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The Germanic Diphthongs in the Continental Runic Inscriptions

Martin Findell

Abstract

Runic inscriptions on the Continent, excluding Frisia, are commonly treated as representing the precursors of Old High German and Old Saxon, which are attested in manuscripts of the eighth–eleventh centuries. If these literary languages are the result of regular sound change from a relatively homogeneous Northwest Germanic, then close study of the runic inscriptions might enable us to see some of those sound changes in progress. This paper examines the runic evidence for specific sound changes affecting the Germanic diphthongs */ai au eu/, and argues that the dialects of the inscriptions do not fit easily into a linear progression from Northwest Germanic to literary Old High German and Old Saxon.

Keywords: diphthongs, history of German language, Old High German, Old Saxon, phonology, runes, runic inscriptions

The following paper is extracted from a larger phonological study of dialects recorded in Continental runic inscriptions (Findell 2012), based on a corpus of ninety older futhark inscriptions with find-sites on the Continent, or for which there is some evidence of a Continental origin. The term “Continental” as employed here, in accordance with standard practice in runological studies, excludes the approximately twenty Frisian runic inscriptions, which belong to the Anglo-Frisian tradition (see Findell 2012, 8f.).

It has been common practice to treat the dialects of the inscriptions as precursors to Old High German and Old Saxon as we encounter them in manuscripts of the eighth to eleventh centuries. Phonologically, the “Continental runic” dialects are presumed to occupy a position in the development from a relatively uniform Northwest Germanic to early Old

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High German and/or Old Saxon (see, e.g., Klein 2001, 579 f.). It follows that we can look to the inscriptions for evidence for the sound changes which distinguish the later dialects from Northwest Germanic. In this paper I focus on those phonological processes relating to the Germanic diphthongs */ai/ au eu/. The runic data show a variety of spellings which are difficult to reconcile with the conventional history of pre-Old High German/pre-Old Saxon sound change.

The Germanic diphthongs in Old High German and Old Saxon

The Germanic *a*-diphthongs, both */ai/ and */au/, are subject to monophthongisation, unconditionally in Old Saxon and conditioned by the consonantal environment in Old High German (Braune 2004, §§ 43–45; Gallée 1910, §§ 89–101; Holthausen 1921, §§ 97–100).

Monophthongisation of */ai/ occurs:

1. before /r w h/. Inherited /h/ (< Proto-Germanic */x/) triggers monophthongisation, but the consonant-shifted reflex of */k/ does not: compare, e.g., *ēht* ‘property’ (< Proto-Germanic **aixtiz*), *eih* ‘oak’ (< Proto-Germanic **aikz*).¹
2. in certain interjections (*sē*, *sē-nu* ‘behold!’ < Proto-Germanic **sai*; *wē* ‘woe, alas!’ < **wai*). This is not a general rule in final position (compare *zwei* ‘two’ (neut.) < **twai*; *screi* < **skrai*, 1sg.pret. to *scrīan* ‘cry, moan’).
3. irregularly in other environments, e.g., *wēnag* ‘miserable, poor, low’ (< Proto-Germanic **wainagaz*/**wainaxaz*). The motivation for monophthongisation in these cases is not clear, but it is evidently not purely phonological, since formally similar words retain a diphthong, e.g., *weinōn* ‘to cry, wail’.

The Old High German reflexes of */au/ are monophthongal before /h/ derived from Proto-Germanic */x/, and before all dental/alveolar consonants.

Durrell analyses the monophthongisations into two stages: first, the off-glide is lowered to produce “pre-monophthongal” variants [ae ao]. The first element is subsequently raised as part of a general process affecting the first

¹ Unless indicated otherwise, all Proto-Germanic reconstructions in this paper are based on Orel (2003).

elements of complex vowel-segments in the late eighth or early ninth century: [ae] > [ɛ:]; [ao] > [ɔ:] (Durrell 1977, 59–63; see also van Coetsem 1975, 11–17).

Penzl (1971, 127 f.), on the other hand, argues that the digraphic spellings ⟨ae ao⟩² are simply an orthographic device for distinguishing the relatively open products of monophthongisation [ɛ: ɔ:] from the more close /e:/ derived from Proto-Germanic */e:/ (*ē2) and /o:/ derived from Proto-Germanic */o:/ (which are diphthongised in later Old High German).

The Proto-Germanic diphthong */eu/ undergoes several allophonic developments in Old High German and Old Saxon conditioned by following vocalics (this model draws on the accounts of Braune 2004, § 47; Klein 2001, 583; Krause 1971, 74–76; Nielsen 2000, 105 and 229; Ringe 2006, 221):

1. an allophone *[iu] appears before a syllable containing a high front vocalic (* /i i: j/), as part of the general raising of Proto-Germanic */e/ in this context.
2. *[iu] is also found before a syllable containing a high back vowel (* /u u: /), but not consonantal */w/. It is unclear whether this process is directly connected with the preceding one, or is an independent development. It is certainly attested in Old High German and Old Saxon, and possibly also in early Proto-Norse,³ which suggests that it may be common Northwest Germanic.
3. an allophone *[eo] develops before /a/ throughout Northwest Germanic, and (at least in Old High German and Old Saxon) before /e/ and /o/.

Following the loss of inflectional */-a/, which triggers change 3, the variants can be considered full phonemes */iu eo/ (see Findell 2012, 15–18, for more detail).

This pattern is retained in Old Saxon and in Frankish dialects of Old High German. In the Upper German dialects, however, a secondary process interferes with the inherited distribution of variants: */eo/ appears only before /h/ derived from Proto-Germanic */x/ or a dental/alveolar consonant. Before labial or velar consonants (including /h/ derived from Proto-Germanic */k/ via the second consonant shift), the surface form is always /iu/.

The consonant-conditioned alternation may be explained as blocking of the regular *a*-umlaut (* /eu/ > *[eo]) by the labial and velar consonants

² The ⟨ao⟩ digraph is widespread in Bavarian texts of the eighth and early ninth centuries, but is not found in Frankish or Alamannic (Braune 2004, § 45 n. 2).

³ The sole witness to this is **liubu** (Opedal stone, KJ 76), the reading of which is disputed; Antonsen (1975, no. 21) reads **leubu**.

(Braune 2004, § 47). We could alternatively regard it as a secondary raising of inherited */eo/ triggered by the labials and velars. This appears to be the model which Penzl (1971, 139 f.) and Wright (1906, § 56) have in mind.

Runic evidence for the monophthongisation of */ai/

The following runic sequences can be regarded with some confidence as containing reflexes of Proto-Germanic */ai/:

1. Freilaubersheim fibula: **wraet** → *wraet* 3sg.pret. ‘wrote’ (Proto-Germanic **wrait*).
2. Neudingen-Baar stave: **urait** → *wraet* 3sg.pret. ‘wrote’ (Proto-Germanic **wrait*).
3. Pforzen buckle: **aigil** → *Aigil* (Proto-Germanic **aiganan* [reconstruction after Ringe 2006, 261] > Old Saxon *ēgan*, Old High German *eigan* ‘to have, own’).
4. Pforzen buckle: **aīlrun** → *Ailrūn*, with the prototheme either *Ail-* (Proto-Germanic **ailan* > Old English *āl* ‘fire’; Nedoma 2004a, 168 f., and 2004b, 345 f.; Wagner 1999, 93 f.); or else a derivative of *Agil-* (Proto-Germanic **agez*/**agan* > Old English *ege* ‘fear’, or Proto-Germanic **agjō* > Old English *ecg*, Old Saxon *eggia* ‘edge’; Düwel 1997, 283 f., and 1999, 45).⁴
5. Pforzen ring: **urait** → *wraet* 3sg.pret. ‘wrote’ (Proto-Germanic **wrait*).

Several other sequences contain possible, though less certain, witnesses:

6. Neudingen-Baar fibula: **klef** → *klēf* < **klaiƿ*, 3sg.pret. to Proto-Germanic **klībanan* (> Old Saxon (*bi*)-*klīban* ‘to take root’; Old High German *klīban* ‘to adhere, stick to, be fixed to’; Fingerlin and Düwel 2002, 110).
7. Schwangau fibula: **aebi** → *Aebi* (Proto-Germanic **aib-ijaz*; cf. **aibō* > Langobardic *aib* ‘district’; Looijenga 2003, 257).
8. Weingarten fibula I: **aerguþ** → *Aergu(n)þ*, prototheme *Aer-* (Proto-Germanic **aizō* > Old Saxon and Old High German *ēra* ‘honour’; Looijenga 2003, 262).⁵

⁴ While **aīlrun** is the most popular transliteration of the Pforzen inscription, the first two runes are unclear, and plausible alternatives **alrun/alurun** have been proposed (Marold 2004, 227; Pieper 1999, 27–35).

⁵ Looijenga’s transliteration is at odds with the more popular **alirguþ** (Arntz and Jänichen 1957, 127; Bammesberger 2002, 119; Krause 1966, 306; Nedoma 2004a, 176; Opitz 1987, 49). Nonetheless, in my view both are plausible.

9. Weingarten fibula I: **feh**a → *Fēha* (Proto-Germanic **faixaz* I⁶ > Old Saxon and Old High German *fēh* ‘coloured, decorated’, or Proto-Germanic **faixaz* II > Old High German (*gi*)-*fēh* ‘hostile’; Arntz and Jänichen 1957, 128; Krause 1966, 306; Opitz 1987, 200); or *fēha* ‘colourful thing, i.e., rune’ (substantivised adjective < Proto-Germanic **faixaz* I; Schwab 1998, 418 f. and 1999, 13 f.).

As noted above, it is a matter of debate whether Old High German ⟨ae⟩ represents an intermediate diphthong [ae], a monophthong [ɛ:], or simply a free orthographic variant of ⟨ai⟩. The same may apply to runic **ae**. Our only clear example (Freilaubersheim **wraet**) has a find-site geographically separate from those of the other *wrait rûna* texts, in the Middle Rhine region.⁷ The **ae** digraph occurs in a context where we would not expect monophthongisation in Old High German. On this extremely scanty evidence we might tentatively postulate a variation between local orthographic traditions and/or dialects. Our other two (possible) **ae** spellings (Schwangau and Weingarten) are both located deep in Upper German dialect territory, and so are not amenable to this explanation unless it can be shown that the inscriptions were created elsewhere, or that the carvers were speakers of dialects from a hypothetical **ae**-zone.

If Looijenga’s transliteration of Weingarten I is correct, then **aergup** has **ae** in a context appropriate for monophthongisation in Old High German (before /r/). Schwangau **aebi**, on the other hand, does not. As for the **ai** of Pforzen **aïlrûn** (if this reading is correct), it is clear that this spelling does not reflect a general regional variation, since **ai** is found on the same object. This form cannot be explained as a pre-monophthongal phonetic variant, as it does not appear in a suitable phonetic environment.

Neudingen **klef** appears to contain a fully-developed monophthong in a position where it would not be expected in Old High German (3sg.pret. *kleib*, versus Old Saxon *bi-klēf*). It might be that this inscription reflects a more northerly dialect: the representation of /b/ as **f** (representing a fricative allophone [β] ~ [v]) is more reminiscent of Old Saxon and Middle Frankish than Upper German (Braune 2004, § 134). The remainder of the text is difficult to read (**klefîlp** is generally favoured, with a variety of interpretations turning on a haplographic treatment of **f**; see Findell 2012, 188),

⁶ The homonym designations **faixaz* I and **faixaz* II are taken from Orel (2003).

⁷ The inscription has been classified as Rhine-Frankish (Arntz and Zeiss 1939, 213; Krause 1966, 283 f.), apparently on the assumption that the object and the inscription were produced locally to the find-site. This assumption must be treated with caution.

and gives us no clues which would enable us to identify the dialect with any confidence.

The presence of monophthongisation in Weingarten **feh**a is widely accepted, although Nedoma (2004a, 293–97) is sceptical, and suggests several alternatives with **e** representing an inherited monophthong (see also Düwel 1989, 44 f.). If we are dealing with a reflex of */ai/, the following /h/ provides a context suitable for monophthongisation. Given the range of suggested datings for the Weingarten fibula (estimates range throughout the sixth and seventh centuries), it is conceivable that **feh**a is a late sixth or early seventh-century form with an advanced monophthongal realisation; but we would need more substantial supporting evidence to give any weight to such a speculation.

The interpretation of **feh**a as a product of monophthongisation requires us to explain the apparent discrepancy between the monograph **e** and the **ae** digraph on the same object. We could posit a differential progress of the monophthongisation before /r/ as against /h/, which would be consistent with Braune's remark that diphthongal forms persist before /r/, but not before /h/ or /w/, in the earliest Old High German manuscripts (Braune 2004, § 43 n. 1).

With so few data, it is impossible to draw any firm conclusions. The only case where we can be entirely confident that we have a reflex of */ai/ represented as something other than **ai** is Freilaubersheim **wraet**, possibly explicable as evidence of a dialect in which unconditioned monophthongisation is underway. Weingarten **aergup** looks promising as a case of consonant-conditioned monophthongisation, but—as has been discussed—if we want to claim that the **ae** digraph represents a monophthong or some intermediate diphthong, we cannot simply ignore Schwangau **aebi**: our three **ae**-spellings all require different explanations. If the alternative reading of the Weingarten example as **alirgup** is correct, then we have only two witnesses which could as well be free variants as anything of real linguistic significance.

Runic evidence for the monophthongisation of */au/

The relevant sequences containing runic reflexes of Proto-Germanic */au/ are:

1. Igling-Unterigling fibula: **aunr?d** → *Aunrād*(?), prototheme *Aun-* (Proto-Germanic **aujan* > Proto-Norse *auja* 'luck', or the derived adjective **aunaz*/**aunuz* 'good, prosperous' > Old English (*ge*)-*ēan* 'pregnant'; Arntz and Zeiss 1939, 299; Krause 1966, 241 f.).

2. Lauchheim fibula: **aonofada** → *Aonofada*; or *Aono fa(ihi)da* ‘Aono made (the fibula? the inscription?)’ (Proto-Germanic **aujan* or **aunaz*/**aunuz*; see Nedoma 2004a, 194–96).
3. Nordendorf fibula A: **awa** → *Awa* (Proto-Germanic **aujan*).
4. Oettingen fibula: **aujabrg** → *Auijab(i)rg*, prototheme *Auija-* (Proto-Germanic **aujan*; Düwel 1991, 280; Findell 2012, 97, 443 f.; Nedoma 2004a, 137).
5. Pforzen ivory ring: **aodlip** → *Aodli(n)þ*, prototheme *Aud-* (Proto-Germanic **audaz*/**audan* > Old English *ēad* ‘prosperity, happiness’; Old Saxon *ōd* ‘happiness’; Nedoma 2004a, 191 f.).
6. Weimar buckle: **awimund** → *Awimund*, prototheme *Awi-* (Proto-Germanic **aujan*).⁸

Two further inscriptions contain possible—though doubtful—reflexes of **/au/*:

7. Lauchheim comb: **odag** → *ōdag* ‘rich, fortunate’ (Proto-Germanic **audagaz*/**audigaz*; Schwab 1999, 20).⁹
8. Mertingen fibula: **aun** → *aun* or *Aun-* (Proto-Germanic **aujan* or **aunaz*/**aunuz*; Babucke and Düwel 2001, 170).

Both of these involve speculative transliterations and interpretations; Düwel (pers. com.) has expressed caution about his interpretation of Mertingen. Schwab’s transliteration and interpretation of Lauchheim **odag** has not found wide acceptance (see note 9), and I do not consider it reliable.

These reservations aside, we have in this dataset two instances of a spelling **ao** (Lauchheim fibula; Pforzen ring) and (possibly) one of **o** (Lauchheim comb), all of which occur in contexts appropriate for Old High German monophthongisation (before alveolars, /n/ and /d/). On the other hand, we have **au** spellings before /n/ in Igling-Unterigling and Mertingen (if the latter is admissible).

The interpretation of the digraphs as reflexes of **/au/* is not controversial, yet the variation between **au** and **ao** has received little attention in the literature. Nedoma (2004a, 191 f.) regards Pforzen **aodlip** as either an idiosyncratic spelling or a dialectal/sociolectal variant, rather than an inter-

⁸ The two **aw** spellings (Nordendorf **awa**; Weimar **awimund**) are both believed to represent the name-element *A(u)w(i)-* derived from Proto-Germanic **aujan* via West Germanic gemination of **/w/*. Strictly speaking, the digraph **aw** is not simply an alternate spelling of */au/*, but a contraction of the phonemic sequence */auw/* (see further Findell 2012, 100 f.).

⁹ The sign which Schwab transliterates **o** is regarded by other commentators as a **g** (Düwel 1998, 16; Looijenga 2003, 265) or else a paratextual mark (Nedoma 2004a, 272).

mediate stage in the Old High German monophthongisation. He makes no comment on Lauchheim **ao**no. I see no obvious geographical pattern that might indicate dialectal variation, and Nedoma does not explicitly adduce any evidence for a social or economic difference between the two spellings (such as differences in the quality and type of grave goods). The available information about dating is too imprecise for us to account for the variation chronologically.

If there is no positive evidence for a regional, social or chronological distinction between the spellings, we should not rule out the possibilities that (i) **ao** (and Lauchheim **o**, if admissible) indicate that monophthongisation is underway, and **au** in the same contexts is an “archaic” or “conservative” spelling; or (ii) **au** and **ao** are free orthographic variants, and **o** is either a misreading or does not represent a reflex of */au/.

Runic evidence for the developments of Germanic */eu/

We can be reasonably confident that runic reflexes of Proto-Germanic */eu/ appear in the following:

1. Bad Krozingen fibula A: **leub** → *leub* ‘dear’.
2. Engers fibula: **leub** → *Leub*.
3. Niederstotzingen strap end: **?liub** → *liub* ‘dear’.
4. Nordendorf fibula A: **leubwini?** → *Leubwini* (or *leub Wini* ‘dear to Wini’)
5. Schretzheim capsule: **leuba** → *Leuba*.
6. Schretzheim fibula: **leubo** → *Leubo*.
7. Weimar fibula I: **liubi:** → *liubi* ‘love’.
8. Weimar fibula I: **leob** → *leob* ‘dear’.

Two further witnesses may be present, although they are both highly problematic:

9. Mertingen fibula: **ieok a...** → *jeoka* ‘fight’(?) (Proto-Germanic **jeukō* > Gothic *jiuka* ‘quarrel’; Babucke and Düwel 2001, 169 f.). See above for Düwel’s note of caution about this item.
10. Weimar bead: **þiup/wiuw** → *þiup* (Verner’s Law alternant of Proto-Germanic **þeudjaz* ‘good’ (?); Krause 1966, 290; Nedoma 2004a, 314).

The most striking feature of this dataset is the predominance of the lexical root **leub-* ‘dear, lovely’ (whether as the adjective **leubaz*, the derived abstract noun **liubin* > Old High German *liubi* ‘love’, or as a name-element). The only items which do not involve this root are Mertingen **ieok** and Wei-

mar **piuþ/wiuw**, both of which involve speculative and uncertain interpretations.

None of the witnesses provides us with clear evidence for the umlaut-driven split of **/eu/* into */iu eo/*. Weimar I **liubi** appears to contain a following high vowel, but the transliteration is questionable; indeed, Arntz's claim that a final **i** is present is partly motivated by the need to account for the spelling **iu** (Arntz and Zeiss 1939, 365–67; Findell 2012, 65).

If Weimar **piuþ/wiuw** is allowable as a witness to */iu/* derived from **/eu/* (which is doubtful), the initial **i-** of the following sequence **ida** (interpreted as the feminine name *Ida*) could provide a conditioning environment, if the umlaut process does not respect word boundaries (that is, if juncture is not a barrier to umlaut).

Mertingen **ieok a...** → *jeoka* appears to contain */eo/* conditioned by */-a/* (if we allow it at all). Weimar I **leob** is isolated on one of the fibula knobs, the relationship to the co-text being unclear. If this is a zero-suffixed reflex of **leubaz*, the underlying **/-a/* would produce */eo/* (→ Frankish *leob-Ø*, versus Upper German *liub-Ø*). Weimar I **liubi** and **leob** can be reconciled if we accept Arntz's reading of an *i*-rune and if we assign the inscription to a dialect in which Upper German consonant conditioning is not operative.

The most frequent spelling is **eu**, for which we can propose several possible explanations: (i) it is an orthographic archaism; (ii) it consistently represents one of the alternants */iu/* or */eo/*; or (iii) it is a free orthographic variant for both of them.

With the exception of Nordendorf **leubwini?**, every instance of **eu** occurs before an overt or underlying non-high vowel, where the umlaut process would regularly produce */eo/*. On the other hand, all of them appear in the root **leub-*, with a labial consonant which would regularly yield Upper German */iu/*. We could hypothesise that **eu** is either a free variant with **eo** for */eo/*, if the consonant conditioning does not apply; or with **iu** for */iu/*, if this conditioning does apply. If, on the other hand, we are dealing with a formulaic word **leub-* (see, e.g., Schwab 1998), it may be more resistant than other words to phonetically-motivated respelling.

Almost all of the inscriptions containing reflexes of **/eu/* come from sites well within Upper German dialect territory (the exceptions being Engers and Weimar). If all of the **eu** forms can be identified as dialectally Upper German, and if we accept the hypothesis that the Upper German consonant conditioning has taken place (as it must, if it is to be interpreted in terms of blocking *a*-umlaut, rather than as a later development of */eo/*), then **eu** may simply be a variant spelling of **iu** → */iu/*; although if this is the case, we might reasonably ask why **eu** is more frequent.

Conversely, if the **eu** sequences can be assigned to a regional dialect and/or to a chronological stage in which the Upper German consonant-conditioned change has not taken place, then **eu** might be an orthographic variant of **eo** → /eo/, which leaves us with the same question about frequency.

A simple solution to this is to hypothesise that **eu** is simply an archaism, as discussed above. Alternatively, we could postulate that the Upper German consonant conditioning is underway, but that in the dialects of the inscriptions it has reached an intermediate stage, with only the off-glide assimilated by the following consonant. This is not plausible in the “blocking” model of the change (in which /iu/ before a labial or velar is simply an inherited */iu/ unaffected by *a*-umlaut); but if Upper German /iu/ before a labial or velar consonant with a following non-high vowel is a secondary development (i.e., Proto-Germanic **leub-a-* > pre-Old High German **leob-a-* > pre-Upper German **leob-Ø* > **leub-Ø* > Upper German *liub-Ø*), then it is conceivable that the off-glide */o/ is raised under the influence of the following /b/. In Vennemann’s account (1972, 879), the dentals and /h/ do not block *a*-umlaut because the back of the tongue is relatively low during their articulation. This implies that the labials and velars involve a relatively high tongue posture which attracts the off-glide (*[o] > *[u]). The raised off-glide might in turn exert an assimilatory raising of the on-glide *[e]. A model of this sort does, however, require us to explain the **iu** spellings as either umlaut forms or “advanced” forms of the Upper German consonant conditioning.

The Engers witness may be problematic for this hypothesis: the find-site is in Frankish dialect territory and there is no evidence that it originated further south (though the possibility cannot be ruled out). The **eu** spelling in this instance is probably best accounted for as an archaism.

Mertingen appears to be anomalous in any model of Upper German consonant conditioning. Here we have an **eo** spelling with plausible umlaut-conditioning (if juncture is transparent to umlaut), but with a velar consonant, found well within Upper German territory. The fibula is an imitation of the “Nordic” type, which was probably manufactured in mid- or southern Germany (Martin 2004, 179 n. 45). We can, then, cautiously suggest that the Mertingen inscription may originate in an area in which Upper German consonant conditioning is not operative, and came south as an import.

The doublet of Weimar I **leob**, **liubi** is at odds with Upper German consonant conditioning (regardless of what model we use), unless we claim that the two examples belong to different dialects and are the work of different carvers. This is certainly possible: Nedoma comments that this

inscription and that on the paired fibula (Weimar II) are the work of multiple carvers and therefore contain multiple texts (Nedoma 2004a, 258), although he does not claim that different dialects are involved. The most straightforward explanation for the forms of Weimar I is as umlaut alternants in a non-Upper German dialect, as I suggested earlier.

The only case where Upper German consonant conditioning must be operative is Niederstotzingen **liub** (and even this is open to question, the co-text being unintelligible). If we are to claim that the Upper German distribution of /iu/ and /eo/ is present in the “runic” period, then we have also to find some other way of accounting for Mertingen **eo** (if we are prepared to accept Düwel’s speculative interpretation). Some hypotheses which would account for the data are:

1. The **eu** spellings represent an intermediate */eu/ derived from */eo/ (and Upper German consonant conditioning is a matter of raising triggered by labials and velars, rather than blocking of *a*-umlaut). Mertingen is an import, or an indicator that the raising process affects labials before it affects velars, or does not in fact contain a reflex of */eu/. Niederstotzingen is a later witness, with a fully developed Upper German /iu/. Engers is an isolated archaism, or an import from the Upper German area.
2. The **eu** spellings are archaisms in free variation with **iu** → Upper German /iu/ : **eo** → Frankish /eo/, and Upper German consonant conditioning on either the “umlaut-blocking” or the “raising” model is operative. Mertingen is an import, or is inadmissible (see hypothesis 1).
3. Upper German consonant conditioning is a later development (and must therefore be explained by the raising model rather than the umlaut-blocking model), attested only in the relatively late Niederstotzingen example. **eu** is an archaic spelling which can stand for any reflex of Proto-Germanic */eu/.

Conclusions

For each of the Proto-Germanic diphthongs, we have alternations between several graphic representations: */ai/ → **ai** ~ **ai̅** ~ **ae** (~ **e?**); */au/ → **au** ~ **ao** (with **aw** a related form, and one possible — though doubtful — case of **o**); */eu/ → **eu** ~ **iu** ~ **eo**. Of these sets of alternants, the reflexes of */au/ come closest to matching the conditions for the changes attested in the later dialects (in this case, monophthongisation); but even here, the small quantity of data limits the strength of our conclusions.

Because the conditions for the Old High German monophthongisation of */au/ are similar to those governing the Upper German distribution of the reflexes of */eu/, we might look for a common phonetic explanation. The runic data are of limited use for this purpose: reflexes of */au/ are attested only before alveolars (where the development [ao](?) > [ɔ:] is regular in Old High German), while we have reflexes of */eu/ only before labials and velars (where the surface form in Upper German is /iu/). The only reflex of */eu/ which cannot plausibly be accounted for as a product of umlaut is Niederstotzingen **liub**. If the */eu/ data can be explained without reference to consonant conditioning, and if there is no direct overlap between the consonantal environments of the attested reflexes of */eu/ and */au/, then we do not have grounds to advance a hypothesis in which their distributions can be viewed as part of a single process. This is not to say that (aside from Mertingen **ieok**, if admissible) the data are inconsistent with a hypothesis in which */eu au/ develop into *[iu au] before labials and velars and *[eo ao] before dentals and /h/ in Upper German dialect territory (*/eo/ appearing only where it is motivated by umlaut).

The suggestion of conservative spelling in accounting for the form **eu** is superficially appealing, but it presents us with a dangerously easy way to dispose of anomalies. How are we to evaluate the gap between spoken and written language? Who is enforcing the conservative orthography, and by what means? The situation differs from that of manuscript production in the Old High German/Old Saxon period, which we know to have orthographic conventions which can be transmitted through the institutions of the scriptoria. We have no evidence for the existence of comparable institutions governing the production of runic inscriptions.

Bibliography

- Antonsen, Elmer H. 1975. *A Concise Grammar of the Older Runic Inscriptions*. Sprachstrukturen, ser. A: Historische Sprachstrukturen 3. Tübingen.
- Arntz, Helmut, and Hans Jänichen. 1957. "Neue Runeninschriften aus Württemberg." *Fundberichte aus Schwaben*, n.s. 14, 117–31.
- Arntz, Helmut, and Hans Zeiss. 1939. *Die einheimischen Runendenkmäler des Festlandes*. Leipzig.
- Babucke, Volker, and Klaus Düwel. 2001. "Eine Bügelfibel mit Runeninschrift aus dem frühmittelalterlichen Gräberfeld von Mertingen." In *Augsburger Beiträge zur Archäologie*, vol. 3: *Sammelband 2000*, ed. Lothar Bakker, 161–70. Augsburg.
- Bammesberger, Alfred. 2002. "Zur Runeninschrift auf der Fibel von Weingarten." *Historische Sprachforschung/Historical Linguistics* 115, 119–21.

- Bammesberger, Alfred, and Gaby Waxenberger, eds. 1999. *Pforzen und Bergakker: Neue Untersuchungen zu Runeninschriften*. Göttingen.
- Braune, Wilhelm. 2004. *Althochdeutsche Grammatik*, vol. 1: *Laut- und Formenlehre*. 15th ed., by Ingo Reiffenstein. Tübingen.
- Coetsem, Frans van. 1975. "Generality in Language Change: The Case of the Old High German Vowel Shift." *Lingua* 35, 1–34.
- Durrell, Martin. 1977. "The Old High German Monophthongization." *Zeitschrift für Dialektologie und Linguistik* 44, 50–80.
- Düwel, Klaus. 1989. "Runenritzende Frauen." In *Studia Onomastica: Festschrift till Thorsten Andersson 23. februari 1989*, ed. Lennart Elmevik et al., 43–50. Lund.
- . 1991. "Kontinentale Runeninschriften." In *Old English Runes and Their Continental Background*, ed. Alfred Bammesberger, 271–86. Heidelberg.
- . 1997. "Zur Runeninschrift auf der silbernen Schnalle von Pforzen." *Historische Sprachforschung/Historical Linguistics* 110, 281–91.
- . 1998. "Die Runenarbeit am Seminar für deutsche Philologie (Arbeitsstelle: Germanische Altertumskunde), Göttingen: Neufunde 1997 (und früher)." *Nytt om runer* 13, 16–17.
- . 1999. "Die Runenschnalle von Pforzen (Allgäu) — Aspekte der Deutung: 3. Lesung und Deutung." In Bammesberger and Waxenberger 1999, 36–54.
- Findell, Martin. 2012. *Phonological Evidence from the Continental Runic Inscriptions*. Ergänzungsbände zum Reallexikon der Germanischen Altertumskunde 79. Berlin.
- Fingerlin, Gerhard, and Klaus Düwel. 2002. "Neudingen." In *Reallexikon der Germanischen Altertumskunde*, founded by Johannes Hoops, ed. Heinrich Beck et al., vol. 21, 108–11. Berlin.
- Gallée, Johan Hendrik. 1910. *Altsächsische Grammatik*. 2nd ed. Halle.
- Holthausen, Ferdinand. 1921. *Altsächsisches Elementarbuch*. 2nd ed. Heidelberg.
- Klein, Thomas. 2001. "Merowingerzeit, § 1. Sprachliches." In *Reallexikon der Germanischen Altertumskunde*, founded by Johannes Hoops, ed. Heinrich Beck et al., vol. 19, 579–87. Berlin.
- KJ + number = inscription published in Krause 1966.
- Krause, Wolfgang. 1966. *Die Runeninschriften im älteren Futhark*. With contributions by Herbert Jankuhn. 2 vols. Abhandlungen der Akademie der Wissenschaften in Göttingen, philologisch-historische Klasse, 3rd ser. 65. Göttingen.
- . 1971. *Die Sprache der urnordischen Runeninschriften*. Heidelberg.
- Looijenga, Tineke. 2003. *Texts and Contexts of the Oldest Runic Inscriptions*. The Norther World 4. Leiden.
- Marold, Edith. 2004. "Die Schnalle von Pforzen und die altnordische Heldensage." In *Verschränkung der Kulturen: Der Sprach- und Literaturaustausch zwischen Skandinavien und den deutschsprachigen Ländern; Zum 65. Geburtstag von Hans-Peter Naumann*, ed. Oskar Bandle, Jürg Glauser and Stefanie Würth, 217–38. Beiträge zur nordischen Philologie 37. Tübingen.
- Martin, Max. 2004. "Kontinentalgermanische Runeninschriften und 'alamannische Runenprovinz' aus archäologischer Sicht." In Naumann 2004, 165–212.

- Naumann, Hans-Peter, ed. 2004. *Alemannien und der Norden: Internationales Symposium vom 18.–20. Oktober in Zürich*. Ergänzungsbande zum Reallexikon der Germanischen Altertumskunde 43. Berlin.
- Nedoma, Robert. 2004a. *Personennamen in südgermanischen Runeninschriften*. Heidelberg.
- . 2004b. “Noch einmal zur Runeninschrift auf der Gürtelschnalle von Pforzen.” In Naumann 2004, 340–70.
- Nielsen, Hans Frede. 2000. *The Early Runic Language of Scandinavia: Studies in Germanic Dialect Geography*. Heidelberg.
- Opitz, Stephan. 1987. *Südgermanische Runeninschriften im älteren Futhark aus der Merowingerzeit*. 3rd ed. Kirchzarten.
- Orel, Vladimir. 2003. *A Handbook of Germanic Etymology*. Leiden.
- Penzl, Herbert. 1971. *Lautsystem und Lautwandel in den althochdeutschen Dialekten*. München.
- Pieper, Peter. 1999. “Die Runenschnalle von Pforzen (Allgäu) — Aspekte der Deutung: 2. Technologische Beobachtungen und runographische Überlegungen.” In Bammesberger and Waxenberger 1999, 25–35.
- Ringe, Don. 2006. *A Linguistic History of English*. Vol. 1, *From Proto-Indo-European to Proto-Germanic*. Oxford.
- Schwab, Ute. 1998. “Runen der Merowingerzeit als Quelle für das Weiterleben der spätantiken christlichen und nichtchristlichen Schriftmagie?” In *Runeninschriften als Quellen interdisziplinärer Forschung: Abhandlungen des Vierten Internationalen Symposiums über Runen und Runeninschriften in Göttingen vom 4.–9. August 1995*, ed. Klaus Düwel and Sean Nowak, 376–433. Ergänzungsbande zum Reallexikon der Germanischen Altertumskunde 15. Berlin.
- . 1999. “Zweierlei Runenwünsche aus alamannischen Fundstätten.” In *Ze hove und an der strâzen: Die deutsche Literatur des Mittelalters und ihr “Sitz im Leben”*; *Festschrift für Volker Schupp zum 65. Geburtstag*, ed. Anna Keck and Theodor Nolte, 12–27. Stuttgart.
- Vennemann, Theo. 1972. “Phonetic Detail in Assimilation: Problems in Germanic Phonology.” *Language* 48, 863–92.
- Wagner, Norbert. 1999. “Zur Runeninschrift von Pforzen.” In Bammesberger and Waxenberger 1999, 91–97.
- Wright, Joseph. 1906. *An Old High German Primer*. 2nd ed. Oxford.