

Hom. γέφυρα, and Arm. *kamurj* ‘bridge’

By ROBERT S. P. BEEKES, Leiden

Hom. γέφυρα does not mean ‘bridge’; its meaning in the two contexts is unknown. It is argued that the word means ‘beam, (construction of beams)’, metaphorically ‘line of battle, phalanx’. It is a substratum word, which may be cognate with Arm. *kamurj*, and perhaps with Hattic *hamuruwa*.

1. The possible connection of Gr. γέφυρα and Arm. *kamurj* is much discussed. One objection has always been that in Homer the word does not mean ‘bridge’. It is usually translated with ‘dam’, but this meaning gives difficulties in both contexts where the word is found. I think that the solution is found in a suggestion by Furnée (1972, 223), viz. that Hattic *hamuru(wa)* ‘beam’ might be connected. (As he gives no source, I assume that the idea is his.) One may not immediately accept this suggestion, but when one looks again at the Homeric contexts, it becomes clear that ‘beam’ is the meaning of the word in Homer.

2. Before discussing the Homeric usage of the noun, I recall the use of the verb γεφυρόω. In Φ 245 Achilles grabs a tree, which comes down and bridges the river. This agrees very well with the notion that a bridge can be formed by a beam, i.e. a tree. The meaning ‘to bridge’ is the normal one in classical Greek. In O 357 Apollo, assisting the Trojans in their attack on the Greek camp, tramples the banks of the ditch and: γεφύρωσεν δὲ κέλευθον ‘bridged a path’, which is something like ‘made a bridge as a path’ (over the ditch of the Greek camp) for the Trojans. Here we have the (later) notion of a ‘bridge’, which is this time made by making a kind of dam. (It does not imply that γέφυρα means ‘dam’; we shall see that in Homer the word never means ‘dam’.) So the two passages do not teach us much.

3. The noun γέφυρα (long υ, short α) occurs in two contexts, one being E 88f, the other a formula.

In E 88ff we read : (ποταμῷ)

χειμάρρῳ, ὅς τ' ὤκα ῥέων ἐκέδασσε γεφύρας,
τὸν δ' οὗτ' ἄρ τε γέφυραι ἐρ(γ)μέναι ἰσχανόωσιν,
οὗτ' ἄρα ἔρκεα ἴσχει ἁλώων ἐριθηλέων.

It is clear that a kind of embankments is meant, but the question is whether these can be earthen dams, as is generally assumed. Γέφυραι is followed by a participle which has a *varia lectio*. Leaf ad loc. chooses ἐργμέναι and translates 'fenced close', but I do not see what this means. The embankments are themselves a kind of fence (as is confirmed by ἔρκεα in 90), so how can you fence a fence? ἐέργω means 'shut in' or 'out' and this gives no acceptable meaning. (If we assume the meaning 'beam' we get no proper meaning either.) So we have to consider the form ἐρπμέναι. The verb means 'fasten together'. Leaf translates: (dams) 'joined together in long lines' or 'bound'. I agree with his comment "Neither of these is very satisfactory; εἶρω always means 'to connect together by a rope or string'". Nevertheless this interpretation is generally accepted. Ameis-Hentze-Cauer say: 'gereiht, d.i. ununterbrochen sich an den ufern hinziehend'. This is a highly forced interpretation. Lamer (1932, 1069) is correct when he says: "Aber auch 'gereimte Dämme' sind es nicht" (i.e. sind nicht denkbar). (Ruijgh points out to me that Homer has no (passive) perfect from ἐέργω, but that he uses ἐρκ/γ-, as in ἔρχαται, (ἐ)έρχατο. Note further that ἐέργω is the *lectio facillior*, as it is much more frequent than εἶρω in Homer.) However, when we use the meaning 'beams', the expression is perfectly clear: 'beams connected together' are meant, which form (parts of) an embankment. (Note that a bridge consisted also of a number of beams, fitted together or not.) (One might prefer 'plank, board' for 'beam'; often the same word has both meanings, cf. OFr.

balka ‘Laufplanke’, OE *bolca* id.; after all, the distinction between beam and plank is a gradual one.)

There is further evidence for this meaning. In 88 the verb is ἐκέδασσε, ‘scattered’. This verb seems inadequate in the case of an earthen dam. It is understandable that Naber and Nauck conjectured ἐκέασσε ‘split’ (see Leaf), since an (earthen) wall is ‘broken’ by a torrent; but it is not what the text says. With the notion ‘beam’, the use of ἐκέδασσε is perfectly natural: the wooden structures are torn to pieces (of wood) and scattered.

4. The other context in Homer is the formula ἀνὰ πολέμοιο γεφύρας (Θ 378, Λ 160, Υ 427; ἐπὶ Θ 553; no prep. and πολ. Δ 371). The meaning is roughly ‘the lines-of-battle’ or the space between them. The latter idea is not necessary; it seems to have arisen because it had to mean something different from ‘phalanx’, and because of speculations how ‘dam’ could come to mean ‘line-of-battle’. There have been many attempts to explain the meaning from ‘bridge’ or ‘dam’. The meaning is at once clear when one assumes ‘beam’: it is exactly the same metaphor as in the case of φάλαγξ, which also means in origin ‘piece of wood, log’. So the meaning ‘beam’ solves all difficulties in Homer.

Singor, 1991, 27, rejects the traditional explanation of φάλαγξ as ‘line of battle’ from a metaphor: the advancing line of warriors was compared with a rolling (straight) trunk of a tree, which he finds “hardly convincing”. I find this explanation quite satisfactory; in fact, to what else would you compare it? He further thinks that in the traditional explanation the fact that φάλαγξ (with one exception) always occurs in the plural is not explained. However, there is no problem: the poet wanted to say ‘lines of battle’ and used the plural; there is nothing remarkable. Singor suggests that in a few cases the plural φάλαγγες means ‘line’, in the singular, but this interpretation is not necessary: the plural is in all instances quite natural (note that γεφύρας too only occurs in the plural). His own suggestion is that φάλαγξ meant ‘spear’ (comparing δόρυ ‘wood, spear’) and that ‘(row of) spears’ was the origin of the notion ‘line of battle’. But there

is no indication whatever that the word ever meant 'spear', and this assumption is quite superfluous. (The ancient explanation saying that people ξύλοις καὶ ῥοπάλοις καὶ κορύναις ἐμάχοντο, RE XIX 1938 s.v. Phalanx, is no more than scholarly speculation. Note that no spears are mentioned.) Now we have established the older meaning of γέφυρα, it confirms that it was 'piece of wood, trunk, beam' that became 'line of battle'. - It may further be pointed out that the latter word is the older word used metaphorically for 'line of battle'. γέφυρα occurs only a few times in one formula. I disagree with Singor who stresses (1991, 23, 27, 33) that φάλαγξ is formulaic. It is rather remarkable that it is not. That the word is used (almost) always at the end of a line does not make it a formula: every word-type has its preferred position in the hexameter (cf. Beekes 1972). Of its 34 occurrences we find only: κλονέοντο/α φάλαγγες/ας 4x, κίνυντο φάλαγγες 3x (but in Δ 281, 332, 427, which is rather a repetition in short distance than a formula), ἐκαρτύναντο φάλαγγας 3x, ὤτρυνε φάλαγγας 2x, ἴσταντο φάλαγγες 2x. This is a quite low degree of formulaicity. The conclusion is that the word is recent in the epic language, and replaces γέφυρα. (This word could no longer be used as metaphor for 'line of battle' as it came to mean 'bridge'.)¹

¹ Singor also thinks that φάλαγξ is Indo-European. One reason will be that the word seems to have cognates in other Indo-European languages. However, this does not prove that the word is of Indo-European origin (see the conclusion of this article!); cf. Beekes 2000. Frisk and Chantraine also stick to an Indo-European origin. To my astonishment neither Kluge-Seebold nor Lloyd-Springer consider foreign origin. It is true that the situation is complicated, but everything points in my view to non-Indo-European origin. For Greek one goes on repeating that the nasal may be secondary, for which there is no ground; certainly the assumption that the nasal is an expressive element is completely dated. The suffix -αγξ is clearly non-Indo-European: all words are technical terms (Chantraine 1933, 399) which have no etymology, and the form of the suffix can hardly be Indo-European. The same is true for -ιγξ, -υγξ. Of course, it is possible that in an incidental case a suffix of non-Indo-European origin was added to an Indo-European root or stem, but that is the exception. If φάλαγξ is cognate, the comparison of the

5. The development of 'beam' to 'bridge' is unproblematic. Cf. the passage Φ 245 discussed above. I may quote Buck 1949, 721 (10.74): "Words for 'bridge' are connected with words for 'beam, board-flooring', reflecting the structure, ..." He gives e.g. SCr. *brŭ* 'beam, footbridge'. Schrader-Nehring s.v. *Brücke* mention a Semitic word for 'bridge', e.g. Assy. *gišru*, beside which occurs *gušūru* 'beam'. (It is unfortunate that the EIEC does not have a lemma 'bridge'.) It may be remembered that one beam or plank already forms a bridge. And further that words for beam, plank often at the same time indicate something made from beams or planks; cf. OE *baelc* 'covering, tegmen'; OIc. *bakr* 'Scheidewand'; in Greek cf. τὰ ἐκ τῶν ξύλων οἰκοδομήματα φάλαγγες καλοῦμεν (RE XIX 1938 s.v. *Phalanx*), etc.

6. We return now to the etymology.

We must first look at the Greek variants (cf. Hooker 1979, 390). Beside γέφυρα we have Cretan δέφυρα. Hesychius gives δίφυρα as Laconian (οὐ another notation for υ). He further gives βουφάρας (acc. pl.), which must probably be changed to *βουφορας because of the alphabetic order, and for which Schulze proposed *βοφουρας. It is clear that, as Hooker emphasizes, the result is not very reliable. I agree with Ruijgh (p.c.) that *βοφουρα could have ο from ε through assimilation in the labial surrounding (β, φ, ου). Lastly, Athenaeus (621f-622a) quotes a passage from Strattis (PCG fr. 49,5 Kassel-

two forms shows that they cannot be Indo-European. (φάλαγξ itself can hardly be Indo-European, **ǵ* giving λα.) But the meaning is not well known and it is a hapax (see Frisk; one should compare its meaning with that of Lith. *balžienas*). The Germanic words show an ablaut that looks Indo-European, but it is now realized that loan words can be subjected to inherited Indo-European processes. The word has every appearance of a European loanword: (apparent) **bh-*, *a*-vocalism, the meaning (wooden poles, beams, sticks etc. are very often loanwords), the distribution (Germanic, probably Balto-Slavic, perhaps Latin). To connect everything with a root for 'to swell' is an old-fashioned way of etymologizing which has been much ridiculed.

Austin) where the Thebans are called great inventors as regards the lexicon, and βλέφουραν τὴν γέφυραν is given as an example. The form is generally corrected to *βέφυραν, but Hooker is right in warning: "in such a context, where it is precisely the strangeness of the Theban forms that arouses interest, the change [= correction] is perhaps suspect." I wonder whether the λ perhaps resulted from a gloss γ, after which Γ was slightly turned and read as Λ came into the text.

The Greek alternations are difficult. An (Indo-European) labiovelar does not help, as exactly the best known form, with γ-, cannot then be explained. One compares βλήχων/γλάχων, a loan-word, and βλέφαρον/γλέφαρον (where one might think that the interchange is due to the following λ). The interchange is found in ὀβελός/ ὀδελός, a word that has no etymology. For other comparable changes see Furnée 368ff. I add ἄδαπτῇ - ἄδαμνεῖν - ἀγαπ-άω/-άζω 'to love' (Furnée 224; I am, with Frisk and Chantraine, very sceptic about Ruijgh's connection with ἀγα-, Scr. Min 2, 395), and γῆ beside Δημήτηρ (cf. Ruijgh 1999; Ruijgh thinks that δ/γ might continue a substratum g' which I find quite attractive). All the words cited have no good Indo-European etymology, so they are probably loans from the Greek substratum. It seems probable that the different Greek forms point to a loan-word. It is possible, however, that the word had a labio-velar from a non-Indo-European language (see the next section). These labio-velars partly behaved like the Indo-European labio-velars (as here the β and δ), but in some cases the labial element may have been ignored, giving in this case γ (cf. ξίφος, Myc. *qisip-*, which would have given ψ- if it were Indo-European).

7. It is often stated that the word is probably Indo-European because it had a labiovelar. This is wrong for two reasons. In the first place the γ- cannot be explained from an Indo-European labiovelar. In the second place the substratum language had also labiovelars, e.g. Myc. *qasireu* = βασιλεύς; cf. further Beekes 1995/6, 12f. See also the preceding section.

Frisk adds as a further argument that the suffix $-\bar{\upsilon}\rho\alpha$ is also found in ἄγκυρα which is certainly Indo-European. Exactly for this word I doubt that (anchors were originally just stones), but a general objection is that ὄλυρα, λέπυρον, πίτυρον, λάφυρον are technical terms without etymology which rather seem to be loan-words (Chantraine 1933, 234). (Also, a non-Indo-European word in $-ur$ can have adopted the Greek suffix $-ya$.) Moreover, the Mycenaean syllabary has signs for rja , rjo , which probably means that the non-Indo-European language for which the script was designed, had a palatalized r . A good example for rjo (but in an Indo-European word) is *turjo*, Gr. τῦρός 'cheese' (cf. Av. *tūiri-* < **turi-*). This proves that substratum words can have had $-(u)r^y-$.

Moreover no convincing Indo-European etymology or reconstruction has been found. We can now add that words for 'beam, pole' etc. are often loan-words. Lastly we can recall that no Indo-European word for 'bridge' is known (Lat. *pons*, with its Indo-European ancestry, did not mean 'bridge' originally); it is quite possible that they had no bridges (cf. e.g. Schrader-Nehring s.v. *Brücke*). Indo-Europeanists have often been reluctant to admit the presence of loans from non-Indo-European languages. All in all there is every reason to suppose a non-Indo-European word.

8. It has been proposed that the word is a loan from Semitic. One theory is that it was taken over from the Gephyraioi, who were supposed to be Semites. But Herodotus is the only one who suggests that they were Semites - which is just his personal idea, which is quite unreliable. The suggestion has been generally rejected.

Hooker (1979) suggested that it is related to the Semitic root *gb* 'high, raise(d)'. The words mostly means 'hill', though Syriac seems to have words meaning 'beam, embankment' (I find it difficult to understand that one word/root can mean both 'hill' and 'beam'). On the whole the suggestion is not convincing. Few scholars will subscribe to Hooker's view that the word, which can hardly have reached Greece through trade,

comes from a poetical tradition. In general I think that a word for 'beam' can be taken from a substratum language, but hardly from a language far away, unless it is a specific kind of wood, for which there is no indication.

9. We shall now reconsider the possible connexion with Arm. *kamurj*. We know now that the Greek word originally meant 'beam', so the semantics are less of a problem. Clackson (1994, 227 n. 153) points to an expression *p' ayt kamrji* 'a (piece of) wood of a bridge', which translates ξύλον διαβάθρας. He rightly concludes that *kamurj* is (or can be) a wooden construction. Thus we can say that the semantic problem has vanished. We can now even say that the semantic agreement is striking.

There are severe formal difficulties if one assumes that the words are Indo-European. The *a* against Gr. *ε* has been explained by the rule that an *e* before an *u* in the next syllable becomes *a*. However, this rule is incorrect (cf. Arm. *heru* 'last year' - Gr. πέρυσι). If we assume an *o* for Armenian, this may have become *a* in unstressed position. But I wonder whether this rule worked when an *o* was followed by a rounded vowel (*o*, *u*).

The biggest problem is Arm. *m* - Gr. *φ*, which do not agree if the word is Indo-European. However, they are both labials, the one the nasal, the other a stop. We have seen that there are good reasons for the assumption that the word is a foreign loan. And then the variation fits into a well-known pattern. Kuiper (1956, 213) already pointed to the phenomenon of 'nasalization' in Greek substratum-words, where a stop was replaced by the corresponding nasal (cf. βάρβιτος - βάρμιτος, βύσταξ - μύσταξ etc.; see also Furnée 222-227). So this variation is well-known and confirms the non-Indo-European origin of the word.

But Arm. *-mu-* also presents a problem, as an *m* before an *-u-* disappeared in Armenian. This again may point to a loan-word. (One might think of original **-mp-*, which gave Arm. *m*. In substratum words we also find prenasalization, here *bh* : *mp*; the interchange *bh/p* being also found in substratum words.)

It must also be remembered that Armenian *k*, according to the Indo-European sound laws, continues a **g*. The *ǰ* probably continues a *j*, after *r*.

We can conclude that the connection with Armenian is quite probable.

10. Lastly there is Hattic *hamuru(wa)*. Furnée probably found it in Kammenhuber 1969, 455. The Hittite version renders it by ^{GIS}UR. Kammenhuber translates 'Dachbalken'. The agreement in meaning, 'beam', is quite remarkable, as is that in form. If we accept that the Hattic word is related, it does not necessarily mean that Hattic is the language of origin. It can be from another non-Indo-European Anatolian language. It is generally known that many Greek place-names have a parallel in Asia Minor, so many that it is evident that there was an Anatolian language which was cognate with the (a) Greek substratum. The word may have reached Greek through Luwian, which was spoken in western Asia Minor. This may explain the *e*, as *a* became *e* in this language (cf. for the Greek side *Lesbos* - *Lazpa*, *Ephesos* - *Abasa*).

Add. 1. See now E.P. Hamp, The Celtic road to γέφυρα, in *Scribthair a ainm n-ogaim*, *Scritti in Memoria di Enrico Campanile*, Pavia 1997, I 463-466. He starts, however, from the meaning 'dam, dyke', which is wrong.

Add. 2. H. Martirosjan found a nice confirmation in Georgian *kiporči*, which is probably a loan from Armenian (see Arčāryan, H.A.B. 2, 503). It points to a labial stop and it means 'beam, log with which to make a bridge'.

Bibliography

- Beekes R.S.P. (1972): On the structure of the Greek hexameter. *Glotta* 50, 1-10.
- (1995/6): *Aithiopes*. *Glotta* 73, 12-34
 - (2000): European substratum words in Greek. In: 125 Jahre Indogermanistik in Graz, edd. M. Ofitsch - Chr. Zinko, Graz.

- Buck, C.D. (1949): A dictionary of selected synonyms in the principal Indo-European languages. Chicago/London.
- Chantraine, P. (1933): La formation des noms en grec ancien. Paris.
- Clackson, J. (1994): The linguistic relationship between Armenian and Greek. Oxford /Cambridge USA.
- EIEC Encyclopedia of Indo-European Culture edd. J.P.Mallory - D.Q. Adams 1997 London/Chicago.
- Furmée, E.J. (1972): Die wichtigsten konsonantischen Erscheinungen des Vorgriechischen. The Hague/Paris.
- Hooker, T. (1979): γέφυρα: A Semitic Loan-word? In: FS Szemerényi, ed. A. Brogyanyi. Amsterdam (Benjamins).
- Kammenhuber, A. (1969): Hattisch, in: Altkleinasiatischen Sprachen, Hb. Or. II, 1-2, 2. Leiden/Köln.
- Kluge-Seebold (1989): Etymologisches Wörterbuch der deutschen Sprache. Berlin/ New York.
- Kuiper, F.B.J. (1956): The etymology of ἄνθρωπος. Gedenkschrift Kretschmer 1, 211-226.
- Lamer, H. (1932): Grundbedeutung und Herkunft des Wortes γέφυρα. Philologische Wochenschrift 52, 1067- 1074.
- Lloyd, A.L. - Springer, O. (1988): Etymologisches Wörterbuch des Althochdeutschen. Göttingen/Zürich.
- Ruijgh, C.J. (1999): La religion dans les textes des tablettes mycéniennes. Entretiens sur l'antiquité gréco-romaine. Faculté ouverte, Section de Langues et Littératures classiques, Université de Liège.
- RE 1893 - Paulys Realencyclopädie der classischen Altertumswissenschaft, ed. G. Wissowa a.o. Stuttgart.
- Schrader, O. - Nehring A. (1923): Reallexikon der indogermanischen Altertumskunde.
- Singor, H.W. (1991): Nine against Troy. On epic φάλαγγες, πρόμαχοι, and an old structure in the story of the Iliad. Mnemosyne 44, 17 - 62.