'A LIVING SPEECH'? THE PRONUNCIATION OF GREEK IN EARLY MEDIEVAL IRELAND

PÁDRAIC MORAN*

*Classics (School of Languages, Literatures and Cultures),
National University of Ireland, Galway*

ABSTRACT

While the Irish knowledge of Greek in the early Middle Ages has been much debated, the evidence of Irish language texts has been largely ignored. Early Irish glossaries (O'Mulconry's Glossary, *Sanas Cormaic*, *Dúil Dromma Cetta*) cite at least 190 Greek words, and this presents an opportunity to study some sources for Greek available in Ireland. This article looks at the evidence of the glossaries for the pronunciation of Greek in particular. In doing so, it aims to clarify the extent to which Greek in Ireland was, in Zimmer's words, 'a living speech'.[1]

1. GREEK IN EARLY MEDIEVAL IRELAND

The knowledge of Greek among the early medieval Irish, both at home and abroad, has been the subject of a long and often lively debate since Ludwig Traube published his seminal study 'O Roma nobilis' in 1891.[2] Traube boldly asserted that 'anyone on the Continent who knew Greek during the time of Charles the Bald was either an Irishman or without question had acquired this knowledge from an Irishman, or else the report which surrounded the person with such renown was a fraud'.[3] Bernhard Bischoff's study also placed particular emphasis on the activities of Irish *peregrini*,[4]

---

[1] See note 22 below.

[2] Ludwig Traube, 'O Roma nobilis. Philologische Untersuchungen aus dem Mittelalter', *Abhandlungen der Bayerischen Akademie der Wissenschaften* 19/2 (1891), 299–395. See the broad survey by Walter Berschin, *Griechisch-lateinisches Mittelalter: von Hieronymus zu Nikolaus von Kues* (Berne and Munich, 1980), translated by Jerold C. Frakes, *Greek letters and the Latin Middle Ages: from Jerome to Nicholas of Cusa* (Washington, DC, 1988). Berschin summarised the Irish evidence in 'Griechisches bei den Iren', in Heinz Löwe (ed.), *Die Iren und Europa in früheren Mittelalter* (Stuttgart, 1982), 501–10, and gave a synopsis for the earlier period in 'Greek elements in medieval Latin manuscripts', in M.W. Herren (ed.), *The sacred nectar of the Greeks: the study of Greek in the West in the early Middle Ages*, King's College London medieval studies 2 (London, 1988), 85–104.

[3] Cited in translation in Berschin, *Greek letters*, 132.

[4] Bernhard Bischoff, 'Das griechische Element in der abendländischen Bildung des Mittelalters', *Byzantinische Zeitschrift* 44 (1951), 27–55, repr. in *Mittelalterliche Studien* 2 (Stuttgart, 1967), 246–75.

though Mario Esposito had earlier dismissed the knowledge of Greek in Ireland before the ninth century as 'almost non-existent', and that of Irishmen in Carolingian circles as an 'inaccurate and uncritical smattering'.[5] David Howlett has more recently examined a variety of Insular sources, arriving at a more positive conclusion,[6] while Michael Herren collected evidence for quite limited knowledge of Greek in Ireland from the *Hisperica Famina*, the Antiphonary of Bangor and some entries from Irish glossaries.[7]

Irish language texts have generally been overlooked in the discussion,[8] and Irish glossaries neglected almost entirely.[9] Nonetheless, *Sanas Cormaic* (Cormac's Glossary; Y), O'Mulconry's Glossary (OM), *Dúil Dromma Cetta* (DDC) and the *Irsan* glossary between them contain 246 distinct entries citing, or claiming to cite, Greek words (many entries occurring in more than one glossary text).[10] As Table 1 indicates, O'Mulconry's Glossary contains more Greek than any other, with 209 such entries (nearly a quarter of its total of 877).[11] However, the highest concentration is found in the short *Irsan* glossary, with 72 entries citing Greek words out

TABLE 1—Irish glossaries citing Greek words.

Glossary	Entries citing Greek words	Total entries	Approx. %
O'Mulconry's Glossary	209	877	24%
Sanas Cormaic (total)	77	1300	6%
(short recension)	22	694	3%
(long recension only)	57	606	9%
Irsan	72	233	31%
Dúil Dromma Cetta	22	646	3%

[5] Mario Esposito, 'The knowledge of Greek in Ireland during the Middle Ages', *Studies* 1 (1912), 665–83: 683, repr. in Michael Lapidge (ed.), *Latin learning in medieval Ireland* (London, 1988).

[6] David Howlett, 'Hellenic learning in Insular Latin: an essay on supported claims', *Peritia* 12 (1998), 54–78.

[7] Michael Herren, 'The study of Greek in Ireland in the early Middle Ages', in *L'Irlanda e gli irlandesi nell'alto medioevo* (Spoleto, 2010), 511–28.

[8] See, however, Anders Ahlqvist, 'Notes on the Greek materials in the St Gall Priscian (Codex 904)', in Herren (ed.), *Sacred nectar* [see note 2 above], 195–214. An early, apparently unfinished, survey is Tomás Ua Nualláin, 'When Gael met Greek', *Irish Ecclesiastical Record* 4th series, 25 (May 1909), 513–23 and 26 (August 1909), 163–71, who collected references to Greek from the *Thesaurus Palaeohibernicus*, though offered little analysis.

[9] The significant exception for Irish glossaries is Paul Russell, '*Graece ... latine*: Graeco-Latin glossaries in early medieval Ireland', *Peritia* 14 (2000), 406–20. Herren discusses a small number of entries in 'The study of Greek', 521–3 and 525.

[10] References to printed editions are given (under Sigla) at the end of this article. These texts are currently being edited by the Early Irish Glossaries Project for print publication. Manuscript transcriptions and other resources are available online at the Early Irish Glossaries Database: http://www.asnc.cam.ac.uk/irishglossaries/ (accessed 6 October 2011). *Irsan* is the title (taken from the first headword) of a short glossary similar in content to OM but containing some unique material, which the project is editing as a distinct text.

[11] Counting glossary entries is not so straightforward, as the divisions between entries are sometimes unclear. The numbering in editions, moreover, is often inconsistent (cf. the interpolated references 183a, 315a, 361a, 830a–k in Stokes's edition of O'Mulconry's Glossary). The totals given here are derived from the Early Irish Glossaries Database.

of a total of 233. *Sanas Cormaic* contains 77 (out of 1300), the majority of which are in sections unique to the longer recension (57 out of 606). *Dúil Dromma Cetta* contains just 22 entries (out of 646).[12]

These Greek words are not the focus of the glossary entries, but instead are cited to provide etymologies for Irish headwords. The Greek is almost invariably translated into Latin (rarely directly into Irish), and the terms marked respectively *grece* and *latine* (the latter sometimes omitted).[13] The following examples are typical:

> **OM 51** *Aprinn grece aporea .i. egestas latine dommatu .i. is dometu na·dernad.* ('*Aprinn* [alas, a pity], in Greek ἀπορία [difficulty, perplexity], i.e. *egestas* in Latin, poverty, i.e. it is a lack that it has not been done.')

> **OM 88** *Anim grece animos, latine uentus uel anima.* ('*Anim* [soul], in Greek ἄνεμος [wind], in Latin, wind or spirit.')

> **OM 222** *Cerd grece cires .i. manus, unde cernach .i. būaidh lām dicitur, ar cach dān do·gnīat lāmhæ is cerd do·n-gairther .i. lāmdae.* ('*Cerd* [craft], in Greek χεῖρες, i.e. hands, from which *cernach* [victorious], i.e. victory of hands, is said, for every skill which hands execute is called a craft, i.e. handiwork.')

> **Y 810** *Lie ab eo quod est lidos grece interpretatur lapis.* ('*Lie* [stone], from the word λίθος in Greek, it means stone.')

The script used for Greek words is Latin throughout, with the exception of two entries in OM:[14]

> **OM 121** *Blāthach .i. grece playtoc grece diuitiae, uel a platea .i. latitudine.* ('*Blāthach* [buttermilk], i.e. πλοῦτος in Greek, wealth in Greek [*recte* Latin], or from πλατεῖα [broad], i.e. [from its] breadth.')[15]

> **OM 368** *Echtach quasi nechtach aidchi. Haec sunt cognomina Bachi: NYKTHΛHϹ, quia noctu celebrantur sacra eius . . .* ('*Échtach* [night bird?], as if *nechtach*, of night. These are the epithets of Bacchus: Νυκτέλιος, because his rites are celebrated by night . . .')

Cumulatively, these entries provide a useful corpus of material with which to explore the sources for the Greek language that were available in Ireland,

---

how these sources were transmitted, the accuracy of the glossary compilers' knowledge of the language and, considering the certain authorship within Ireland of these texts, the relationship of Greek learning in Irish schools to that in schools associated with Irishmen on the Continent.[16]

The present article is focused on the evidence of the glossaries for the pronunciation of Greek in early medieval Ireland. Heinrich Zimmer,[17] Kuno Meyer,[18] Joseph Vendryes,[19] W.B. Stanford,[20] and Paul Russell[21] all noted that the forms of Greek words in Irish glossaries exhibited features of medieval Greek pronunciation. For example, *e* is normally written for αι, and *i* for both ει and υ, all features of Byzantine pronunciation. Zimmer attributed this to the influence of Gaulish scholars who he thought migrated to Ireland in the fifth century to escape Germanic invaders, and he concluded that Greek in Ireland was therefore 'a living speech'.[22]

Michael Herren has searched for 'vulgar Greek' in a selection of sources dated between *c.* 600 and 1000, drawn from Spain, Italy, Switzerland, France, England and Ireland, citing corroborative evidence for features of post-Classical Greek in those texts.[23] This range of sources is disparate in terms of date and place of origin, and the volume of evidence presented is relatively small. Moreover, Herren does not cite any contrary evidence, and so we are left unsure as to how pervasive these features are.

Irish glossaries offer an opportunity to test the matter in relation to a coherent corpus of texts certainly written in Ireland. We can seek to determine, for example, whether medieval Greek pronunciation is detectable in all sounds or is restricted to a limited group (for example, vowels only); and we can explore whether it occurs consistently throughout the texts or is restricted to a limited number of entries only (perhaps derived from specific sources). Before addressing these questions, we will first survey early medieval conventions for transliterating Greek into Latin script. We will also need to assess the reliability with which Greek words can be identified in the glossaries.

[16] Some of these questions are addressed in Russell, '*Graece...latine*' and by Pádraic Moran, 'Greek in early medieval Ireland', in A. Mullen and P. James (eds), *Multilingualism in the Greco-Roman worlds* (Cambridge, forthcoming).

[17] Heinrich Zimmer, 'Über direkte Handelsverbindungen Westgalliens mit Irland im frühen Mittelalter', *Sitzungsberichte der königlich preußischen Akademie der Wissenschaften*, phil.-hist. Cl. (1909), 363–400, 430–76, 543–613 [continued (1910), 1031–119]: 583–94.

[18] Kuno Meyer, *Learning in Ireland in the fifth century and the transmission of letters* (Dublin, 1913), 26–7 (n. 35).

[19] Joseph Vendryes, 'Chronique', *RC* 24 (1913), 220–2.

[20] W.B. Stanford, 'Towards a history of classical influences in Ireland', *PRIA* 70C (1970), 13–91: 22–7.

[21] Russell, '*Graece...latine*', 408–9.

[22] Zimmer, 'Über direkte Handelsverbindungen', 561: 'Es ist kein Buchgriechisch fürs Auge, das man in altirischen Klöstern trieb, es ist die lebendige Sprache des 3./4. Jahrhunderts unserer Zeitrechnung, wie nicht nur Pelagius mit seiner Sprechfähigkeit, sondern auch noch Cormac mac Cuilennain mit seinen Etymologien beweist'.

[23] Michael Herren, 'Evidence for "Vulgar Greek" from early medieval Latin texts and manuscripts', in Herren (ed.), *Sacred nectar* [see note 2 above], 57–84.

2. TRANSLITERATION OF GREEK

The transliteration of Greek into Latin script can reveal information about the historical phonology of Greek that is typically hidden by the conservative orthography of Greek script.

The Greek alphabet and its Classical Latin transliteration were widely known.[24] It was frequently treated in computistical collections, which included tabulations of the numerical values of the Greek letters and the Greek names of both letters and numbers, including the otherwise redundant letters *digamma* (= 6, called ἐπίσημον 'symbol'), *koppa* (= 90) and *sampi* (= 900, called ἐνακόσιοι '900').[25] Dáibhí Ó Cróinín has argued that such a table of Greek letters was the 'computus' learnt by Mo Sinu maccu Min, the abbot of Bangor who died in 610.[26] However, alphabet tables were of limited use for transliteration. None that I have seen treats digraphs (e.g. ου and ει, normally transliterated *u* and *i*, respectively, and γγ, γκ, γξ, γχ, transliterated *ng, nk, nx, nch*). The long vowels η and ω are sometimes indicated in tables with doubled *ee* and *oo*, a convention I have not seen in any transliterated Greek text.[27] Furthermore, no such table, to my knowledge, departs from the conventions of Classical Latin transliteration to reflect later Greek pronunciation.

Passages of Priscian's *Institutiones grammaticae* that discuss the relationship between the Greek and Latin alphabets may have supplemented alphabet tables, providing indications for transliterating digraphs, for example.[28] Priscian, however, is strictly concerned with defining the standards of Classical Latinity, and here again no information on medieval Greek pronunciation is to be found.

---

[24] Cf. Bischoff, 'Das griechische Element', 256.

[25] Written Ϛ, Ϟ, ϡ with variations. The first is a medieval descendant of ancient digamma (Ϝ), closely resembling the medieval ligature stigma (for στ); the second is the ancestor of Latin *q*. The alphabet is given, for example, in a tract on finger-reckoning included in Bede's *De temporum ratione*: Charles W. Jones (ed.), *Bedae opera de temporibus*, Mediaeval Academy of America Publications 41 (Cambridge, Mass., 1943), 181. For a clear and accessible manuscript image, see Cologne, Dombibliothek, MS 103 (795 × 819), fol. 52r, available at http://www.ceec.uni-koeln.de/ (accessed 6 October 2011).

[26] Dáibhí Ó Cróinín, 'Mo Sinu maccu Min and the computus at Bangor', *Peritia* 1 (1982), 281–95, repr. in *idem*, *Early Irish history and chronology* (Dublin, 2003), 37–47: 41–6.

[27] Cf. *GOI* §27 on the convention of doubling vowels in Irish texts, however.

[28] Priscian's *Institutiones grammaticae* edited by Martin Hertz in Heinrich Keil, *Grammatici latini* (6 vols, Leipzig, 1857–80, repr. Hildesheim, 1961), vols 2–3. Priscian gives the examples Νεῖλος *Nilus* (II 24.16, 41.24, 44.17) and Μοῦσα *Musa* (II 27.21–2, 44.17), but also presents other possibilities for transliterating these digraphs (e.g. Καλλιόπεια *Calliopea*, II 24.17). On nasal clusters, see II 48.13–15: *Graeci tamen solent loco n ante γ uel κ uel χ positae hanc [g] ponere, ut* ἄγγελος, Λογγῖνος, ἄγκιστρον, Ἀγχίσης; *apud Latinos tamen seruatur n, ut Longinus, Anchises*. 'The Greeks moreover are wont to put this [letter, sc. g] instead of *n* before γ or κ or χ, as in ἄγγελος, Λογγῖνος, ἄγκιστρον, Ἀγχίσης; for Latin writers however, *n* is used, as in *Longinus, Anchises*'. Priscian also mentions Σφίγξ Σφιγγός *Sphinx Sphingis* at II 280.6.

The limitations of alphabet tables may be illustrated in the case of the *Liber Commonei*, a ninth-century manuscript of 18 folios, written in Wales, and now part of the composite manuscript Oxford, Bodleian Library, MS Auct. F. 4. 32.[29] The manuscript contains two collections of bilingual texts: excerpts from the Minor Prophets in Greek written in Greek script with a facing Latin text (ff 24r–28v17);[30] and lessons and canticles for the Easter vigil, here with the Latin text first and a facing Greek text transliterated (ff 19 and 28v18–36r).[31] One might assume that the alphabet table preceding these texts (f. 19) was written as a guide to pronouncing the Greek in Greek script and was a key for transliterating the second Greek text into Latin script. This can hardly have been so, however. The table contains some very idiosyncratic features, such as *ee* for ε (instead of η) and *h* for η. Other apparent slips are *c* for χ and *ph* for ψ. The inclusion of the redundant letters *koppa*, *digamma* (displaced to the end) and *sampi* point to its computistical origin. The same table cannot be the key to the transliterated Greek, which consistently reflects late pronunciation, as the opening of Genesis (f. 28v19–20) illustrates (note *i* for η, *e* for αι):

> *en archi̱ epoei̱sen otheos ton uranon ce̱ ti̱ngi̱n*
>
> ἐν ἀρχῇ ἐποίησεν ὁ θεὸς τὸν οὐρανὸν καὶ τὴν γῆν
>
> 'In the beginning God created heaven and the earth'.

I am not aware of any description or tabulation of medieval Greek pronunciation in any written sources of the period. So, how else could its knowledge have been disseminated? Ultimately, of course, any such knowledge must have derived from contact with native speakers. However, Greeks appear to have been very few and far between in the early medieval West. Bearing in mind the prestige Greek language and culture enjoyed, it seems remarkable that our sources do not record even the name of the 'certain learned Greek' who is said to have taught Mo Sinu. A rare example of a native Greek speaker active in the West and whose historical identity is beyond doubt is Theodore of Tarsus, abbot of Canterbury from 669. Bede, writing some 60 years later, claims that Theodore's pupils still spoke both Greek and Latin as well as their native tongue.[32] Even if any such fluency in

---

[29] Aidan Breen has argued that its exemplar had an Irish provenance, see Breen, 'The liturgical materials in MS Oxford, Bodleian Library, Auct. F. 4/32', *Archiv für Liturgiewissenschaft* 34 (1992), 121–53: especially 121–3, 127, 152–3. Images can be found at: http://image.ox.ac.uk/ (accessed 6 October 2011). For an introduction to the manuscript, see the facsimile edition: R.W. Hunt, *Saint Dunstan's classbook from Glastonbury*, Umbrae codicum occidentalium 4 (Amsterdam, 1961).

[30] Edited in Breen, 'The liturgical materials', 128–52.

[31] Edited in B. Fischer, 'Die Lesungen der römischen Ostervigil unter Gregor dem Großen', in B. Fischer and V. Fiala (eds), *Colligere fragmenta: Festschrift Alban Dold zum 70. Geburstag am 7. 7. 1952* (Beuron, 1952), 144–59, repr. in B. Fischer, *Beiträge zur Geschichte der Lateinischen Bibeltexte*, Vetus Latina: Aus der Geschichte der lateinischen Bibel 12 (Freiburg, 1986), 18–50.

[32] *Historia ecclesiastica* 4, 2.

the Greek language was not transmitted to subsequent generations,[33] it seems likely that Theodore taught at least some Greek, and doubtless with contemporary pronunciation. He may, therefore, be the most obvious source for an Insular knowledge of Byzantine pronunciation.

3. LATIN IN GREEK SCRIPT

Irish scribes sometimes employed Greek script where Latin script was normally used (for Latin and occasionally Irish text). We can explore whether this transliteration from Latin into Greek script reveals any evidence of late pronunciation. A well-known example is the Schaffhausen manuscript of Adomnán's *Vita Columbae*,[34] which contains, besides a Greek paternoster in Greek script (p. 137),[35] the Irish words *Corcu Réti* written as κορκυρετι (p. 47a) and the Latin explicit of book two written as φινιτυρ cηκυνδυc λιβερ (p. 103b). In the first case, the scribe Dorbéne's choice of τ to represent the sound [d] and ε (rather than η) for long [eː] in *Réti* shows a letter-by-letter transliteration dependent on Irish orthography.[36]

The Book of Armagh (TCD MS 52) contains many Latin words written in Greek script, including the entire Latin paternoster (f. 36ra):[37]

ΠΑτηρ νοcτερ κυι · εc · ιν καελίc | cκ̄ιφικητυρ · νωμεν · τυυμ | αδυενιατ · ρεγνυμ · τυυμ | φιατ · υολυντας · τυα · cικυτ | ιν καελω · ετ ιν τερρα · πανε̄| νοcτρυμ · κοτιδιανυμ · δα | νωβίc · ⊦οδιε · ετ · διμιττε | νωβίc · δεβιτα · νοcτρα · cικυτ | ετ · νωc διμιccιμυc · δεβιτω|ριβυc νοcτρίc · | ετ νή · πατια | ριc νώc ινδυκι ιντεμπτα | τιωνεμ · cεδ λιβερα · νόc · αμαλω.

Several features show that the transliteration bears little relation to Greek orthography. Greek has no digraph αε as written in καελίc (*caelīs*).[38] The *u* in *adueniat* is represented by Greek υ (/y/ > /i/), which never corresponded to the sound of Latin consonantal *u* (/w/ > /v/). Latin *hodie* has a Hellenistic *spiritus asper* symbol (⊦) for the letter *h*.[39] This is clearly a mechanical

---

[33] As Bischoff remarked; see 'Das griechische Element', 265.

[34] Stadtbibliothek, MS Generalia 1 (704 × 713). A.O. Anderson and M.O. Anderson (eds), *Adomnan's life of Columba* (London and Edinburgh, 1961), revised edition by M.O. Anderson, Oxford Medieval Texts (Oxford, 1991). Images are now available at: http://www. e-codices.ch (accessed 6 October 2011).

[35] The ability to copy a Greek text does not, however, tell us about the scribe's knowledge of the language or its pronunciation.

[36] I enclose phonetic transcription within square brackets [ ], except when using slashes // to note phonological contrasts; see *Handbook of the International Phonetic Association* (Cambridge, 1999), appendix 1, §6 (p. 160).

[37] See also the scribal colophons at ff 52va (assigned to 36a and badly misprinted at *Thes.* I, xiv) and 222va, the marginal headings (ηυανγελιων) κατα ματτηευμ and κατα μαρκυμ, and scattered individual words such as αμην (67vb, 68v, 102vb, 159ba), πατηρ (78vb), ευντες (67va), etc.

[38] The Latin sound could have been represented in other ways, either with αι for Classical /ai/ or η/ε for later /εː/.

[39] As described in Priscian, II 18.24 ff.

transliteration based on alphabet tables or similar sources, which tells us little about how Greek text in Greek script would have been read.

4. METHODOLOGY FOR IDENTIFYING GREEK WORDS

Before beginning to analyse the Greek words in Irish glossaries, we need first to consider the quality of our evidence, and how reliably the words in question can be identified.[40] Most, though not all, of the Greek words cited in the glossaries are marked *grece,* occasionally [*a nomine/verbo*] *greco.*[41] The accompanying Latin translation generally helps us to identify the Greek word intended.[42]

Some of these Greek words also occur as borrowings in Latin, the more common being ἀμνηστία *amnestia,* ἀντίχριστος *antichristos,* βασιλική *basilica,* γεωμετρία *geometrica* [*sic,* for *geometria*], γυμνασία *gimnasia,* ἐκκλησία *eclessia,* ἔκλειψις *eclipsis,* εὐφονία *eifonia,* κρίσις *crisis,* πλατεῖα *platea.*[43] Nonetheless, for present purposes, I count these as Greek words because they are explicitly marked as such in the texts, which in some cases show deeper understanding of the origins of the terms, referring to Greek etymologies or original senses not found in the Latin. So, ἀντίχριστος is etymologised as *contra Christum* (Y 101), γεωμετρία as *terrae mensura* (OM 478), γυμνασία as *nochtfrecorthid céill* 'naked exerciser' (OM 175),[44] εὐφονία as *bona uox* (OM 374), while OM 182 recognises the original meaning of *basilica* (βασιλική 'royal') in the explanation *tech ríg nime* 'house of the king of heaven' (supplying an additional Christian association). Latin words of Greek origin that are not identified as such are not included.

The orthography of some of the Greek words cited in Irish glossaries conforms perfectly to the conventional transliteration of Greek in Classical Latin, and these Greek words are therefore clearly identifiable: e.g. ἄποδος

---

[40] Many identifications were first made by Stokes and Meyer in their various diplomatic editions of the glossary texts. For bibliography, see Paul Russell, 'The sounds of a silence: the growth of Cormac's glossary', *CMCS* 15 (Summer, 1988), 1–30, and the Early Irish Glossaries Database.

[41] For some exceptions, see OM 90, 175, 212.

[42] The Irish headwords are often only loosely connected in sense to the words which etymologise them, to the extent that entries frequently resort to some additional explanation to concoct a semantic link between the two (see, for instance, the example of χεῖρες in OM 222, cited above). The headwords are therefore of limited value in establishing which Greek word is intended, in uncertain cases.

[43] I will generally cite Greek words in standard Greek orthography first, followed by the glossary form. The reader may consult the list of Greek words that follows for translations, references to printed editions, variants and further notes.

[44] Reflecting its derivation from γυμνός 'naked'. Latin *gymnasia* would refer to public schools in general. A more accurate translation of γυμνασία is found in a gloss on the same word in the St Gall Priscian: *frecor ceill nó frithgnom reliqua icidorus gymnasium reliqua in alio* 'applying one's mind or exertion, etc.; Isidore says *gymnasium,* etc. in another [book]' (Sg. 106b12 = Hofman 106b25 x in the online edition at: www.stgallpriscian.ie (accessed 6 October 2011)). The name Isidorus is invariably abbreviated *ic* in the St Gall glosses, the substitution of the Greek letter *c* (σ) for *s* possibly reflecting the importance of that author as a source for Greek vocabulary.

apodos, βία *bia*, γάλα *gala*, γελῶ *gelo*, γῆ *ge*, δεξιά *dexia*, δέρω *dero*, δῆλον *delon*. In other cases, the identification of Greek words requires some degree of interpretation, involving the following:

1. Consistent non-Classical transliteration
2. Misreadings of Greek script
3a. Discrepancies in endings: absence of final *-n* or *-s*
3b. Discrepancies in endings: final *-n* added, or substituted for final *-s*
4. Ambiguous pairs
5. Words wrongly labelled as Greek
6. Other considerations

(1) Consistent non-Classical transliteration
Many entries depart from Classical transliteration in reasonably consistent ways. For example (as already mentioned), *e* is often written for αι; *i* for ει and ƒ; *t* for θ; *c* for χ; and the initial aspirate *h* is always omitted. Given that these patterns are quite regular, there should be no objection to identifying words such as αἷμα 'blood' and ὕλη 'forest' from glossary forms *ema* and *ile*, even if these at first sight appear strange or corrupt beside the Classical Latin transliterations *haima* and *hȳlē*. (These patterns are discussed in further detail below.)

(2) Misreadings of Greek script
Some departures would seem to derive from errors in reading Greek script. The letter ψ is certainly confused for φ in the case of δίψα *difa* 'thirst',[45] and majuscule Greek c (σ) as Latin *c* in σάρος *caros* 'broom'. Majuscule τ may be confused as г in ἀρετή *arge* 'excellence', while the converse may help explain ἀργίαι *artiloi* 'feasts'. The form *ipe* for πίε 'drink' in OM 699 very likely arose from a misreading of Greek majuscules πι as ιπ.[46] Another cluster, νт, may have been misread as м in φαντάζω *fimazo* 'I make visible, appear', and majuscule ΔΙ as м in πεδίον *foeman* 'plain';[47] θαῦμα *dusma* 'marvel' may reflect a misreading of majuscule γ as c (σ).

The letter ξ (for [ks], consistent in ancient, medieval and modern Greek) is variously transliterated with *x* (δεξιά *dexia* 'right'), with *c* (ξένος *cenos* 'guest'), with *s* (ξύλον *silon* 'wood')[48] or is absent entirely (φάραγξ *faran* 'chasm'). This may be accounted for by misreadings of letter forms, particularly c (σ) for ξ, possibly influenced by confusion arising from the simplification of the consonant cluster [ks] in spoken Latin.[49]

---

[45] Noted in Eoin Mac Neill, 'De origine scoticae linguae', *Ériu* 11 (1930–32), 112–29: 119, and Russell, '*Graece . . . latine*', 409.

[46] This error must have been already present in the source for the entry, given that the Irish etymology depends on it (in this case for the headword *ibas* in OM 699).

[47] Russell, '*Graece . . . latine*', 409.

[48] The form *fulas* (φύλαξ 'guard'?) might also be included here; see below under (4).

[49] See Patrick Sims-Williams, 'The additional letters of the Ogam alphabet', *CMCS* 23 (Summer, 1992), 29–75: 66–7.

(3a) Discrepancies in endings: absence of final -n or -s
Discrepancies between glossary forms and expected Greek forms indicated by the Latin translations commonly occur in terminations. A final *-n* or *-s* is often absent from the glossary forms: αἵρεσις *eresi* (translated *electio*), βῆμα ἀνδρός *bemandro* (*passus*, sc. *hominis*), βίος *bia* (*vita*), δορκας *dorco* (*videns*), κᾶλον *kalo* (*lignum*), οἰνος *eno* (*uinum*), ὅλον *olo* (*totum*). Some of these might be interpreted as Greek datives (αἱρέσει, βίῳ, κᾶλῳ, οἰνῳ, ὅλῳ).[50] However, the dative of δορκάς *dorco* is rather δορκάδι, and βῆμα ἀνδρός *bemandro* 'step of a man' reflects either a scribal omission or a pseudo-dative ending. In the entry OM 402 *Ena a uino eno enim grece uinum*...('*Ena* [vessels] from οἰνος in Greek, wine...'), the apparent dative form *eno* (*cf.* οἰνῳ, for expected οἰνος corresponding to *uinum*) may be accounted for by a scribal omission of final *-s* under the influence of the preceding words *ena* and *uino*.[51]

A genuine oblique Greek form occurs in the curious entry *Irsan* 628.21 *Ars apothoearthes .i. a uirtúti, unde aries dicitur .i. uirtus* ('*Ars* [art], ἀπὸ τῆς ἀρετῆς [from the word ἀρετή/excellence], i.e. from goodness, from which *aries* is said, i.e. goodness').[52] Here the genitive ἀρετῆς is conditioned by the preposition ἀπὸ 'from' in the Greek etymological formula ἀπὸ τοῦ/τῆς 'from the [word]'. The source of this glossary entry is Isidore, *Etym.* 1.1.2: *Ars*...ἀπὸ τῆς ἀρετῆς, *id est a virtute, quam scientiam vocaverunt* ('And an art (*ars,* gen. *artis*)...[is derived] from the word ἀρετή, that is "virtue", as they termed knowledge').[53]

(3b) Discrepancies in endings: final -n added, or substituted for final -s
In other entries, final *-n* occurs where the expected Greek words would end in a vowel or *-s*: βασιλεύς *basilion* (*rex*), βουλή *bolin* (*consilium*), γοργός *gargon* (*ferox*), γλυκύ *glicin* (*dulce*), δίαιτα *deitan* (*obseruatio legis et uitae*),

---

[50] Two examples, κᾶλον *kalo* and ὅλον *olo*, might be counted as evidence for loss of final *-n*, which is reflected in Byzantine Greek except in restricted sets of words: see Geoffrey Horrocks, *Greek: a history of the language and its speakers* (2nd edn, Chichester, 2010), 274–5. This does not explain the absence of final *-s*, however, and I regard the two phenomena as closely related.

[51] The spelling of the Greek word here may also have been adapted to the glossary headword.

[52] The word *aries* in the second part of the entry appears to be the author's attempt to infer the Greek nom. form (*recte* ἀρετή) from gen. ἀρετῆς on analogy with the Latin word *aries* 'ram', gen. *arietis*. Alternatively, if the Latin word *aries* 'ram' is meant here, its association with *virtus* 'goodness', a word derived from *vir* 'man', could be explained by reference to Isidore, *Etymologies* 12.1.11 (as suggested in Russell, '*Graece...latine*', 409–10): *Aries*... ἀπὸ τοῦ Ἄρεος, *id est a Marte, vocatus: unde apud nos in gregibus masculi mares dicuntur* ('The ram (*aries*) is...named after the word Ἄρης, that is after "Mars"—whence we call the males in the flock 'males' (*mas,* gen. *maris*)'). W.M. Lindsay (ed.), *Isidori Hispalensis episcopi etymologiarum sive originum libri XX* (2 vols, Oxford, 1911, repr. 1971), hereafter *Etym.*; translated in Stephen A. Barney, W.J. Lewis, J.A. Beach and Oliver Berghof, *The etymologies of Isidore of Seville* (Cambridge, 2006).

[53] I have counted 63 instances of the ἀπὸ τοῦ/τῆς formula in the *Etymologies*. This use of the article is paralleled in some Irish etymological formulas, e.g. Y 10 *Acais .i. a causa .i. ōn chāis* ('*Accais* [cause] from *causa*, i.e. from the [word] cause'). On citation formulas, see Liam Breatnach, 'On the citation of words and a use of the neuter article in Old Irish', *Ériu* 41 (1990), 95–101.

δράμε *dramun* (*curre*), θρῆνος *trenon* (*lamentatio*), κλάσις *clasin* (*diuisio*). In most of these examples, the *-n* ending would be compatible with an accusative form of the word; not, however, in the case of *dramun* (*curre*), if this glossary form represents the verb δράμε. In some cases, the Greek word may have been extracted from a textual source where it was originally cited in its accusative case, afterwards confused as a nominative. For example, Isidore uses the accusative of ἄνθρωπος, as the object of the verb *appello* (*Etym.* 11.1.5): *Graeci autem hominem* ἄνθρωπον *appellaverunt* ('The Greeks called the human being ἄνθρωπος'). However, I have not found any textual sources which might have supplied the accusative forms of the words cited above. Moreover, the accusatives in question are restricted to Greek first and second declension nouns: the accusative singular *-a* termination for consonant stems is represented in one glossary entry only.[54] This suggests that the the *-n* termination in these cases may have arisen from scribal error, possibly hypercorrection of Greek endings to supply the characteristically Greek termination *-n*, not found in Latin case endings.

In the cases of discrepancies outlined under (3a) and (3b) above, it would appear that either the Greek form or its Latin translation has become corrupt in the textual tradition. Given our general picture of Greek in the early medieval West, we may assume that most copyists understood far less Greek than Latin, and therefore for any Greek–Latin pair we might expect the Latin element to be the more reliable of the two.

(4) Ambiguous pairs
In other examples, discrepancies extend beyond grammatical terminations. In OM 569, for example, the Greek word cited as *fulas* is translated with Latin *custodia* 'guarding'. The Latin word suggests that Greek φυλακή 'guarding' was intended. On the other hand, the glossary form is closer to φύλαξ 'guard, sentry', in which case the Latin form may be an error for *custos* 'guard'. The discrepancy could have resulted from a corruption in the textual transmission of either the Greek or the Latin word, and there is little justification for preferring one over the other. Accordingly, I list such cases as an ambiguous pair (e.g. φυλακή/φύλαξ), whose common element (φυλα- in this case) may be counted as useful evidence nonetheless.[55]

(5) Words wrongly labelled as Greek
Some 14 words labelled as Greek are not Greek at all. A few are Latin words for which the glossary compilers were led astray by Isidore or

---

[54] Isidore cites αἴξ 'goat' in its accusative case at *Etym.* 13.16.5:...*quam Graeci* αἶγα *nuncupant* ('which the Greeks call αἴξ'). This is the source of OM 375, which treats the Greek word as though it were a Latin first-declension nominative singular, and gives it a hypercorrect accusative ending *egam*.

[55] An analysis for each pair is given in the notes to the list of Greek words below.

through a misunderstanding of his text: *baia* 'bay' OM 116;[56] *barones* '(strong) men' OM 124, Y 154;[57] *gauata* 'dish' OM 603, *Irsan* 631.211.[58] Other Latin words were assumed to be Greek perhaps because they were unfamiliar to the glossary compilers or appeared to be derived from Greek words: *abgitorium* 'alphabet' OM 1;[59] *boccones* 'dunces' OM 162;[60] *compos* 'in control' OM 234; *elbum* 'bay coloured' OM 731;[61] *erciscunda* [*herciscunda*] 'division of inheritance' OM 415;[62] *lurcon* [*lurcho*] 'glutton' OM 780, *Loman* 622.32;[63] *merulus* 'blackbird' Y 890;[64] *merum* 'pure' OM 393.[65]

Three words in Y/YAdd described as Greek are in fact Hebrew in origin.[66] These words are correctly identified as Hebrew in OM, indicating that the error arose within the glossaries' textual tradition: *cadeis* (*sanctum*) Y 291,[67] *cinod* (*lamentatio*) Y 232;[68] *faudus* (*cadens*) YAdd 616.[69]

---

[56] The entry cites Isidore, *Etym.* 14.8.40, who says that this word has a genitive *baias* (comparing Old Latin *familia familias*), which the glossary compiler apparently took to be Greek declension.

[57] Citing Isidore, *Etym.* 9.4.30–31, who wrongly classifies this word as Greek (deriving it from βαρύς 'heavy').

[58] Based on a misunderstanding of Isidore, *Etym.* 20.4.11–12: *Gauata, quia cauata, G pro C littera posita. Hinc et conca; sed illa cauata, ista concaua: sic et Graeci haec nuncupant.* ('*Gavata* (i.e. *gabata*, a kind of dish), because it is "hollowed out" (*cavare*, ppl. *cavatus*), with *g* put for the letter *c*. Likewise also mussel-shell (*conca*, i.e. *concha*); but the former is "hollowed-out", the latter is "hollow": the Greeks also make this distinction'.) The final phrase (*Graeci haec nuncupant*) was taken to mean that the Greeks coined the words *gauata* and *conca*.

[59] Classical Latin *abecedarium* is clearly formed from the names of the first letters of the Latin alphabet. Its Hiberno-Latin derivative *abgitorium* is less transparent, however, and it may be that it was here associated with the sequence of letters at the start of the Greek alphabet: α, β, γ. (On the entry headword *abgiter*, see Brian Ó Cuív, 'Irish words for "alphabet"', *Ériu* 31 (1980), 100–10.)

[60] Citing Isidore, *Etym.* 10.30, where the word is not described as Greek.

[61] Cf. Isidore, *Etym.* 9.27.7; *elbum* is probably a late form of *helvum*. Isidore does not refer to the word as Greek.

[62] Cf. Isidore, *Etym.* 5.25.9–10 (not referred to as Greek).

[63] *Loman* refers to the glossary preceding *Irsan* (*CIH* 622.13–627.35) and textually closely related to the second half of YAdd. This entry, to my knowledge, is the only reference to Greek in the glossary.

[64] Cf. Isidore, *Etym.* 12.7.69; a related entry in *Irsan* 633.16 makes no reference to Greek.

[65] This word is mentioned several times in Isidore (*Etym.* 3.42.4, 5.30.15, 13.1.6, 20.3.3), who does not describe it as Greek. Bischoff noted the same error in the Munich Computus ('Das griechische Element', 250); see Immo Warntjes (ed.), *The Munich Computus: text and translation. Irish computistics between Isidore of Seville and the Venerable Bede and its reception in Carolingian times* (Stuttgart, 2010), VIII.27–28 (p. 24).

[66] For discussion of Hebrew entries, see Pádraic Moran, 'Hebrew in early Irish glossaries', *CMCS* 60 (Winter, 2010), 1–21.

[67] Cf. OM 193, *Loman* 619.19.

[68] Cf. OM 238.

[69] YAdd's *faudus grece cadens* corresponds to the better text in OM 567 *faldas cadens germen* ('*faldas*, a falling seed'), citing Jerome, *Hebrew names* 6.17 [Paul de Lagarde (ed.) *Onomastica Sacra* (2nd edn, Göttingen, 1887; repr. Hildesheim, 1966), 1–81]. The OM entry does not identify the language of *faldas*. Stokes in his edition of OM curiously expanded *germ̄* as *germanice*; the same abbreviated word was confused as *grece* in YAdd.

(6) Other considerations

Other glossary forms show variance from the Greek word indicated by the Latin translation in ways not described above. Where the difference is confined to one letter or syllable, I include tentative identifications of Greek words in the list below, signalled with a question mark. The corrupt text *oc* (for στερρòν) in *Irsan* 633.15 is hardly worth including,[70] while the strange form *omoneusion* (*disimilis substantiae*) in *Irsan* 633.252 may reflect guesswork following on from the previous two entries.[71] There remain 37 distinct words cited as Greek (occurring in 48 entries) which have yet to be identified, or where textual corruption makes their identification unreliable.[72]

5. List of Greek words

The list below presents the Greek words identified in the glossaries, with manuscript forms, translations, translations supplied in the texts (almost all in Latin), references to printed editions and variants.[73] Where an entry is substantially the same in two or more glossaries, references are separated with commas; where distinct entries are in question, references are separated with semi-colons.

For convenient reference, I cite Greek words in standard Greek orthography in addition to the glossary forms. This is not to imply that such neatly restored forms stand behind the manuscript tradition. For one thing, any contemporary Greek script would have been in majuscule letters and lacked marks of aspiration or accentuation.[74] Indeed, Russell has pointed out that some of the glossary etymologies depend on Greek forms which, if emended, would obscure the sense of the entries.[75]

1. ἀγκών *andon* 'elbow', *cubitus* OM 112
2. αἶγα *ega* 'goat', *capra* OM 375, *éga* YAdd 542; *ego* YAdd 561

---

[70] The Greek word is identifiable from the entry's clear use of Isidore, *Etym.* 10.170.

[71] The previous entries cite ὁμοούσιον *omousion* 'of one substance' and ὁμοιούσιον *omoeusion* 'of similar substance'; the word expected here would be ἀνομοιούσιον.

[72] OM 17, OM 20, OM 94, OM 135, OM 171, OM 219 (= Y 226, *Irsan* 629.18), OM 237, OM 252, OM 258, OM 284 (=*Irsan* 629.28a), OM 314, OM 344 (=*Irsan* 629.36), OM 376, OM 398, OM 488, OM 494, OM 555, OM 566 (=*Irsan* 631.16a), OM 585, OM 589, OM 609, OM 625 (= YAdd 703), OM 630, OM 635 (=*Irsan* 628.12), OM 652, OM 674, OM 698 (=*Irsan* 631.30a), OM 718 (= YAdd 766), OM 728 (=*Irsan* 627.36), OM 747 (= YAdd 764), OM 812, *Irsan* 628.06, *Irsan* 628.23b, *Irsan* 629.12, *Irsan* 631.11, *Irsan* 631.14, YAdd 482.

[73] The entries ἀπò τῆς ἀρετῆς and ἀπò τοῦ καίεσθαι are listed under ἀρετῆς and καίεσθαι, respectively. Some editorial corrections are given in square brackets. A detailed textual commentary for each glossary entry is currently in preparation.

[74] Walter Berschin (*Greek letters*, 14) has criticised the editorial practice of silently correcting Greek forms and substituting Greek for Latin script, and in the process 'trampling the textual tradition' and obscuring our understanding of the transmission of Greek in the West. See also Bischoff on W.M. Lindsay's edition of Isidore's *Etymologies* (a particularly important source in the transmission of Greek vocabulary), in Bernhard Bischoff, 'Bannita: 1. Syllaba, 2. Littera', in J.J. O'Meara and B. Naumann (eds), *Latin script and letters AD 400–900: Festschrift presented to Ludwig Bieler on the occasion of his 70th birthday* (Leiden, 1976), 243–7.

[75] Russell, '*Graece . . . latine*', 410

3. αἷμα *ema* 'blood', *sanguis* OM 390, YAdd 502; YAdd 574
4. αἵρεσις *eresi* 'choice', *electio* OM 419
5. αἵρω *ero* 'I lift', *tollo* OM 412; *eræ* OM 423
6. αἵρεις *eris* 'you (sing.) lift', *tollis* OM 412
7. αἵρετε *erate* 'you (pl.) lift', *tollite* OM 412
8. αἰών *eoas* 'age', *aetas* OM 28, YAdd 99
9. ἄκανθαι, βάτος *cantabato* 'thorns, bramble bush', *sentes* OM 203, *cantabatoi Irsan* 629.25[76]
10. ἄκεσις *icessia* 'cure', *salus* OM 701, *ecesia* YAdd 767, *ecessia* DDC 615.32
11. ἄκρος? *arcos* 'topmost, outstanding', *excelsus* Y 65, DDC 606.6[77]
12. ἅμμα? *ema* 'a tie', *iuga manum* YAdd 574; *iugum Irsan* 630.8b
13. ἀμνηστία *amnestia* 'forgetting', *obliuio peccati* OM 97, *amnestio, uile-dílgend* YAdd 34
14. ἀνάγαιον/ἀνώγεον? *anyon* 'dining room', *dapes* 'feasts' Y 31, *aninos* DDC 605.38–41[78]
15. ἄνεμος *animos* 'wind', *ventus vel anima* OM 88
16. ἄνθρωπος *antropus* 'man', *nomen hominis* OM 86
17. ἀντί *ante* 'against', *contra* YAdd 101
18. ἀντίχριστος *antichristos* 'Antichrist', *contra Christos* YAdd 101
19. ἄνω *anae* 'upwards', *sursum* OM 86
20. ἄποδος *apodos* 'give back [imperative 2 sing.]', *redde* OM 49
21. ἀπολλύεις *apolis* 'you (sing.) destroy', *perdis* OM 90
22. ἀπορία *aporea* 'difficulty', *egestas* OM 51
23. ἀργίαι? *artiloi* 'holidays', *feriae* OM 60
24. ἀρέσῃ? *assa* 'let it please', *placeat* OM 61
25. ἀρετή? *arge* 'excellence', *indolis* OM 53, *airge Irsan* 628.23a
26. (ἀπὸ τῆς) ἀρετῆς '(from the word) excellence [gen. sing.]', *apothoeartes, uirtus Irsan* 628.21
27. ἀφορισμός *forismos* 'aphorism', *sermo breuis* OM 578
28. ἀχῶ *ach* 'I cry out', *doleo* YAdd 95, *acho, doled* DDC 605.33
29. ἄχος *acho* 'distress', *tristis Irsan* 628.19
30. βάλανος *ballanus* 'acorn', *glandis* DDC 608.14, *balloinis* YAdd 167, *balanin, grande* OM 119
31. βασιλεύς *basilion* 'king', *rex* OM 128
32. βασιλική *basilica* 'royal (house)', *eclesia...tech ríg nime* OM 182, DDC 608.27, *eclesia .i. tech* DDC 606.31
33. βῆμα ἀνδρός 'step of a man' *bemandro, pasus* OM 140
34. βία *bia* 'force', *uis* OM 152
35. βιοθάνατος *bidbthonatus* 'violent death', *bis mortis* OM 147, *bitheumatus* YAdd 152, *bitheumatus, bis mortuus* DDC 608.9

---

[76] These two Greek words occur as synonyms for *sentes* in Charisius, 33.5 [Karl Barwick (ed.), *Flavii Sosipatrii Charisii artis grammaticae libri V* (Leipzig, 1925, repr. 1964)].

[77] Cf. the St Gall gloss *.i. huasal-gabáltaid; arcon enim grece excelsus dicitur* (Sg. 106b12 = Hofman 106b25 x).

[78] These Greek forms are variants of the same word; see Russell, '*Graece...latine*', 409.

36. βίος *bia* 'life', *vita* YAdd 176, *Irsan* 628.36
37. βολή *bole* 'a throw', *iaculum* OM 172
38. βουλή *bolin* 'advice', *consilium* YAdd 169, *Irsan* 629.2
39. βρατυν *brathin, lamminas* [*lamina*] OM 126[79]
40. βρήτωρ [Ϝρήτωρ] *briathor* 'word', *insce* OM 160[80]
41. βραχύτης? *botus* 'narrowness', *angustia* YAdd 175, *bothus Irsan* 628.34
42. βρόγχος *brancos* 'throat', *guttur* OM 122, YAdd 177, *brancus* DDC 608.21-2
43. βροχετός *brecetos* 'rain', *pluuia* OM 143
44. γαῖσος? *gáe* 'javelin', *hasta* OM 610
45. γάλα *gala* 'milk', *lac* Y 683
46. γάμος *gamos* 'wedding', *mulieres* Y 672
47. γέεννα *ganna* 'Gehenna', *loca aspera sub terra* OM 616[81]
48. γελῶ *aggelo* 'I laugh', *ridio* [*rideo*] OM 632, *ridieo Irsan* 628.7
49. γενειάς *genos* 'beard', *barba* OM 645
50. γενηθήτω/ἐγένετο *genete* 'let therve be/it happened', *fiat nó factum* OM 658[82]
51. γεννῶμαι *gennome* 'I am begotten', *nascor* OM 217
52. γεωμετρία *geometrica* [*geometria*] 'land-surveying, geometry', *terrae mensura* OM 478
53. γῆ *ge* 'earth', *terra* OM 478, YAdd 516
54. γλαυκόν? *gelon* 'clear', *album* OM 690, *Irsan* 631.27
55. γλυκύ *glicin* 'sweet', *duilci* [*dulce*] OM 691, *Irsan* 631.28
56. γνῶσις *gnosia* 'knowledge', *scientia* OM 361, *scientiæ* YAdd 543; *fis* OM 465
57. γομφῶν/γομφῶ? *gobio* 'fabricating/I fabricate', *fabricans* OM 665; YAdd 713; *gobio, orno Irsan* 631.33a[83]
58. γοργός *gargon* 'fierce', *ferox* OM 621, YAdd 707
59. γράφειν *grafini* 'to write', *scribere* OM 624
60. Γρύνειος *Griníus* 'Grynius [Apollo]', *Apollo* OM 697
61. γυμνασία *gimnasia* 'exercises', *battualia* OM 175

---

[79] A Greek ghost word derived from a corrupt passage of Isidore (*Etym.* 16.18.2): *Brattea dicitur tenuissima lamina, ἀπὸ τοῦ βρεμετοῦ, qui est ὀνοματοποιεία crepitandi, ἢ ἀπὸ τοῦ †βρατυν† lamina* ('The thinnest sheets are called gold leaf (*brattea*, i.e. *bractea*) from the term βρεμετον, which is onomatopoeic for "clanging", or from βρατυν, sheets').

[80] Stokes noted ('O'Mulconry's Glossary' [see OM under Sigla below], p. 241, n. 9): 'An Aeolic *βρήτρα seems intended; cf. El[ean] Ϝρήτρα'. The attested Aeolic Ϝρήωρ 'orator' (Attic-Ionic ῥήτωρ) provides a closer formal match. The source here appears to be Priscian II, 18.5–7; see Moran, 'Greek in early medieval Ireland', for discussion.

[81] Originally a Hebrew placename (*Ge Hinnom*). The glossary form may reflect its rendering into Greek or Latin, though the entry cites it explicitly as a Greek word.

[82] It is not clear from the form *genete* whether γενηθήτω (*fiat*) or ἐγένετο (*factum*) was intended.

[83] The form *gobio* occurs in all three texts, and the *Irsan* translation *orno* suggests that γομφῶ is intended; against this, OM and YAdd agree in their translation *fabricans*, corresponding to γομφῶν.

62. γυνή *gene* 'woman', *mulier* OM 638, *Irsan* 628.14; OM 639, *Irsan* 628.15; *gen* OM 640, *gen Irsan* 628.17; *gen* OM 720, *gune* YAdd 773

63. γύψος? *gissum* 'gypsum', *efficisum* OM 649

64. δειλιῶ/δειλία *dilos* 'I fear/fear [noun]', *formido* OM 347; *Irsan* 629.39[84]

65. δεξιά *dexia* 'right', *dextera* OM 307

66. δίλοφον *dilofón* 'double-crested',[85] *formido* OM 347; *Irsan* 629.39

67. δορκάς *dorco* 'deer',[86] *uidens* OM 346, *dorca Irsan* 629.38

68. δέρω *dero* 'I beat, flay', *cedo* [*caedo*] OM 306; *cado* YAdd 467, *cado Irsan* 630.41b, *cado* DDC 613.34

69. δῆλον *delon* 'manifest', *manifestum* OM 301

70. δίαιτα *deitan* 'mode of living', *obseruatio legis et uitae* OM 297

71. δίκαιος *deceos* 'just', *iustus* OM 303

72. δίψα *difa* 'thirst', *sitis* OM 310

73. δοκῶ *docho* 'I think', *puto* OM 317, YAdd 463, *docha Irsan* 629.35

74. δορυφόρος *doriforas* 'spear-bearing, attendant', *satilitess* [*satellites*] OM 318

75. δουλεύω *duleo* 'I serve', *seruio* OM 324, *duilio* YAdd 469

76. δράμε *dramun* 'run [imperative 2 sing.]', *cuirre* [*curre*] OM 295

77. δύναμις *dún amnis* 'power', *uires* OM 320a

78. δός *dós* 'give [imperative 2 sing.]', *tinnscra* OM 323, *do Irsan* 630.1

79. ἔθνος *ethnae* 'nation', *genus* [*gens*] OM 468

80. εἶδος *idos* 'shape, form', *forma* Y 751; *enos, species,* OM 403

81. εἰπέ *epe* 'say [imperative 2 sing.]', *dic* OM 408

82. ἐκκλησία *eclesia* 'assembly, Christian church', *conuocatio* OM 98, DDC 620.32–3; OM 360

83. ἔκλειψις *eclipsis* 'loss', *mors* OM 353, YAdd 550

84. ἔλαιον *elon* 'oil', *oleum* OM 378, *Irsan* 630.24

85. ἐλάφεια *elifia* 'doe', *ceruina* OM 385

86. ἐλεήμων *elimon* 'pitiful, merciful', *misericordia* OM 378

87. ἔλεος *elis* 'pity, mercy', *miseria Irsan* 630.18

88. ἐλύω *eluo* 'I roll around, wrap up', *desero* YAdd 557, *Irsan* 630.23, *elbo* OM 377[87]

89. ἐνθύμημα *entimema* 'argument, consideration', *mentis intentio* OM 729, YAdd 768

---

[84] The translation *formido* is ambiguously a noun or a verb; the form *dilos* does not correspond exactly to either Greek alternative.

[85] The misinterpretation here seems based on Eriugena, *Adnotationes in Marcianum*, 71 [edited by Cora E. Lutz, *Iohannis Scotti Annotationes in Marcianum*, Medieval Academy of America Publications 34 (Cambridge, Mass., 1939)].

[86] The translation *videns* would suggest a Greek word such as δερκόμενος 'seeing'. However, this entry seems to be based on a remark about *crepae* 'wild goats' in Isidore, *Etym.* 12.1.15: *...quae Graeci pro eo quod acuiissime videant, id est* ὀξυδερκέστερον, δορκάς *appellauerunt* ('which the Greeks call δορκάς (properly in Greek, "deer") because they can see very keenly, that is ὀξυδερκέστερον ("rather sharp-sightedly")').

[87] If this is the Greek word intended, its relevance is not clear. The glossary headword *elúd* 'evasion' indicates that *desero* is the verb 'I leave, desert' (and not the verb 'I sow').

90. ἐντός *endaos* 'within', *intus* OM 46
91. ἐπαρκής? *bargos, saturitas* YAdd 172, *Irsan* 629.10[88]
92. ἐπί *epi* 'over', *super* OM 407
93. ἐπίσκοπος *espoc* 'overseer, bishop', *fordeicsid* OM 405
94. ἔργα *erga* 'works', *opera* OM 413
95. ἔρις/ἐρίζειν *erison* 'strife/to struggle', *certamen* OM 419[89]
96. ἑταίρα *etera* 'courtesan', *meretrix* OM 457
97. εὖ *eu* 'well', *bonum* OM 361, *eo* YAdd 543; *eu* Y 526; *eo* YAdd 546; *eo* Irsan 630.20; *eo rectum uel bonum* OM 388
98. εὐφονία *eifonia* 'well-sounding', *bona vox* OM 374
99. ζόφος? *zibos* 'darkness', *niger* YAdd 479
100. ἡγεμών *egemon* 'leader', *dux* OM 375
101. θαῦμα? *dusma* 'marvel', *mirabilis* YAdd 501
102. θεῶμαι/θεωρῶ? *teomoro* 'I view', *conspicio* Y 1212[90]
103. θήκη *tíag* 'box, chest', *custodia* YAdd 1266
104. θρῆνος *trenon* 'lamenting', *lamentatio* OM 874
105. θυγάτηρ? *der* 'daughter', *filia uel uirgo* Y 79
106. Ἴακχος *iachis* 'Iacchus [Dionysus], a cry to Bacchus', *clamor* OM 368
107. ἱερεύς *eros* 'priest', *sacerdos* OM 409
108. ἱκεσίαι *icessia* 'prayers', *preces* OM 351
109. ἰχθύς *icties* 'fish', *pisis* [*piscis*] OM 706
110. κάδος *cados* 'pitcher', *uas uiní* OM 249
111. καί *cae* 'and', 7 [*et/ocus*] OM 213
112. καθ' [ὅλον] *catho* 'concerning [the whole]', *uniuersalis* OM 210, *cato* YAdd 223
113. καθαίρω *cathero* 'I cleanse', *purgo* OM 611, YAdd 705, DDC 615.9
114. (ἀπὸ τοῦ) καίεσθαι *apatoi catesta* '(from the word) to blaze' OM 211[91]
115. κακόν *cacon* 'bad', *malum* YAdd 357; *caca* OM 607
116. καλῶ *cal* 'I call', *uocacio* [*uocatio*]...*uoco* OM 288; *uoca* OM 693, *kal, uoco* Irsan 631.32
117. κᾶλον *kalo* 'wood', *lignum* OM 195; *calon* YAdd 344
118. καλάποδες/καλόποδια *cal poda* 'shoemaker's lasts', *bonus pes uel pedess* YAdd 354, *peis* Irsan 629.21[92]
119. καλός *cal* 'beautiful', *bonus* YAdd 354

---

[88] This is the only example I have found which might potentially be counted as aphaeresis (loss of unstressed initial vowels in hiatus), a feature particularly of Byzantine Greek. Assuming the identification ἐπαρκής is correct, we would still need to examine the context in the source for this word, which I have not been able to discover.

[89] The noun ἔρις would match the sense of *certamen*; the form *erison* suggests the verbal infinitive ἐρίζειν.

[90] The glossary form does not correspond exactly to either alternative.

[91] The Greek phrase is untranslated in this entry. The source is Isidore, *Etym.* 12.2.38.

[92] On this mistranslation, see Russell, '*Graece...latine*', 415.

120. κίκι/κηκίς *cich* 'castor oil/juice', *luibh asa táet as* 'a plant from which milk comes' OM 221, *cichis* YAdd 227, *cichis* DDC 610.37

121. κίνδυνος *cindo* 'danger', *periculum* OM 227

122. κινεῖν? *cillín* 'to move', *mouere* Irsan 629.20

123. κλάσις *clasin* 'breaking', *diuisio* Irsan 629.23a, *claisin* YAdd 356

124. κλῆρος *cleros* 'lot', *sors* OM 216, *cors* Irsan 629.32

125. κονιορτός *coniortos* 'dust', *puluis* OM 240

126. κρινόμενον/κρῖνον μοι *crinimenon* 'matter to be decided/judge me', *iudiciale* Irsan 629.15, *crimenono, iudice* YAdd 350[93]

127. κρίσις *crisis* 'dispute, judgement', *iudicium* OM 229; OM 664, Irsan 631.37

128. κύκλος *ciculos* 'circle', *orbis* Y 264

129. κυλλός *cillus* 'maimed', *unius manus* OM 633, *cillo* Irsan 628.8; OM 654, YAdd 702, *cillos* DDC 615.6a[94]

130. λάβε *labe* 'take [imperative 2 sing.]', *accipe* OM 633, *laba, capacitas* Irsan 628.8–10

131. λίθος *lidos* 'stone', *lapis* Y 810

132. λόγος *logo* 'speaking, discourse', *sermo* YAdd 561

133. λόγχη? *lagon* 'lance', *hasta* OM 781

134. μάθε *matha* 'learn [imperative 2 sing.]', *disce* OM 665

135. μῆλον *mellon* 'apple', *rotundum* OM 811

136. μόνον *monon* 'single', *unius* OM 639, *monoy* Irsan 628.15

137. μόνος *monus* 'alone', *unus* Y 503

138. νῆσος *nesos* 'island', *insola* OM 734; *nesin* OM 829, *nessin* Irsan 633.12

139. νοῶ *noo* 'I perceive, think', *intelligo* OM 665

140. Νυκτέλιος *NYKTHΛHC* '(Bacchus) Nyctelius', *Bachus* OM 368

141. νωθής? *naus* 'lazy', *piger* OM 827, Irsan 633.8–9.

142. ξένος *cenos* 'stranger, guest', *hospes* OM 560

143. ξύλον *silon* 'wood', *lingnum* [*lignum*] OM 858

144. οἰκοδομή *ecci dome* 'house, building', *aedificium* OM 32, *ecdoe* YAdd 84, *écdoé* DDC 605.34

145. οἶνος *eno* 'wine', *uinum* OM 402

146. ὅλον *olo* 'whole', *totum* OM 381

147. ὁμοιούσιον *omoeusion* 'of similar substance', *similis substantiae* Irsan 633.25a

148. ὁμοούσιον *omousion* 'of same substance', *unius substantiae* Irsan 633.24b

149. οὐκ *ac* 'not', *nego* YAdd 96, *aco* Irsan 628.20

150. πατήρ *pater* 'father', *abba ebraice...genitor latine* OM 2

151. πεδίον? *foeman* 'plain', *campus* OM 514, YAdd 632, Irsan 630.37

---

[93] Russell suggested that the YAdd form *crimenono* and the imperative *iudice* suggest κρῖνον μοι 'judge me', a phrase found in the Cyrillus glossary ('*Graece...latine*', 412). Alternatively, the *Irsan* form *crinimenon* and translation *iudiciale* are closer to the rhetorical term κρινόμενον 'matter to be judged'.

[94] See Russell, '*Graece...latine*', 414–15; Herren, 'The study of Greek', 522.

152. πέδον *pedon* 'ground', *breuis sit pedibus* OM 154
153. πίε *ipe* 'drink [imperative 2 sing.]', *bibe* OM 699
154. πλατεῖα *platea* 'broad', [*a*] *latitudine* OM 121
155. πλοκή *ploché* 'interwoven', *copulatio* YAdd 203
156. πλοῦτος *playtoc* 'wealth', *diuitiae* OM 121
157. ποιῶ *poio* 'I make, do', *facit* Irsan 629.5
158. πονῶ/πονῶν *prono* 'I suffer/suffering', *dolens* OM 168[95]
159. πούς *pos* 'foot', *pes* OM 170
160. ῥῆσις *rissis* 'speaking', *locutio* OM 626
161. ῥῖγος/ῥιγῶ *reo* 'frost/I freeze', *gelu* [*gelo?*] Y 1083
162. σάρος *caros* 'broom', *scopae* OM 212[96]
163. ταύτης *tot* 'of this', *huius* YAdd 102
164. τέλος *tiles* 'end', *finis* YAdd 102
165. ὑάλινος *yalin* 'crystal', *yalin* [*latine*] OM 35
166. ὕδωρ *idor* 'water', *liquor* OM 704, YAdd 770
167. ὑλακή? *ilactis* 'barking', *latratus* OM 711, YAdd 769, *Irsan* 632.16
168. ὕλη *ile* 'wood, forest', *silua* OM 709
169. φαγεῖν? *fage* 'to eat', *comedere* Irsan 631.5, *fag* OM 230
170. φαίνειν? *faisin* 'to appear', *apparacio* [*apparere?*] Irsan 631.10
171. φάλος *falos* 'horn (of helmet)', *ornamentum* Irsan 631.3, *falus* OM 602
172. φαντάζω *fimazo* 'I make visible, appear', *cerno* OM 538
173. φάραγξ *faran* 'chasm', *uallis* OM 489
174. φαῦλος *faolos* 'bad', *malam* Irsan 631.4, *faolus* OM 601
175. φιλεῖ *filei* 'he/she/it loves', *amat* OM 537, *filo*, [*ab*] *amore scientiae* Irsan 631.18
176. φιλόσοφος *philosophus* 'learned, philosopher', *amator scientiae* OM 512
177. φόβος *fobis* 'fear', *timor* OM 549
178. φυλακή/φύλαξ *fulas* 'guarding/guard', *custodiæ* OM 569, *falus, costodia* YAdd 615, *fulus, custodia* Irsan 631.15c
179. φυλή *fulaae* 'tribe', *tribus* OM 592
180. φυσική *uisica* 'natural', *natura* OM 545
181. φῶς *fos* 'light', *lux* OM 548
182. χαίτη? *cai* 'long hair', *coma* OM 201
183. χαμαί *cam* 'on the ground', *breuis* OM 154; *gaim* OM 558
184. χάος *chaos* 'chaos' OM 253
185. χαρά *cara* 'delight', *gaudium* OM 627, *cere* Irsan 631.31
186. χείλεα *cilia* 'lips', *labia* YAdd 613, *culæ* OM 507; *cile* OM 634, *cile* Irsan 628.11
187. χεῖμα *cheme* 'winter', *chemis .i. hiems* OM 615

---

[95] The translation *dolens* suggests a participle is intended; the form *prono* suggests the present indicative.

[96] Derived from Charisius, 36.16: σάρος *scopae* 'broom' (literally 'twigs'). Henry George Liddell and Robert Scott (eds), *A Greek–English Lexicon* (9th edn, Oxford, 1940) does not list this form, but contains the lemmata σάρον and σύρος, both translated 'broom'.

188. χεῖρες *cires* 'hands', *manus* OM 222; *ciris* OM 434
189. χωλός *cholos* 'lame', *clodus* OM 242
190. ὠμόν *omon* 'raw', *cruor* Y 1011

6. Historical phonology of Greek

The following analysis follows historical developments in Greek phonology from around the fourth century BC, when the orthography of Greek (in the newly adopted Ionic alphabet) more or less reflected contemporary pronunciation, until the tenth century AD, the *terminus ante quem* for the glossary tradition.[97] It aims to identify which developments in Greek pronunciation are represented in the glossary tradition, which are less well represented and which are not represented at all.

Two of the earliest developments regard the sounds represented in writing by the digraphs ου and ει. Allen regards these as originally representing the long mid-vowels /oː/ and /eː/, respectively, the former merging with /uː/ from the fifth century BC, the latter with /iː/ from the late fourth century.[98] These changes had occurred before Latin conventions for Greek transliteration had become established, and are therefore already reflected in the Latin forms for Greek loanwords, e.g. *Thūcȳdides* (Θουκυδίδης), *pīrāta* (πειρατής) 'pirate'. The latter change in also reflected in Irish glossaries, where the Classical digraph ει is transliterated *i* in almost every case:[99]

> /ei/ > /iː/ (*c.* late 4th century BC): αἴρεις *eris*, ἀπολλύεις *apolis*, γράφειν *grafini*, Γρύνειος *Grinius*, δειλιῶ/δειλία *dilos*, εἶδος *idos* [Y 751], ἔκλειψις *eclipsis*, ἐλάφεια *elifia*, κινεῖν? *cillín*, φαίνειν? *faisin*, χείλεα *cilia*, χεῖρες *cires*
>
> Exceptions: φιλεῖ *filei*. With *e* for *i*: εἶδος *enos* [OM 403], εἰπέ *epe*, πλατεῖα *platea*, χεῖμα *cheme*.

In the case of ου, there are few examples and they show some inconsistency (*u* or *o*).[100]

---

[97] My main authority for the historical phonology of Greek is W. Sidney Allen, *Vox graeca* (3rd edn, Cambridge, 1987) [hereafter cited as *VG*], supplemented with R.L. Palmer, *The Greek language* (London, 1980), esp. 174–200. A short overview is provided in W.B. Stanford's essay in *The sound of Greek: studies in the Greek theory and practice of euphony* (Berkeley, 1967), 122–39. These studies on the historical phonology of Greek are based primarily on sources from the Eastern Mediterranean region; our knowledge of how Greek was spoken in the West is much less certain given the relative dearth of sources there (as Paul Russell has pointed out to me).

[98] See *VG*, 69–76. The digraphs ου and ει distinguished these sounds from more open /ɔː/ and /ɛː/, represented in writing by ω and η, respectively.

[99] Indeterminate: γενειάς *genos*, ἔρις/ἐρίζειν *erison*, φαγεῖν *fag*.

[100] Indeterminate: πλοῦτος *playtoc* (partly in Greek script).

ου > /uː/: δουεύω *duileo*; ὁμοιούσιον *omoeusion*; ὁμοούσιον *omousion*

Exceptions: βουλή *bolin*; πούς *pos;* ούκ *ac;* ἀπὸ τοῦ καίεσθαι *apatoi catesta.*

The diphthong /ai/ was present in Classical Greek and Latin, spelt αι and *ae*, respectively.[101] By the early centuries of the Christian era, the sound had developed to the monophthong /ɛː/ in both languages, written ε or *e*.[102] This is also the spelling found in Irish glossaries:[103]

/ai/ > /ɛː/ (c. 1st century AD): αῖγα *ega*, αῖμα *ema*, αἴρεις *eris*, αἴρεσις *eresi*, αἴρετε *erate*, αἴρω *erae*, αἰών *eoas*, γεννῶμαι *gennome*, δίαιτα *deitan* [*dietan*?], δίκαιος *deceos*, ἑταίρα *etera*, καθαίρω *cathero*

Possible exceptions: ἀργίαι? *artiloi*, γαῖσος? *gae*, καί *cae*, φαίνειν? *faisin*, ἀπὸ τοῦ καίεσθαι *apatoi catesta*, χαίτη? *cai.*

The digraph οι represented Classical /oi/, which merged with /uː/ around the third century AD (earlier in the Boeotian dialect).[104] The few examples in Irish glossaries show inconsistency in treatment (writing *oi, oe, e*). The spellings with *e* seem to reflect rather the development in Latin of /oi/ > /eː/.[105]

/oi/ > /uː/ (3rd century AD).

Exceptions: οἰκοδομῆ *ecci dome*, οῖνος *eno*, ὁμοιούσιον *omoeusion*, ποιῶ *poio*

The Greek letter υ originally stood for the rounded vowel /y/, and this letter (in its majuscule form Y) was adopted by the Romans for a sound not native to Latin (cf. again *Thūcȳdides* for Θουκυδίδης).[106] This sound eventually lost its rounded quality, merging with /i/. The change is first noted in papyri of the second to third centuries AD, though it was not generalised until the end of the first millennium.[107] Irish glossaries commonly write *i*, with a few exceptions:[108]

/y/ > /i/ (c. 2nd century AD): βρατυν *brathin*, γλυκύ *glicin*, Γρύνειος *Grinius*, γυμνασία *gimnasia*, δορυφόρος *doriforas*, ἐνθύμημα *entimema*,

---

[101] Their equivalence is deduced from the transliteration of loanwords in both directions: *palaestra* 'wrestling school' from παλαίστρα, Καῖσαρ for *Caesar*.

[102] The merging of the sounds represented by αι and ε led Byzantine grammarians to adopt the term ὲ ψιλόν ('simple' ε) for the latter to avoid confusion: see *VG*, 79.

[103] Indeterminate: ἄκανθαι βάτος *cantabato*, ἀνάγαιον/ἀνώγεον? *anyon*, ἔλαιον *elon*, θεῶμαι/θεωρῶ? *teomoro*, χαμαί *gaim*.

[104] Hence ὺ ψιλόν ('simple' υ) to distinguish the letter ῡfrom οι: see *VG*, 80–1.

[105] See *Vox Latina*, 62.

[106] Early Latin borrowings and transcriptions wrote *u*: see *VG*, 67.

[107] *VG*, 65–9.

[108] Indeterminate: ἀπολλύεις *apolis* (possibly for *apoliis*?), βραχύτης? *botus*, δουλεύω *duileo*, θυγάτηρ? *der*, κίνδυνος *cindo*.

ἰχθύς *icties*, κύκλος *ciclos*, κυλλός *cillus*, ξύλον *silon*, ὕδωρ *idor*, ὑλακή? *ilactis*, ὕλη *ile*

Exceptions: γυνή *gune*, δύναμις *dún amnis*, ἐλύω *eluo*, ὑάλινος *yalin*,[109] φυλακή/φύλαξ *fulas*, φυλή *fulaae*.

Other short vowels—written α, ι, ε and o—are generally written with their equivalent Latin letters. The long vowels represented by η and ω are written *e* and *o* without indicators of length such as apices or doubling (e.g. ἡγεμών *egemon* 'leader'). These sounds were not subject to change into the medieval period, with one important exception. The letter η originally stood for open-mid /ɛː/. Confusion between η and ι first appears in Attic inscriptions around AD 150, and the close pronunciation /iː/ gradually came to dominate.[110] Nonetheless, in places the more open realisation survived longer, and this older value is reflected in the new alphabets based on Greek devised for Gothic (fourth century), Old Armenian (405) and Old Georgian (fifth century). In fact, the development was never fully generalised: Allen notes that 'in modern Pontic Greek η is still represented by ε in many categories and contexts'.[111] It is clear that the older pronunciation is reflected in Irish glossaries:[112]

/ɛː/ > /iː/ **(from 2nd century):** ἄμνηστία *amnestia*, ἀπό τῆς ἀρετῆς *apothoeartes*,[113] ἀρετή? *arge*, βῆμα ἀνδρός *bemandro*, βολή *bole*, γῆ *ge*, γυνή *gune*, δῆλον *delon*, ἐκκλησία *eclessia*, ἐνθύμημα *entimema*, ἡγεμών *egemon*, θρῆνος *trenon*, κλῆρος *cleros*, μῆλον *mellon*, νῆσος *nesos*, οἰκοδομή *ecci dome*, πατήρ *pater*, πλοκή *ploché*, ὕλη *ile*, φυλή *fulaae*

Exceptions: βουλή *bolin*, ἐλεήμων *elimon*, ῥῆσις *rissis*

The development of diphthongs /au/ > /av/ (or /af/) and /eu/ > /ev/ (or /ef/) is not evident in the examples βασιλεύς *basilion*, εὖ *eu*, ἱερεύς *eros*, ταύτης *tot*, φαῦλος *faolos*.[114]

---

[109] Probably influenced by the Latin borrowing *hyalinus*.

[110] See *VG*, 69–75. /ɛː/ must have risen to /eː/ before /ai/ > /ɛː/, as /ɛː/ and /ai/ did not fall together.

[111] *VG*, 75, n. 34.

[112] Indeterminate: ἀρέση? *assa*, βασιλική *basilica* (clearly based on Latin spelling), βραχύτης?, *botus*, γενηθήτω/ἐγένετο *geneie*, ἐπαρκής? *bargos*, κίκι/κηκίς *cich(is)*, λόγχη *lagon*, θυγατηρ? *der*, νωθής? *naus*, ταύτης *tot*, ὑλακή/ὕλαξ *ilactis*, φυλακή/φύλαξ *fulas*, χαίτη *cai*. Two entries suggest that etymologies were originally coined on older forms of the Irish words, since modernised in the extant texts: *bríathor* (originally *brethor*?) βρήτωρ (Fρήτωρ), *tíag* (*teg*?) θήκη.

[113] Alternatively *th(o)e* might be interpreted as a rendition of Greek script της (assuming that the *h*, represented by a *punctum* in the manuscript, was written out in the exemplar).

[114] See *VG*, 79–80; tentatively linked with the development of β /b/ > /v/ (see below). Indeterminate: γλαυκόν? *gelon*, θαῦμα? *dusma*. The form *eifonia* for εὐφονία may be taken to reflect /effonia/, but being a single example could just as well be attributed to scribal error or an erroneous transliteration of ε and υ as separate sounds.

Turning to consonants, we find aspirated *h* entirely absent from glossary forms. This sound disappeared early in the Ionic dialect, and the obsolete letter н, which represented it, was recycled to stand for the long vowel /ɛː/.[115] In the Hellenistic period, when the Ionic alphabet was adopted generally, grammarians introduced the *spiritus asper* (', originally ⊢) in an atavistic use of part of the same letter. It was no longer pronounced by the early centuries of the Christian era, and it is not present in the glossaries:[116]

/h/ > [Ø] (before *c.* **2nd century**): αἷμα *ema*, αἵρεσις *eresi*, ἄμμα? *ema*, ἑταίρα *etera*, ἡγεμών *egemon*, ἱερεύς *eros*, ἱκεσίαι *icessia*, ὅλον *olo*, ὁμοιούσιον *omoeusion*, ὁμοούσιον *omousion*, ὑάλινος *yalin*, ὕδωρ *idor*, ὑλακή? *ilactis*, ὕλη *ile*

Other consonants present a more complex situation. Historically the letters φ θ χ stood for aspirated voiceless plosives /pʰ tʰ kʰ/.[117] Latin writers devised the digraphs *ph th ch* to represent these sounds, distinguishing them from Latin and Greek's unaspirated voiceless plosives /p t k/, and in the first case (*ph*) from the Latin voiceless fricative /f/ (*f*). In the Christian era, these sounds developed into voiceless fricatives /f θ χ/.[118] The predominance of *f* in glossary forms reflects the late development:[119]

/pʰ/ > /f/ (from *c.* **2nd century**): ἀφορισμός *forismos*, γράφειν *grafini*, δίλοφον *dilofón*, δορυφόρος *doriforas*, ἐλάφεια *elifia*, εὐφονία *eifonia*, φαγεῖν? *fage*, φαίνειν? *faisin*, φαλάκρα? *forco*, φάλος *falos*, φαντάζω? *fimazo*, φάραγξ *faran*, φαῦλος *faolus*, φιλεῖ *filei*, φόβος *fobis*, φυλακή/ φύλαξ *fulas*, φυλή *fulaae*, φῶς *fos*

As mentioned above, the letter θ represented /tʰ/ > /θ/, both sounds transliterated *th*. Neither the early nor the late Greek pronunciation was present in Latin's phonemic inventory, and reflexes of Greek loanwords in Romance languages show that both Latin and early Romance speakers pronounced the sound as [t].[120] The Irish glossaries present a mixture of *t* and *th* spellings, with the former predominating.[121]

---

[115] See *VG*, 52–6.

[116] Likewise on initial ρ: *rissis* ῥῆσις, *reo* ῥιγῶ. Of course, the question of whether Latin *h* carried any phonetic value for Irish scribes is a matter of debate: see Peter Schrijver, 'On the nature and origin of word-initial *h*- in the Würzburg glosses', *Ériu* 48 (1997), 205–27.

[117] See *VG*, 18–29.

[118] /f/ presumably after transition through [φ].

[119] Exceptions: γομφῶν/γομφῶ *gobio*, ζόφος? *zibos*. The post-vocalic *b* in these forms probably reflects a fricative pronunciation (/v/) nonetheless. The form *gobio* probably reflects assimilation to *gobae*, the headword for that entry (OM 665, YAdd 713, *Irsan* 631.33a).

[120] Except, perhaps, a small number who used a learned pronunciation; see Anthony Harvey, 'Some significant points of early Insular Celtic orthography', in D. Ó Corráin, L. Breatnach and K. McCone (eds), *Sages, saints and storytellers: Celtic studies in honour of Professor James Carney*, Maynooth Monographs 2 (Maynooth, 1989), 56–66.

[121] Indeterminate: γενηθήτω/ἐγένετο *genete*, θαῦμα? *dusma*, θυγάτηρ? *der*, λίθος *lidos*, νωθής? *naus*.

/tʰ/ > /θ/ (from *c.* 2nd century):

(a) *th*: βιοθάνατος *bidbthonatus*, ἔθνος *ethnae*, καθ᾽ ὅ[λον] *catho* [*cato* YAdd 223], καθαίρω *cathero*, μάθε *matha*

(b) *t*: ἄκανθαι βάτος *cantabato*, ἄνθρωπος *antropus*, ἐνθύμημα *entimema*, θεῶμαι/θεωρῶ? *teomoro*, θήκη *tíag*, θρῆνος *trenon*, ἰχθύς *icties*, ἀπὸ τοῦ καίεσθαι *apatoi catesta*

Of course, Irish speakers and speakers of Brittonic and Germanic languages would have clearly distinguished plosive /t/ from fricative /θ/, a minimal pair in all of those languages. Would this suggest that the transcriber was therefore a Romance speaker, more liable to confuse the two? There may be another explanation. Old Irish prohibited the lenition of *t* following *n*, giving rise to de-lenition in three of these examples (ἄκανθαι βάτος *cantabato*, ἄνθρωπος *antropus*, ἐνθύμημα *entimema*), and similarly *t* following *s* (ἀπὸ τοῦ καίεσθαι *apatoi catesta*).[122] Word-initial *t* is not lenited in words cited in isolation (θεῶμαι/θεωρῶ? *teomoro*, θήκη *tíag*, θρῆνος *trenon*).[123] Thurneysen notes both that '*cht* (*gt*) is sporadically written for *chth*' and that 'the sound-group *cht* is not infrequently represented by *ct*', which may explain the form *icties* for ἰχθύς.[124]

The development of χ and its treatment in Latin are similar. It stood for /kʰ/ > /χ/, *ch* in Classical transliteration. Neither [kʰ] nor [χ] were found in Latin, and both were pronounced [k] in loanwords from Greek. This could have given rise to confusion among Latin- or Romance-speaking scribes between the spellings *ch* and *c*. Irish scribes would be less likely to confuse the two, given that *c* /k/ and *ch* /x/ (approximate to [χ]) are contrastive in Irish. However, here again Irish glossaries show inconsistency. Analogous with the transliteration of κ as *t* or *th*, Irish phonology may have influenced the spelling of χ as *c* word-initially, though apparently not in the cases of χεῖμα *cheme* and χωλός *cholos*.[125] The reason for the confusion in other words is not obvious.[126]

/cʰ/ > /χ/ (from *c.* 2nd century):

(a) *ch*: ἀντίχριστος *antichristos*, ἄχος *achos*, βρόγχος *branchos*, Ἴακχος *iachis*, ἀχῶαch, χάος *chaos*, χεῖμα *cheme*, χωλός *chlos*

(b) *c*: βροχετός *brecetos*, ἀναχωρῶ? *encoire*, ἰχθύς *icties*, χαίτη? *cai*, χαρά *cara*, χείλεα *cilia*, χεῖρες *cires*

The other principal change in the consonant system was the development of original voiced plosives /b d g/ (written β δ γ) to voiced fricatives /v

---

[122] See *GOI* §139.

[123] Given that the examples of θ as *t* correlate precisely with these aspects of Irish phonology, we might expect that *th* occurred in the glossary sources.

[124] *GOI* §§141, 28.

[125] We can probably discount *antichristos* and *chaos* because of the influence of Latin.

[126] Indeterminate: βραχύτης? *botus*, λόγχη *lagon*, χαμαί *gaim*, ψυχρόν? *flegmon*.

ð γ/ in most circumstances.[127] The chronology of this change is problematic, partly because of the absence of any orthographical convention for representing the sounds [ð] and [γ] in Latin writing. A *terminus ante quem* is the development of the Cyrillic alphabet in the ninth century, when the Greek letter β was adopted for the fricative /v/ in Slavonic.

Here again, speakers of Insular Celtic languages were familiar with, and certainly distinguished, both the earlier plosive sounds and the later fricative sounds. (Of the latter, [ð] and [γ] were foreign sounds for Latin and early Romance speakers.) Moreover, the same fricatives could also be represented in Old Irish orthography: writing *b d g* in post-vocalic position (for /v ð ɣ/). If we assume that the Irish glossary compilers were following these orthographical conventions when reading the texts, their pronunciation may sometimes have mirrored that of the Byzantine speakers. Compare the Classical and Byzantine pronunciations given for the sample of Greek words in Table 2 below.[128]

In the first three examples, an Irish reader of the ninth century could well have have pronounced λάβε *labe* 'take' like Byzantine /lave/ instead of Classical Greek /labe/, and ὕδωρ *idor* 'water' and ἡγεμών *egemon* 'leader' with Byzantine /ð/ and /γ/ similarly.[129] However, in the other examples (βολή *bole* 'throw', δέρω *dero* 'I flay', γελῶ *gelo* 'I laugh'), an Irish reader would have followed the Classical pronunciation. Therefore, although the parallels are striking in some individual cases, it is impossible to say whether they are any more than coincidental.

There is some evidence for a conditioned phonological development that followed this process of spirantisation of voiced plosives. The 'hard' /g/ sound became the semi-consonant /j/ before front vowels (after transition through [γ]), and Russell has suggested that the word spelt *anyon*, translated *dapes* 'feast', may represent Classical ἀνάγαιον (>/anagɛ:on/)

TABLE 2—Classical and Byzantine pronunciation for selected Greek words.

Greek orthography	Glossary form	Classical pronunciation	Byzantine pronunciation*
λάβε	labe	/labe/	/lave/
ὕδωρ	idor	/hydo:r/	/iðo:r/
ἡγεμών	egemon	/hɛ:gemo:n/	/ɛ:γemo:n/
βολή	bole	/bolɛ:/	/volɛ:/
δέρω	dero	/dero:/	/ðero:/
γελῶ	gelo	/gelo:/	/γelo:/

* Before η /ɛ:/ > /i:/.

[127] See *VG*, 29–32. /v/ presumably obtained after transition through [β].

[128] For the sake of clarity, I ignore in these transcriptions the pitch and stress accents of Classical and Byzantine Greek, respectively.

[129] I do not mean to suggest that the correspondence is exact. For example, *egemon* would have been read /eɣəv̂ən/. For the present I am interested only in the β δ γ sounds.

or ἀνώγεον 'dining room'.[130] The same sound disappeared altogether after front vowels, and this seems reflected in ῥιγῶ *reo* 'I freeze'.

Finally, we might note the treatment of [ŋ], an allophone of /n/ before velar consonants, indicated in Greek spelling by the use of γ in digraphs: γγ [ŋg], γκ [ŋk], γξ [ŋks], γχ [ŋkʰ] > [ŋχ].[131] There are four instances of this sound in words identified in the glossaries. In three of them the texts are probably corrupt, but they still indicate a nasal sound in the appropriate place: ἀγκών *andon*, βρόγχος *branchos*, φάραγξ *faran*. The possible exception is *lagon* λόγχη.

Table 3 below summarises in rough chronological order the main phonological developments in Greek discussed above, and collates these developments with typical forms found in the Irish glossaries. (Asterisks indicate where examples are few and inconclusive.)

TABLE 3—Greek phonological developments exemplified in the Irish glossaries.

	Greek orthography	*Historical development*	*Glossary forms*	*Chronology*
1.	ου	/oː/ > /uː/	*u, a**	Before fifth century BC
2.	ει	/ei/ > /iː/	*i*	Late fourth–third centuries BC
3.	αι	/ai/ > /ɛː/	*e*	C. AD 100
4.	ʽ	/h/ > [Ø]	—	Early centuries AD
5.	φ θ χ	/pʰ tʰ kʰ/ > /f θ χ/	*f, t(h), c(h)*	Early centuries AD
6.	οι	/oi/ > /uː/	*e, o**	C. third century AD
7.	υ	/y/ > /i/	*i*	Gradually from second to third centuries AD
8.	η	/ɛː/ > /eː/ > /iː/	*e*	Gradually from second century AD
9.	αυ, ευ	/au eu/ > /av ev/	*o, eu, ao**	Before ninth century AD?
10.	β δ γ	/b d g/ > /v ð γ/	*b, d, g*	Before ninth century AD

* The asterisks indicate where examples are few or inconclusive.

It is clear from the above that the spelling of Greek in Irish glossaries consistently reflects the contemporary pronunciation by the third century AD at least (changes 1–6). Four developments were not yet generalised during the Old Irish period (7–10). The first of these (7) is certainly represented, the second and third (8–9) certainly absent, and the fourth (10) is difficult to identify due to ambiguous orthography.

We might note in passing that this radical departure from Classical Latin transliteration would have presented difficulties for anyone trying to reconcile sources for Greek in Greek script with sources transliterated. The Classical Latin transliteration *hyle* for ὕλη 'wood', for example, originally reflected both the spelling in Greek script and the sound of the word

---

[130] Russell, '*Graece...latine*', 409.

[131] See Damian McManus, *A guide to Ogam* (Maynooth, 1991), 29–30, for the treatment of this allophone, corresponding to the Greek letter *agma*, in the ogam alphabet.

([hy:lɛ:]) reasonably accurately (vowel length excepted). While *ile* (as in OM 709) better represented the medieval pronunciation ([ilɛ:] > [ili:]), its form in Greek script would no longer have been predictable, and might as well have derived from ιλε, υλη, ειλαι, or any of several other possibilities.[132]

7. IRISH ORTHOGRAPHY

The analysis so far indicates that the spelling of Greek in Irish glossaries reflects the pronunciation of Greek as it was in the late antique period, certainly around the time O'Mulconry may have been compiled, in the seventh or eighth centuries.[133] However, the discussion has assumed that the spelling of Greek words in Latin script generally conforms to the conventions of Classical or Late Latin orthography. In fact, the Greek words cited in Irish glossaries are embedded within basically Old Irish texts, composed and copied by Irish scribes. What, then, was the influence of Old Irish orthography?[134]

We should observe in the first place that none of the spellings shows signs of any adaptation to Classical Old Irish orthography. Tellingly, the letter *c* is not used to represent /g/ after vowels, nor is *p* for /b/ or *t* for /d/ in this position. Similarly, there are no instances of doubling of consonants to indicate unlenited or voiceless stops in post-vocalic position: *cc tt gg bb dd mm* for /k t g b d m/ (where single consonants would typically represent /g d ɣ v ð ṽ/). An author who wanted to represent the sound [apodos] for ἄποδος 'give back' in Classical Old Irish spelling might, for example, have written *apotos* instead of the text's *apodos*; similarly *lape* (not *labe*) for λάβε, *ecemmon* (not *egemon*) for ἡγεμών.

On the other hand, in an earlier Old Irish orthography, post-vocalic *g b d m* could also stand for the unlenited consonants, and post-vocalic *c p t* for voiceless consonants. In fact, if we accept the early date for O'Mulconry's Glossary, this alternative usage might have been more common at the time of its composition, reflecting the system that Carney described as fighting a losing battle by the time of the Würzburg *prima manus*.[135]

The context of the citations within the glossaries might help narrow some of these ambiguities. We could expect the compilers to associate Irish

[132] Such difficulties would be compounded by the fact that medieval transliteration was not consistent, either between one manuscript and another, or often even within a single text. This is evident in perusing the shorter *hermeneumata* Greek–Latin glossaries published in Georg Goetz (ed.), *Corpus glossariorum latinorum* (7 vols, Leipzig, 1888–1923, repr. Amsterdam, 1965), vol. 3. For example, γυνή 'woman' is variously spelt *gyni* (132.47), *gine* (495.41), *gyne* (512.17), while Leiden, Universiteitsbibliotheek, MS VLF 26 has *gyne* (410.23), but in at least one other case transliterates υ as *u*: ἰχθύς 'fish' *ictus* (415.30).

[133] Mac Neill, 'De origine', 116–17.

[134] We saw above that the relationship between Classical Old Irish orthography and the Byzantine pronunciation of β δ γ could have been merely coincidental.

[135] J. Carney, 'Aspects of archaic Irish', *Éigse* 17 (1979), 417–35: 417; discussed in Harvey, 'Some significant points', 58.

headwords with Greek words that they thought sounded similar. Given that we know the pronunciation of most of the Irish headwords with reasonable certainty (some *hapax legomena* aside), this should reveal something about the pronunciation of the corresponding Greek words. Table 4 below illustrates how the glossary compilers treated post-vocalic *c p t m* in related Irish and Greek words.

In the first example, a Greek word spelt *icessia* (very likely for ἄκεσις 'cure') is associated with the Irish word *ícc* [iːk']. This suggests that post-vocalic *c* in Greek words was pronounced as [k], not [g]. However, in the next example, an identical form *icessia* (here ἱκεσία 'prayer') is associated with Irish *éces* [eːg'əs], having a corresponding [g] sound. Similarly, post-vocalic *t* in Greek words is associated with both [t] and [d] in Irish words: the phrase *catos apotoi catesta* (*catus* ἀπὸ τοῦ καίεσθαι 'cat from [the word] "to kindle"') is matched with Irish *cat* [kat], but ἑταίρα *etera* 'companion' is matched with Irish *etred* [ed'r'əð]. Post-vocalic *m* in Greek spellings can be matched with Irish [m] or lenited [ṽ]: e.g. Greek ἄνεμος *anemos* 'wind' with Irish *anim* [anəm'], but χεῖμα *cheme* 'winter' is matched with Irish *gam* [gaṽ]. (I can find no instance of post-vocalic *p* in a Greek word paired with [p] in an Irish word, though this is not surprising given the rarity of this sound in Irish.)

The overall impression, therefore, is that the glossary compilers' method was to make etymological connections on the basis of graphical similarities, rather than on sound correspondences.

8. Conclusion

The evidence of Irish glossaries indicates that the transliteration of Greek words in those texts systematically reflects the pronunciation of contemporary speakers in the seventh or eighth centuries. The most notable feature of the transliteration in the glossaries is the treatment of the long

TABLE 4—Treatment of post-vocalic *c p t m* in Irish and Greek words in the glossaries.

Entry	Sound value	Headword and Greek word in context
OM 701	*c* for /k/	*Ícc* .i. *icessia* [ἄκεσις] *grece, salus interpretatur.*
OM 351	*c* for /g/	*Éces grece icessia* [ἱκεσία] .i. *preces* [MS *praeceps*] ... *
—	*p* for /p/	[no examples]
OM 49	*p* for /b/	*Apad grece .i. apodos* [ἄποδος] .i. *redde* ...
OM 211	*t* for /t/	*Cat grece catos dicitur apatoi catesta* [ἀπὸ τοῦ καίεσθαι] ...
OM 457	*t* for /d/	*Etred ... Etera* [ἑταίρα] .i. *meretrix.*
OM 88	*m* for /m/	*Anim grece animos* [ἄνεμος], *latine uentus uel anima.*
OM 615	*m* for /Ṽ/	*Gaim a cheme* [χεῖμα] .i. *chemis* .i. *hiems.*

* Note Stokes's correction for this entry, 'O'Mulconry's Glossary', 473.

vowel η, which retained a conservative pronunciation in the face of prevailing Byzantine itacism.[136]

Individual readers, of course, may have pronounced these words in various ways, depending on whether they interpreted the forms according to the conventions of Classical/Late Latin, early Old Irish or Classical Old Irish orthography. Nonetheless, it is clear that the transliterations were made by scribes following either Latin or early Old Irish orthography, and the latter is not incompatible with the date of O'Mulconry's Glossary, the most important text for this material. For the purposes of etymology, however, the pronunciation of Greek was not a significant issue for the glossary compilers, and they were content to posit Greek origins for Irish words primarily on the basis of graphical similarity.

SIGLA

DDC	*Dúil Dromma Cetta*, *CIH* 604.39–622.12
Irsan	*CIH* 627.36–633.33
OM	Whitley Stokes (ed.), 'O'Mulconry's Glossary', *ACL* 1, 232–324, 473–81
Y	*Sanas Cormaic*, K. Meyer (ed.), *Anecdota*, vol. 4
YAdd	*Sanas Cormaic* (see previous), referring to articles found only in the long recension.

---

[136] This seems congruent with the suggestion above that Theodore of Tarsus was the most likely source of information for the sound of contemporary Greek. As a native of Cilicia in south-eastern Anatolia (relatively peripheral to the Greek heartland), his speech may have been conservative, as was the speech of Pontus to the north, which never generalised this development (see *VG*, 75, n. 34); see above pp 34–35.