾶρ in numerous editions⁴⁵ – corresponds in usage to the Cuneiform Luwian particle *-tar*.

Cf. Greek-Anatolian parallels ...

- */*k^his-tar*/ as in Hom., *Il.* A 8 τίς τάρ σφῶε θεῶν ἔριδι ξυνέηκε μάχεσθαι; „Who of the gods has brought these two together for fighting?” or C-Luw. *kuiš-tar malḫaššašanza EN-ia ādduḫala ānniti* ... (KUB IX 6 III 12) „Whoever acts evil against the lord of this ritual ...”;
- */# *Verb + -tar*/ as in Hom., *Il.*, Λ 254 ῥίγησέν ταρ (τ' ᾶρ) ἔπειτα ἄναξ ἀνδρῶν Ἀγαμέμνων· or C-Luw. *^DTarḫunza mammanna-tar* (KUB XXXV 43 II 36) „Tarhunt, be weighed”.

As Hom. -ταρ and C-Luw. *-tar* have no close parallels in the remaining Indo-European languages Watkins l.c. suggests an areal linguistic common element. However, the particle */*-tar*/ is elusive in both languages: C-Luw. *-tar* functionally corresponds to the Hittite sentence particle *-šan* and has a locative connotation⁴⁶. Hittite *-šan*, as well as C-Luw. *-tar* take the final position in the sentence initial string of particles. Thus, they seem to be of adverbial origin. The Homeric particle -ταρ, however, regularly appears in the second position. This position is typical of discourse particles in Homer⁴⁷. Thus, it seems obvious to take -ταρ as a discourse particle. In this case Hom. -ταρ can hardly be linked to C-Luw. *-tar*, which always takes the last position in the string of

⁴⁴ See Pagniello 2007, 116ff. with references.

⁴⁵ See Katz 2007 for a detailed discussion of the textual transmission.

⁴⁶ See the a summary in Yakubovich 2008, 177ff.

⁴⁷ On the position of the particles in Homer, see recently Hajnal 2004.

particles, as pointed out before. Thus, neither an etymological nor an areal linguistic connection can at present be postulated⁴⁸.

On the level of case syntax Högemann 2003, 8f. assumes Anatolian influence in the case of the Greek accusative of relation – the so-called „accusativus Graecus”. This accusative is found in Greek poetry and is only used to express an inalienable possession as is the case with body parts: e.g. (Ἀγαμέμνων) ὄμματα καὶ κεφαλὴν ἴκελος Διὶ τερπικεράυνῳ „regarding eyes and head like Zeus the lightning” Hom., *Il.* B.478)⁴⁹. In fact, there are analogies in Hittite and in Luwian texts⁵⁰. It is worth noting that the context of usage remains unchanged since Homer – the Greek accusative of relation is not touched by poetic innovation and appears alien to the system⁵¹; on the other hand, there is a striking parallel to the Tamyīz-construction in Semitic, in which a functionally comparable accusative signifies an inalienable possessum, which is specified by a predicative⁵². Both observations, in combination, suggest the tentative conclusion that the Greek accusative of relation – as well as its counterpart attested in Hittite – is a syntactical instrument that entered poetic language by adoption of certain literary themes from the Middle East⁵³.

§ 5: Assessment

No doubt Mycenaean Greeks and Anatolians were in close contact towards the end of the Bronze Age. Linguistically, however, this contact can only be proven within limits:

- Loan words, which are of Anatolian origin, on the one hand, and which, on the other hand, have been adopted as early as the second millennium, can be found in Greek only in a very limited number (see § 3a). Generally speaking, these are cultural terms which probably have made their way into Greek through trade connections.
- Phraseological parallels between the Anatolian languages of the second millennium and Greek seem to be somewhat more common than loan words (see § 3b). However, those phrasemes are by their very nature only attested in the Homeric epic rather than in Mycenaean – in which context the methodological objections pointed out in § 2 shall be re-

⁴⁸ Katz 2007 points out that C-Luw. *-tar* always shows lenis writing – which may be an indication for an underlying form with an initial **/# d^o/* – or possibly **/-d^(h)r/*. In this case a connection with Hom. *-ταρ* is out of the question, anyhow.

⁴⁹ See Jacquiod 2006.

⁵⁰ Cf. Hitt. *tákku LÚ.ULÙ^{LU}-an EL-LAM KAḫKAḫ-šet kuiški uāki* KBo VI 3 Vs. I 33 „if someone bites the nose of a free man”; H-Luw. *wali-tá VIR-ti-i-zi-i* (‘PES’) *pa-ti-zi* | ARHA (‘MANUS+CULTER’) *REL+rali-ha-’* „I cut off the men’s feet”. See Garrett-Kurke 1994, 77ff.

⁵¹ See Jacquiod 2006, 93ff.

⁵² See Wasserman 2003, 29ff. with references.

⁵³ See Burkert 2005, 295ff.

ferred to. An additional difficulty is provided by the fact that in Asia Minor the transition from the second millennium to the first millennium did not involve a cultural discontinuity (cf. the section on cultural continuity § 3b). The phraseme Hitt. *parā/piran hūuāi-* „to hurry ahead” in the sense of „to help, support”, for example, survives in Hieroglyphic Luwian in the first millennium⁵⁴. Thus, the analogous semantic development of „to hurry ahead” to „help” in Hom. *προθύεω* could also be explained through Anatolian influence in the first millennium BC.

- Most of the typological borrowings postulated in the specialist literature cannot be confirmed if analyzed more closely (cf. § 4). The „accusativus graecus” used in the early poetic language is perhaps the only case of an early interference. In this case, however, the interference is hardly to be attributed to living language contact but rather to poetic imitation of a literary model.

The following conclusion can be drawn from these data: The linguistic interferences between Mycenaean Greek and the Anatolian languages of the late Bronze Age are scarce. They point to a moderate borrowing scenario, according to the typology given in § 2. There is no evidence for the existence of a virtual „Sprachbund” – as suggested, e.g., by Watkins 2000b, 1143ff.

These results are not unexpected if one looks at the historical sources: In the *Tayagalaya*-letter *Hattušili* III (1264-1240 BC) addresses the sovereign of *Ahhiyaia* as equal high king. In the earlier and the later sources, however, no sign of an equal rank of the ruler of *Ahhiyaia* can be found. Thus, at least diplomatic contacts seem to be limited to a very short period of time. As pointed out in § 1, **the Mycenaean sphere of influence in Asia Minor is also relatively restricted geographically: Intense Mycenaean settlement is to be found in the archaeological records only for the region between the Peninsula of Halicarnassus in the south and Milet in the north (and in the islands off this coastline, between Rhodes in the south and Kos – possibly also Samos – in the north)**⁵⁵. In this sense, an intense Mycenaean-Anatolian contact can only be assumed for a limited period of time and for a limited geographical region. This is not sufficient for having an impact on Mycenaean Greek on the Greek mainland as well as in the Aegean islands. The presence of workers from Asia Minor and/or prisoners of war (cf. § 1c) in the Mycenaean empires is not sufficient either to leave traces in Mycenaean Greek.

Another important factor to be taken into consideration is the fact that, for the present, the only contacts proved by the records are on a diplomatic, i.e. elitist, level⁵⁶. It remains to be doubted

⁵⁴ Cf. e.g. H-Luw. KARKAMIS A11b, § 11: *uāli-ma-tà-´ PRAE-na PES₂(-)REL₂-ia-ta* „they (sc. the gods) ran from me” in the sense of „they support me”.

⁵⁵ See Mountjoy 1998 and Niemeier 2005b. Cf. also the references in note 3 above.

⁵⁶ See the summary in Heinhold-Krahmer 2007 (and in particular p. 203).

that both royal houses were able to speak each others' languages⁵⁷. Phenomena of intense language contact, however, – eg. an adstratum/substratum scenario as in § 2 – presuppose an active interpenetration of linguistic communities as well as a certain degree of bilingualism on all social levels of society.

The conclusions can be summarized in short: Mycenaean-Anatolian language contacts can be assumed with certainty for the Late Bronze Age. Their range and their intensity, however, are not sufficient to have left substantial traces in Mycenaean or in the Anatolian languages.

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⁵⁷ For the hypothesis that Hittite scribes were engaged at the Mycenaean court, see Bryce 1999. However, there is no actual evidence in support of this hypothesis. Correspondence delivered by messengers makes more sense. That way messages might have been transmitted orally (see Melchert, in Print).

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