

## PHILOLOGY MATTERS TO EARLY ANGLO-SAXON MONEY MATTERS

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IN the introduction to the essay collection *Medieval Money Matters*, the editor quotes Philip Grierson as follows: 'Historians have much to learn from numismatists, but there is a barrier of non-recognition and non-comprehension which must be broken down before each group can make use of the work of the other in the manner most helpful to both'. This volume does, as claimed, 'illustrate the collapse of Grierson's barriers',<sup>1</sup> as does also, for instance, previous work by at least one of the contributors to this volume.<sup>2</sup> The reciprocal benefit of trade also between philologists and numismatists, as well as historians, has won increasing recognition with respect to interpretations of names on Anglo-Saxon coins, a situation to which the works of Smart dating back to 1968 have made a notable contribution.<sup>3</sup>

For example, Smart's recent application of numismatic skills in interpreting early Anglo-Saxon coin epigraphy, allows the conclusion that three forms formerly regarded as representing three different moneyers' names are most plausibly interpreted as forms of a single name.<sup>4</sup> The deletion of two 'obscure' names from the canon of Old English personal names is of significance (not to say relief) to philologists; and the reduction in the number of moneyers is of importance to numismatists seeking patterns of minting and moneyers in the period in question. I have detailed the value to philologists of the arrangement of personal-name data supplied by Smart in the first *Index* to the *SCBI* series elsewhere.<sup>5</sup> Collaboration between a numismatist and a runologist resulted in the clarification of the form <EFE> on coins of the East Anglian King Beonna as a moneyer's name.<sup>6</sup> Collaboration with Archibald also prompted Colman's philological exploration of an intractable moneyer's name.<sup>7</sup> And collaboration produced the 1991 volume edited by Bammesberger, in which philologists and numismatists trade ideas. These illustrations provide sufficient evidence of the enthusiasm with which students of different fields, related by a concern with affairs of Anglo-Saxon England, now greet each others' contributions to research. It is, however, possible to mis-place enthusiasm.

In the volume edited by Bammesberger, Blackburn says that '[i]n the ninth-century Mercian and West Saxon coinages, Paul Bibire has drawn attention to a standardisation in the spelling of the obverse inscriptions as contrasted with the considerable dialectal variation exhibited by the moneyers' names on the reverse'.<sup>8</sup> Since the paper from which Bibire is cited here had not then appeared in print, numismatists had a few years to accept this claim, and to draw conclusions about possible centralisation of die-cutting of obverses, with regional production of reverses. And even after its appearance, its 'findings' have apparently continued to elicit uncritical support, and to form the basis for the erection of potentially important numismatic theories. I quote now in full from Blackburn:

*Acknowledgements:* In the course of writing this paper I have gratefully accepted many of the improving suggestions about its content and style offered by Professor John Anderson, Miss Marion Archibald, Jackie Goodman, Professor Anthony Goodman, Dr Veronica Smart, and Professor E.G. Stanley. Useful glossaries and indices to philological / linguistic terminology used in this paper are available in Hogg (ed.) 1992 and Lass 1994.

<sup>1</sup> Wood 2004, vii, citing Grierson 1951.

<sup>2</sup> Nightingale 1982.

<sup>3</sup> Smart 1968; see also van der Meer 1965.

<sup>4</sup> Smart 2001.

<sup>5</sup> Colman 1983; *SCBI* 28 (*Cumulative Index*).

<sup>6</sup> Page 1985; also noted as a moneyer in *SCBI* 28 (*Cumulative Index*), 34. Previously '[t]here [had] seem[ed] three possibilities: that EFE is a moneyer's name; that EFE is the name of the mint; or that EFE is a meaningless conjunction of letters': Pagan 1968.

<sup>7</sup> Colman 1997.

<sup>8</sup> Blackburn 1991, 159–60.

That certain aspects of the coin designs were laid down is evident from the coin inscriptions. We find that the form of the king's name is more standardized than that of the moneyer and sometimes it is in a different dialect, as Bibire has shown. For example, the coins of Berhtwulf of Mercia (840–52), which were struck at London, invariably spell the kings' name **BERHTVVLF** or **-VLF**, with Anglian smoothing of the first element, which is indicative of a Mercian or Northumbrian dialect, whereas none of the eleven moneyers' names on the reverses shows any sign of Anglian smoothing; and where the form is diagnostic it is always in what appears to be a Kentish dialect. This implies that the die-cutter was given a model which included the obverse inscription defined by the Mercian court, but for the moneyer's name he drew on his own native Kentish or London dialect. Little is known about the dialect used in London during the Anglo-Saxon period – indeed the coins may be the only evidence to survive.<sup>9</sup>

Bibire's paper appears in the collection edited by Blackburn and Dumville which appeared in 1998: a collection which in principle evinces appreciation of the value of interdisciplinary collaboration, containing not only works by eminent numismatists, historians, and specialists in other fields, but also the one by Bibire. Because Bibire's paper ostensibly deals with philological matters, it might have been expected to constitute a welcome acknowledgement of the value to philologists of the concerns of the types of issues treated elsewhere in the volume, and to offer a concomitant indication of the potential signification of philological interpretation of moneyers' names to numismatic and historical theories. It is this paper, however, and the influence on numismatists of the proposal as phrased by Blackburn above, that signals caution against uncritical acceptance by students in one field, of claims made by one in another. This proposal, and philological objections to it, are the concerns of what follows.

The relevant claim is that '[i]n general there is more consistency in the forms of the kings' or archbishops' names than the moneyers' names, and it seems probable that some degree of central standardization of the obverse inscription took place as part of the instruction defining the coin design'.<sup>10</sup> Bibire's statement is certainly guarded; but the proposition has invited firmer conclusions, as by Blackburn.<sup>11</sup> Marion Archibald has pointed out that 'consistency' in forms of king's names would be a natural consequence of the fact that the die-cutter(s) cut the king's name more frequently than that of any individual moneyer, and 'so would soon have developed an almost automatic facility in doing so and as a result obverses would naturally display greater consistency whether or not a specific formula had been laid down from headquarters'.<sup>12</sup> However, Bibire's 1998 claim itself suffers, both (1) on empirical grounds and (2) on grounds of philological interpretation of dialectal forms of Old English personal names.

With respect to (1), Bibire acknowledges that the kings' names he cites 'are drawn mainly from the *British Museum Catalogue*'.<sup>13</sup> But available in volumes of *SCBI* and elsewhere are examples of variant forms of kings' names. As an example of the purported consistency in forms of king's names, Bibire states that the name of King Berhtwulf (of Mercia) is 'spelled universally **BERHTVLF** or **BERHTVVLF**' (as accepted and cited by Blackburn, quoted above).<sup>14</sup> Yet in a paper in the same volume is cited the undeniably Kentish form **<BIARHTVLF>**.<sup>15</sup> It may be of interest that the name of the moneyer, Brid, identified on this coin, also occurs on coins with the obverse spellings **<BERHTVLF>** and **<BERHTVVLF>**.<sup>16</sup> A moneyer of the same name, presumably representing the same man, also minted for the contemporaneous King Æthelwulf of Wessex; Booth discusses the potential significance of this as evidence for the political situation pertaining between Mercia and Wessex, as well as for mint attribution of the coins in question.<sup>17</sup> **<BIARHTVLF>** is not a unique instance of regional dialectal variation in the forms of kings' names. Also Kentish are forms of the name of King Ecgbeorht of

<sup>9</sup> Blackburn 2003, 201–2.

<sup>10</sup> Bibire 1998, 166; and see also p. 156: 'there is a marked discrepancy between the treatment of king-names and moneyer-names on individual coins'.

<sup>11</sup> Bibire 1998, 166; Blackburn 1991 and 2003, quoted above.

<sup>12</sup> M. Archibald, personal communication 27 April 2005.

<sup>13</sup> Bibire 1998, 158; *BMC*.

<sup>14</sup> Bibire 1998, 159; Blackburn 2003, 202.

<sup>15</sup> Booth 1998, 87 no. 4, unacknowledged by Bibire, and not noted in Blackburn 2003, 201–2, quoted above.

<sup>16</sup> Booth 1998, 86 no.1, 87 no. 2, 91 no. 33, 94 no. 50, and 101.

<sup>17</sup> Booth 1998, 68–72.

Wessex (early ninth-century, but not included in Bibire's discussion) with second element spelled <BEARHT>.<sup>18</sup> One could multiply relevant examples of data contradicting Bibire's claim: and I return below to instances of variant forms of kings' names cited by Bibire himself.

The form <BVRGRED> (for Burgred of Mercia), however, does seem to occur 'invariably', as Bibire suggests: but one's response is 'so what?'. That this invariability indicates 'that centralised standardisation has probably taken place' is too strong a claim. There is a touch of desperation in the suggestion that 'possible variants could be e.g. <BURH-> or less probably <-RÆD>, beside more random forms'.<sup>19</sup> Protothemic-final <H> for <G> would not be expected in ninth-century Old English.<sup>20</sup> Replacement of final <g> by <h> (in words such as *burg* 'fortified town') is usually associated with a late Old English phonological change: devoicing of the final velar fricative.<sup>21</sup> And despite the etymological connection of the deuterotheme with OE *ræd* 'counsel, advice', the long 'ash' vowel in the name-element is, as Bibire says, less probable. The forms with <E> would be typical of non-West-Saxon (i.e. Anglian, including Mercian) *red*, and certainly typical as representing a reduced non-back vowel in the second element of compound (dithematic) names in any regional dialect.<sup>22</sup> I must note that the *Anglo-Saxon Chronicle* (manuscript 'A', the Parker Chronicle, 832–900) has two instances of the Mercian king's name as <Burgræd>, against only one of <Burgred> and one of inflected <Burgrede> (and manuscript 'E', the Laud Chronicle, 1122–54, has one <Burgred>).<sup>23</sup> But the data in the Toronto Corpus show that, in manuscript records of whatever period, the personal-name second element *ræd* appears with overwhelming frequency as <red>.

What is meant by Bibire's 'more random forms'? One might cite the forms <BVRRED> and <BVRED> for the moneyer named **Burgræd**, on coins of Edward the Confessor (1042–66), from the London and Southwark mints.<sup>24</sup> In such forms, absence of <G> is evidence of loss of the protothemic-final consonant, which 'may anticipate the early Middle English evidence' (cf. New English *borough*, *Edinburgh*) or which may be evidence of the common phenomenon of consonant loss within compound names.<sup>25</sup> Neither account of the forms of the later moneyers' name would necessarily lead one to expect such forms for the name of the ninth-century Mercian king. The Toronto Corpus shows no such forms in manuscript data, for the name of this king or for any other individual. Again with respect to 'more random forms', one might also think of the 'parasite' vowel evidenced in forms of the common word *burg*, such as <burug>, <byrig>, in late Northumbrian.<sup>26</sup> But this is not typical of forms of the proper name-element in early texts.<sup>27</sup> And the <y> in <byrig>, <byrig> represents a mutated vowel in forms of the dative singular and nominative and accusative plural,<sup>28</sup> as in, for example, <of Sancte Eadmundes byrig> 'from Saint Edmund's town', found in the *Anglo-Saxon Chronicle*, manuscript 'E': an inflected form not to be expected for the prototheme of the personal name. In short, the name **Burgred** is dialectally boring: it is an unlikely source of evidence for regional dialectal spelling variation. The form <BVRGRED> is not a dog that didn't bark. To compare the consistency of forms of this king's name at the period in question with variation in forms of other names amounts to nothing.

<sup>18</sup> e.g., *SCBI 2 (Hunterian Museum)*, nos 529, 530, 531, all from different dies; compare 'normal' West-Saxon <ECGBEORHT>, nos 534–535, from different dies.

<sup>19</sup> Bibire 1998, 160.

<sup>20</sup> But see Campbell 1959, §446; Hogg 1992, §7.63 for sporadic early examples in eighth-century Mercian glosses, whose 'reliability' as evidence of phonology is variable.

<sup>21</sup> Campbell 1959, §446; Hogg 1992, §§7.60, 7.61; an earlier example is provided by *SCBI 9 (Ashmolean Museum)*, no. 294 and *SCBI 2 (Hunterian Museum)*, no. 593: <BEAHRED> = **Beagred**, moneyer for Edward the Elder 899–925: but this would not warrant an expectation of a variant form <BVRH> for Burgred's name.

<sup>22</sup> Campbell 1959, §§128, 372.

<sup>23</sup> These and all subsequent references to the *Anglo-Saxon Chronicle* are taken from the Toronto Corpus.

<sup>24</sup> Colman 1992, 288 and 315.

<sup>25</sup> Colman 1992, 201.

<sup>26</sup> And elsewhere: Campbell 1959, §§361, 365.

<sup>27</sup> See, e.g., the names with **Burg-** in Sweet 1885, 553.

<sup>28</sup> Campbell 1959, §§624, 627.

Moreover, there are, obviously, fewer kings' names than moneyers' names in the data at issue; and it happens that the kings' names consist of elements less susceptible to (regional) dialectal variation than many of the moneyers' names (especially those containing reflexes of historical diphthongs: see further below). But Bibire himself cites, for instance, the variants <ÆÐELVVULF> and <EÐELVVULF> for King Æthelwulf of Wessex, and <ÆÐELRED> and <EÐELRED> for Æthelred I of Wessex. The <Æ> ~ <E> alternation in the prototheme associated with OE *ædel* 'noble' plausibly represents regional dialectal variants, as cited, but without comment, by Bibire.<sup>29</sup> Indeed this alternation has incited considerable debate amongst Old English dialectologists.<sup>30</sup> But the forms of the deuterotheme (cognate with *wulf* 'wolf') offer no overt opportunity for a display of such distinctions. So, what regional dialectal variation is to be detected in forms of kings' names, Bibire seems to dismiss as inconsequential; and where there is invariance (as in <BVRGRED>, above), he invents putative variational possibilities in order to argue that they do not occur.

So, this brings us to point (2) above: philological interpretation. On Bibire's concepts of philological method, on his assumptions about continuity of a single 'London dialect' from Old to Middle English,<sup>31</sup> and on his misguided assumptions that mint-identity allows correlation of coin-spellings with Old English regional dialects, I have dilated in two relatively recent papers, with detailed philological and numismatic references;<sup>32</sup> this is not the place to re-iterate extensive arguments. A major point, however, is that, in interpreting forms of Old English personal names as evidence for philology, in particular for regional dialectal variation, a crucial factor is the attempt at plausible etymologies for the name-elements: with what common words are the elements cognate? The importance of attention to this is illustrated by Bibire's failure to provide etymological support for his claim for forms of the moneyer's name **Hebeca**, that 'Kentish or Vespasian Psalter [*recte* Mercian] *e* for *æ*' appears 'possibly in **NEBECA** (for **HEBECA**)', later less tentatively expressed as 'probably in **HEBECA**'.<sup>33</sup> As I have discussed elsewhere, with more detailed etymological references than given below, the relevant stems are 'IB' and 'EB' (the latter possibly an unlauded, or mutated, variant of 'AB').<sup>34</sup> The initial <H> represents an unetymological prosthetic [h], as evidenced also in, for instance, forms of names with a prototheme related to OE *lud* 'loud', but spelled <Hlud>.<sup>35</sup> The <E> in <HEBECA> is neither 'possibly' nor 'probably' a reflection of a Kentish or Mercian vocalic variant. It is most unlikely to be. The suggestion that the form is evidence of regional dialect variation in the spelling of moneyers' names does not stand up to etymological scrutiny, and thus cannot appropriately be cited as evidence of Bibire's hypothesis about a degree of standardisation of kings' names as opposed to moneyers' names.

Whatever ambivalence is to be accorded the etymology of the stem of **Hebeca**, there is no doubt as to the etymological source of the (diphthongal) vowel of the prototheme of the name of King Ceolwulf of Mercia, cognate with Old English *ceol* 'keel'. Proto-Germanic [eu], as in this word, 'descended' into Old English as a long diphthong ([e:o]), 'normally' spelled <eo>.<sup>36</sup> For the present purpose, this is to be distinguished from Proto-Germanic [iu], which 'normally' appears in early Old English as <io>, representing a long diphthong [i:u].<sup>37</sup> In Kentish Old English, however, the first segment of the [e:o] diphthong was raised to [i], according to prevailing interpretations of Kentish <io> spellings for Proto-Germanic [eu], as in, e.g., <ciol> 'keel', cf. non-Kentish <ceol> (above), <priost> 'priest', cf. non-Kentish <preost>, <ðiow> 'servant', cf. non-Kentish <ðeow>, etc.<sup>38</sup> Thus, the form

<sup>29</sup> Bibire 1998, 161–2.

<sup>30</sup> See, e.g., De Camp 1958; Toon 1983; Colman 1988, §4, 2004a, §2.

<sup>31</sup> Cf. Blackburn 2003, 202, quoted above.

<sup>32</sup> Colman 2004a, 2004b.

<sup>33</sup> Bibire 1998, 161, 163 and 164.

<sup>34</sup> Colman 2004b, §6.

<sup>35</sup> Schönfeld 1911, xxiii; see further, e.g., Schönfeld 1911, 132; Förstemann 1900, 435, 941, 942; Forssner 1916, 169; Kaufmann 1968, 212.

<sup>36</sup> Campbell 1959, §§120, 297; Hogg 1992, §5.41; see also Walde 1927–32, 556.

<sup>37</sup> Or [i:u]: Hogg 1992, §5.41

<sup>38</sup> Campbell 1959, §297; Hogg 1992, §5.160.

<CIOLVVULF> on obverses of coins of King Ceolwulf is, by all reliable accounts, indicative of a Kentish diphthong in the prototheme. And yet Bibire, citing this form alongside the also attested <CEOLVVULF>, claims, with no supporting citation of references, that the former preserves ‘the high first element of OE *īo*, which does not need to be Kentish’.<sup>39</sup> Perhaps an overzealous desire to prove lack of regional variation in forms of kings’ names has in this instance prompted the proposal of a clearly false etymology. The error is repeated, again with no supporting references, in ‘Kentish raising and unrounding of diphthongs is not visible in CIOLVVLF (which has original *īo*)’.<sup>40</sup> And yet, the self-contradictory observation that ‘instances with Kentish raising and unrounding of the diphthongs are well attested: CEALNOÐ etc., CIALNOÐ, CIALNOÐ [sic]’ implies acceptance of the canonical etymology of the protothemic element as having a vowel etymologically descended from Proto-Germanic [eu], whose first segment shows raising in Kentish (cited above), in <IA>, and whose second, in <EA> and <IA>, in the same dialect, shows the unrounding reflected by the <A> spelling.<sup>41</sup> The lack of reference to etymological-philological works in support of the claims about forms of the name-element, as well as the self-contradiction expressed in the quotations cited above, might give pause to those from other disciplines wishing to avail themselves of the potential information to be gleaned from forms of personal names on Anglo-Saxon coins. But in the same volume, Blackburn and Keynes accept and cite Bibire, in remarking that ‘the *Ciol-* form is not distinctive in terms of dialect’, thus also tacitly acquiescing in acceptance of the proposal that kings’ names on ninth-century Anglo-Saxon coins did not show the sorts of regional dialectal variation as shown by forms of the moneyers’ names.<sup>42</sup> And thus may be constructed misguidedly a numismatic theory about centralisation of production of obverse dies, as opposed to regional production of reverses.

This is not to say that such a theory in itself, based on other grounds, might not be tenable. But its support (let alone proof) is not to be founded upon philological arguments (and by implication etymological claims) which themselves do not survive examination.

#### REFERENCES

- Archibald, M.M., 1985. ‘The coinage of Beonna in the light of the Middle Harling hoard’, *BNJ* 5, 10–54.
- Bammesberger, A. (ed.), 1991. *Old English Runes and their Continental Background* (Heidelberg).
- Bibire, P., 1998. ‘Moneyers’ names on ninth-century Southumbrian coins: philological approaches to some historical questions’, in Blackburn and Dumville 1998, 155–66.
- Blackburn, M.A.S., 1991. ‘A survey of Anglo-Saxon and Frisian coins with runic inscriptions’, in Bammesberger 1991, 137–89.
- Blackburn, M.A.S., 2003. ‘Alfred’s coinage reforms in context’, in Timothy Reuter (ed.), *Alfred the Great: Papers from the Eleventh-Centenary Conferences* (Aldershot), 199–217.
- Blackburn, M.A.S., and Dumville, D.N. (eds), 1998. *Kings, Currency and Alliances: History and Coinage of Southern England in the Ninth Century* (Woodbridge).
- Blackburn, M.A.S., and Keynes, S., 1998. ‘A corpus of the *Cross-and Lozenge* and related coinages of Alfred, Ceolwulf II and Archbishop Æthelred’, in Blackburn and Dumville 1998, 125–50.
- Booth, J., 1998. ‘Monetary alliance or technical co-operation? The coinage of Berhtwulf of Mercia (840–852)’, in Blackburn and Dumville 1998, 63–103.
- BMC* See Keary and Grueber 1887–93.
- de Camp, D., 1958. ‘The genesis of the Old English dialects: a new hypothesis?’, *Language* 34, 232–44.
- Campbell, A., 1959. *Old English Grammar* (Oxford).
- Colman, F., 1983. ‘Review of Veronica Smart, *Sylloge of Coins of the British Isles 28: Cumulative Index of Volumes 1–20*’, *Nomina* 7, 117–20.
- Colman, F., 1988. ‘What is in a name?’, in Jacek Fisiak (ed.), *Historical Dialectology* (Berlin), 111–37.
- Colman, F., 1992. *Money Talks: Reconstructing Old English* (Berlin).
- Colman, F., 1997. ‘More meetings of philology and linguistics – with a little help from their friends: on a recently discovered Anglo-Saxon coin’, in T. Nevalainen and L. Kahlas-Tarkka (eds), *Studies in the Changing English Language: in Honour of Matti Rissanen* (Helsinki), 25–33.

<sup>39</sup> Bibire 1998, 161.

<sup>40</sup> Bibire 1998, 165.

<sup>41</sup> Bibire 1998, 163; Campbell 1959, §280.

<sup>42</sup> Blackburn and Keynes 1998, 143 n.2.

- Colman, F., 2004a. 'On interpreting Old English data as evidence for reconstructing Old English: in part a defence of philology, with special reference to personal names on Anglo-Saxon coins', in I. Moskowich-Spiegel Fandiño and B. Crespo Garcia (eds), *New Trends in English Historical Linguistics: an Atlantic View* (Coruña), 75–114.
- Colman, F., 2004b. 'Kentish Old English <b>/<B>: orthographic 'archaism' or evidence of Kentish phonology?' *English Language and Linguistics* 8.2, 171–205.
- Forssner, T., 1916. *Continental Germanic Personal Names in England* (Uppsala).
- Förstemann, E.W., 1900. *Altdeutsches Namenbuch 1: Personennamen* (Bonn) [reprinted Munich 1916].
- Grierson, P., 1951. *Numismatics and History*, Historical Association Publication G19 (London).
- Hogg, R.M., 1992. *A Grammar of Old English* (Oxford).
- Hogg, R.M. (ed.), 1992. *The Cambridge History of the English Language: volume 1* (Cambridge).
- Kaufmann, H., 1968. *Altdeutsche Personennamen: Ergänzungsband (to Förstemann 1900)* (Munich; Hildesheim).
- Keary, C.F., and Grueber, H.A., 1887–93. *A Catalogue of English Coins in the British Museum. Anglo-Saxon Series 1–2* (London).
- Lass, R., 1994. *Old English: a Historical Linguistic Companion* (Cambridge).
- van der Meer, G., 1965. 'Die angelsächsischen Münzen als Quelle der Philologie', *Hamburger Beiträge zur Numismatik* 18–19, 21–9.
- Nightingale, P., 1982. 'Some London moneyers and reflections on the organization of English mints in the eleventh and twelfth centuries', *NC* 142, 34–50.
- Pagan, H.E., 1968. 'A new type for Beonna', *BNJ* 37, 10–15.
- Page, R.I., 1985. 'Appendix 2: the legends on the coins', in Archibald 1985, 37–40.
- Robertson, Anne S., 1961. *Sylloge of Coins of the British Isles 2. Hunterian and Coates Collections, University of Glasgow 1: Anglo-Saxon Coins* (London).
- SCBI 2 (Hunterian Museum)*. See Robertson 1961.
- SCBI 9 (Ashmolean Museum)*. See Thompson 1967.
- SCBI 28 (Cumulative Index)*. See Smart 1981.
- Schönfeld, M., 1911. *Wörterbuch der altgermanischen Personen- und Völkernamen* (Heidelberg).
- Smart, V., 1968. 'Moneyers of the late Anglo-Saxon coinage 973–1016', in N.L. Rasmuson and B. Malmer (eds), *Commentationes de nummis saeculorum IX–XI in Suecia repertis 2 (Antikvariska serien 19)* (Uppsala), 191–276.
- Smart, V., 1981. *Sylloge of Coins of the British Isles 28. Cumulative Index of Volumes 1–20* (London).
- Smart, V., 2001. 'Aldates, Gadutels and Badugils: identification of moneyers in the Northumbrian coinage', *BNJ* 70, 141–3.
- Sweet, H., 1885. *The Oldest English Texts*, Early English Text Society, original series 83 (London).
- Thompson, J.D.A., 1967. *Sylloge of Coins of the British Isles: Ashmolean Museum, Oxford. Anglo-Saxon Pennies* (London).
- Toon, T., 1983. *The Politics of early Old English Sound Change* (New York).
- Toronto Corpus See Venezky and Healy 1980.
- Venezky, R.L. and A. di Paolo Healy, 1980. *A Microfiche Concordance to Old English* (Newark; Toronto).
- Walde, A., 1927, 1930, 1932. *Vergleichendes Wörterbuch der indogermanischen Sprachen. 3 volumes*. Revised by J. Pokorny (Berlin and Leipzig).
- Wood, D. (ed.), 2004. *Medieval Money Matters* (Oxford).