

what they *did*," "said what they *said*"), the relative clause regularly follows. Word order is therefore against Reitzenstein's *quae fecerint se fecisse*.⁶ Renehan compares Herodotus 2. 49. 1 ἀπὸ τούτου μαθόντες ποιεῦσι τὰ ποιεῦσι Ἑλλήνες, 3. 16. 1 βουλόμενος ποιῆσαι τὰ δὴ καὶ ἐποίησε, 3. 156. 2, and Valerius Maximus 4. 8. 5 "homines percussi primo, velut non audisse se quae audierant credentes, obticuerunt." Compare also Cicero *Pro Milone* 95 "negat enim se, negat ingrativ civibus fecisse quae fecerit," where, in the words of A. C. Clark, "se om. P. qui deficit in verbo insequenti," hence "se post fecisse inser. Baiter." Had Baiter inserted so as to produce <se> fecisse, the parallel would be exact to the detail, with *se* in second (enclitic) position: *ingrativ civibus* ~ *vi conductorum adactos*, *se fecisse* ~ *se fecisse*, *quae fecerit* ~ *quae fecerint*. The position of *se* is important. Reitzenstein's sorting of the paradosis, "vi conductorum adactos. quae fecerint se fecisse," never belonged in the text; and although it was perfectly natural for C. L. Howard, in his review of Thomas' edition, to improve this to "vi conductorum adactos, quae fecerint se fecisse,"⁷ in the doing he has unfortunately relegated *se* to an untenable position. Renehan's conjecture rights matters, offers indeed, for the first time, Latin which our epitomator *can* have written.

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6. Rather than extract *se fecisse* from *referre*, Renehan simply adds the phrase (*se FEC-* dropped out before *quE FEC-*). *Referre* he judges to be a separate problem—an additamentum, perhaps it was, created with an eye to the following *id mercennarii suspicati*.

7. *CP* 58 (1963): 131. Howard thought he was correcting a misprint: "the only misprint I observed is the full stop, which should obviously be a comma, after *adactos*." There is no misprint here. Thomas was following Wagner, and not only does Wagner's text have the stop, but a note in his commentary bidding us supply *fuisse* with *adactos* makes his intention painfully manifest.

THE ETYMOLOGY OF UMBRIAN AND PAELIGNIAN *BIO*

There are two good indications that the Umbrian and Paelignian word *bio* cannot refer to "running water, spring water," as is customarily believed.¹ First, in all inscriptions in which this word occurs the predicate contains either a verb

1. The inscriptions which contain *bio* can be found in any handbook on the Oscan-Umbrian languages (see, e.g., V. Pisani, *Manuale storico della lingua latina*, vol. 4 [Turin, 1964], pp. 117 and 220). Umbrian attests one nominative case form, *bio* (Pisani, *Manuale*, p. 220, no. 62 A), and one accusative form, *bia* (Pisani, *Manuale*, p. 220, no. 62 B) (for a different interpretation of this form, see M. Lejeune, "Noms osco-ombriens des eaux, des sources, et des fontaines," in *Mélanges J. Heurgon* [Rome, 1976], p. 563). In Paelignian two accusatives are attested, *biam* (Pisani, *Manuale*, p. 117, no. 49 A) and *bea* (Pisani, *Manuale*, p. 117, no. 49 B) (for lowering of *ī to *e* in Paelignian, compare *pes*, "pious" [Pisani, *Manuale*, p. 117, no. 48] < *pīos). I have used the nominative singular form *bio*, which occurs in the Umbrian inscription from Fossato di Vico, as a citation form. At this point it is convenient to note that this word may be attested in South Picene, i.e., *bie*. For discussion of this word, see A. Morandi, *Le iscrizioni medio-adriatiche* (Florence, 1974), p. 97. According to M. Durante, "I dialetti medio-italici," in *Popoli e civiltà dell'Italia*, vol. 6, ed. M. Cristofani (Rome, 1978), p. 818, n. 13, *bio* forms an isogloss among the Oscan-Umbrian languages of eastern Italy. For the translation of *bio* as "running water, spring water," see J. Grienberger, "Italica 5. Das Kupferblatt von Fossato di Vico," *KZ* 56 (1928): 24; G. Bottigliani, *Manuale dei dialetti italiani* (Bologna, 1954), p. 356; and Pisani, *Manuale*, p. 117.

of construction, some form of *o(p)sa-* ("construct") or *faci-* ("build"), or a verb of contracting for construction, *loca-* ("contract for [the building of]").² Thus, *bio* cannot refer to water but must refer to something which can be constructed.³ Second, the archaeological context in which the Umbrian inscription from Fossato di Vico was found provides substantial proof that *bio* refers to a fountain basin or receptacle.⁴ Clearly, both internal and external facts point to the meaning of "water basin" or "receptacle" for *bio*.

Even though the referent of this word has finally become clear, most authorities have not changed their opinion of its etymology, but still accept the etymology first proposed by C. Pauli.⁵ Pauli argued that *bio* was in origin an adjective formation derived from the zero grade of the Indo-European (IE) root **g^weyH₀-* ("live") with the addition of a suffix **-wo/ā-*, that is, *bio* < Italic **g^wī-wā* < IE **g^wiH₀-wā*.⁶ Formally, then, *bio* is comparable to Latin *vīvus*, Oscan *bivus* (nom. pl.), Sanskrit *jīvā-* ("living"), and so on, which are derived from the zero grade of the same root **g^weyH₀-* with the addition of the same suffix. The substantive use of *bio*, the fact that it is feminine in gender, and the fact that it means "running water" are, according to this account, explained by claiming that *bio* must once have modified a feminine noun like (Oscan) **aapo* ("water").⁷ The head noun **aapo* was then deleted, presumably because the syntagm *bio *aapo* was common, leaving *bio* as the sole representative of the noun phrase, that is, as a substantive. There are problems, however, not only with this etymology but also with the fact that *bio* is feminine in gender.

First, there is considerable discrepancy between the meaning of *bio* indicated by the archaeological context (see above) and that suggested by the etymology. The shift from "running water" to "water receptacle" is not easily explained. A further problem is posed by the fact that the gender of the word *bio* is feminine. In Umbrian the word for "water" is derived from the IE root **wed-*, attested in

2. In Umbrian the verb *o(p)s-* < **opes-* is attested with the secondary *-ps-* cluster unassimilated, *opset* (Pisani, *Manuale*, p. 220, no. 62 B), and assimilated, *oseto* (Pisani, *Manuale*, p. 220, no. 62 A). The Paelignian verb *locatin* (see Pisani, *Manuale*, p. 117, no. 49 A) is, according to E. Vetter, *Handbuch der italienischen Dialekte*, vol. 1 (Heidelberg, 1953), p. 145, a borrowing from Latin. Similarly, the verb *fec(it)* in the other Paelignian inscription (see Pisani, *Manuale*, p. 117, no. 49 B) is probably also a latinism, since the Oscan forms of the verb *facio* indicate that the perfect of this verb was formed with reduplication in the Oscan dialects, e.g., *fefacid* 3d sg. subjunctive.

3. This fact is noted by Durante, "I dialetti," p. 818, n. 13; Lejeune, *Mélanges*, p. 561; and E. Vetter, *Handbuch*, pp. 145 and 167. Hence the translation of *bio* as "*fontāna*."

4. The site of Fossato di Vico was first examined in 1868 by Marco Micheletti. Grienberger, "Italica 5," p. 24, discusses Micheletti's report at some length; for a reexamination, see E. Stefani, "Fossato di Vico (Umbria). Antiche costruzioni scoperte in contrada Aja della Croce," *NSA* 1 (1940): 171–79. Lejeune, *Mélanges*, p. 562, discusses the implications of Stefani's report for the interpretation of the Umbrian and Paelignian inscriptions.

5. *Altitalische Studien*, vol. 5 (Hannover, 1887), pp. 42–43.

6. For the quality of the laryngeal in the root "live" **g^weyH₀-*, see E. Hamp, "**g^weiH₀-* 'live'," in *Studies in Greek, Italic, and Indo-European Linguistics*, ed. A. Morpurgo Davies and W. Meid (Innsbruck, 1976), p. 87.

7. For the collocation *bio *aapo*, compare Latin *vīvī fontēs*, *vīva aqua*, and *vīvum flūmen*. The Oscan word for "water" is attested only in accusative singular and plural forms, e.g., *aapam* (see A. La Regina, "Le iscrizioni oscche di Pietrabbondante," *RhM* 109 [1966]: 264–66) and *aapas* (Pisani, *Manuale*, p. 106, no. 42). It should be noted that Oscan *aapam/aapas* is not cognate with Latin *aqua*. Comparison with Latin *aqua* leaves the long vowel in the Oscan word without an explanation. A much better connection is that suggested by Pisani, *Manuale*, pp. 101–2, with Sanskrit *āp-ah* (nom. pl.).

Latin *unda* ("wave"): *utur* (*Tab. Ig.* IIb 15).⁸ A feminine form for "water," for example, a form like Oscan **aapo*, is not attested in Umbrian. Since the word for "water" is neuter in Umbrian, one might wonder how *bio* became feminine.⁹ Thus, the derivation from an Italic adjectival formation **g^wīwā* does not have much to commend it from the point of view of semantics.

Phonologically, the connection with a prehistoric form **g^wīwā* has even less to commend it. There is no evidence to support the claim that **w* was lost intervocalically in Umbrian or Paelignian.¹⁰ In fact, in Umbrian there is quite good evidence that intervocalic **w* is preserved, for example, *avif* ("birds") (*Tab. Ig.* Ib 8), *uvern* ("sheep") (*Tab. Ig.* III 8). In Paelignian there is no evidence bearing on this question one way or the other; however, in Oscan, a language which is closely related to Paelignian, intervocalic **w* remains. In fact, **w* remains in the very adjectival formation at issue, namely, *bivus* < **g^wīwōs*. Thus, on the basis of evidence from Oscan one can be reasonably sure that intervocalic **w* remained also in Paelignian. The standard etymology, then, appears also to be without phonological support.

While it is necessary, for the reasons outlined above, to abandon the connection with Latin *vīvus*, etc., a plausible etymology does exist. Pokorny suggested that *bio* be connected with Old Norse *kví* (plural *kviar*) ("enclosure where sheep are assembled") and be taken to designate an "enclosed precinct."¹¹ This connection is quite attractive phonologically. *Kví* is generally derived from zero grade of a root **g^weyH_x-* ("enclose," "contain") with the addition of a **-yā* suffix, that is, < Germanic **k^wī-yō* < IE **g^wiH_x-yā*. The Indo-European proto-form which is required to yield Old Norse *kví* will yield Umbrian and Paelignian *bio* perfectly. Indo-European labiovelar consonants are treated as labials in the Oscan-Umbrian languages, and **ā* in word-final position appears generally as *o*. The etymology offered by Pokorny appears to suffer in terms of semantics, however, since the archaeological context indicates clearly that *bio* means "water basin." Still, I think that a plausible case can be made for that etymology, provided a different view is taken of the semantic development of the word.

Since the basic meaning of the Indo-European root seems to be "enclose," "contain," one could reasonably argue that the Indo-European noun **g^wiH_xyā*

8. For the IE root **wed-*, see J. Pokorny, *Indogermanisches etymologisches Wörterbuch* (Bern, 1959), pp. 78–79. The Umbrian word *utur* can be derived from the IE lexical entry **wódr*. The zero grade of the root in *utur* reflects leveling to the weak cases and to the locative. An alternative view of the morphology of this word can be found in J. Schindler, "Apophonie des themes I.E. en -r/n," *BSL* 70 (1975): 5.

9. Since Paelignian is rather closely related to Oscan it is possible that the word **aapo* existed in Paelignian. This need not be the case, however. Even if one grants the concept of a "period of common development," dialect differences will exist; and to prove this point there are isoglosses which cut across the customary subgrouping divisions established for Oscan-Umbrian. For example, most authorities consider Marrucinian a member of the Oscan branch of Oscan-Umbrian. Nevertheless, Marrucinian shares with Umbrian, but not with Oscan, the treatment of final **-ns* as *-f*, e.g., *iafc* < **eans-ke*. Thus **aapo* need not have existed in Paelignian. Still, even if **aapo* did exist in Paelignian it will not account for the existence of the feminine *bio* in Umbrian. And the claim of Lejeune, *Mélanges*, p. 570, that the existence of Oscan **aapo* proves its existence in Umbrian is subject to the same criticism.

10. This fact is noted by R. von Planta, *Grammatik der oskisch-umbrischen Sprache*, vol. I (Leipzig, 1897), p. 414, n. 1, and P. Poccetti, *Nuovi documenti italici* (Pisa, 1979), p. 154.

11. The connection with Old Norse *kví* was first suggested by S. Bugge, *Altitalische Studien* (Christiania, 1878), p. 45. This etymology was accepted by F. Muller, *Altitalische Wörterbuch* (Göttingen, 1926), p. 210.

originally referred to any object which enclosed or contained, literally an "enclosure" or "container" of some sort. If this assumption is granted, then one need only claim that the sphere of reference was gradually narrowed so as to refer only to objects for "containing" water, that is, water basins or receptacles. Such a narrowing of the sphere of reference of a word is a perfectly ordinary variety of semantic change. And, given the basic meaning of the Indo-European root, the narrowing suggested here appears quite plausible.

In summary, then, the etymology which connects *bio* with Old Norse *kví* has a distinct advantage over the alleged connection with Latin *vīvus*, etc. Such a connection avoids the semantic and phonological problems encountered by the customary etymology and, at the same time, plausibly accounts for both the semantic and phonological developments of the Umbrian and Paelignian word. The inscriptions in which *bio* appears can now be given their proper interpretation, as building inscriptions referring to the construction of water basins.

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