Abstract: This study aims for a better understanding of the Celtic glossing tradition on Bede the Venerable’s *De natura rerum*. The Latin text with Celtic vernacular glosses is found in three different manuscripts. Some glosses occur in parallel transmission with others in either another vernacular language or Latin. In this article new glossing material is published for the first time and these glosses are thoroughly analysed and compared.

Keywords: Bede, glossing, parallel glosses, Old Irish, Old Breton, Old Welsh, bilingualism, code-switching.

Introduction

The parallel transmission of glosses, that is glosses on the same lemma transmitted in different manuscripts, is important for the better understanding of the Celtic glossing tradition. The best-known collection of Old Irish glosses, the *Thesaurus Palaeohibernicus*, for example, sometimes provides helpful references to other manuscripts containing parallel material. So far, however, Celtic scholars have...
mainly focussed on the vernacular glosses, mostly neglecting parallels in Latin (or other languages). However, to fully fathom the textual relationships, as well as the history and transmission of the glosses and the manuscripts themselves, it is fundamental to also include the Latin glosses in future critical editions of the corpora. Furthermore, parallel glosses sometimes help to restore illegible text of specific glosses. As the author has shown in an article on the Old Irish glosses on Bede’s *De temporum ratione* in the manuscript Vienna, Österreichische Nationalbibliothek, Cod. 15298 (olim Suppl. 2698), the Latin glosses can be helpful for these purposes. They should, therefore, be given an equal status in the research on the Celtic glossing tradition.

Ground-breaking research on the vernacular parallel glosses to Bede’s works was carried out by Pierre-Yves Lambert, especially in his article ‘Les commentaires celtiques a Bède le Vénérable’. While he deals with the Old Irish and Old Breton glosses both on *De temporum ratione* and *De natura rerum*, the present article only concentrates on the latter. Furthermore, it also takes the Latin glosses into account and provides a detailed list and analysis of all the vernacular and Latin glosses in parallel transmission. It also provides the context of the glosses within the Latin main text, to show their relation to the underlying text, because — as stressed by Padráic Moran — the isolated study of the vernacular Celtic glosses ‘has inhibited the exploration of textual relationships’ so far.

Out of the bulk of Celtic glossed Bede manuscripts, three feature parallel glosses on *De natura rerum* in either the vernaculars, or in (one of the) vernaculars and Latin:

(1) Aberystwyth, National Library of Wales, Peniarth 540 (= Pen.) is dated to the first half of the twelfth century. The manuscript can be viewed at the website of the National Library of Wales. This fragment contains a part of *De natura rerum*.

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3 What follows in the footnotes below is only a representative selection of Pierre-Yves Lambert’s oeuvre on the practice of Celtic glossing.


(2) *Angers*, Bibliothèque municipale 477 (= Ang.) is dated to 897\(^8\) on account of a calculation found on folio 21\(^4\). It was composed in Brittany.\(^9\) The manuscript can be viewed at *Bibliothèque Virtuelle des Manuscrits Médiévaux*.\(^10\)

It features, inter alia,\(^11\) Bede’s *De temporibus* and *De temporum ratione*. *De natura rerum* is found on folios 10\(^6\)–18\(^8\).

(3) *Karlsruhe*, Badische Landesbibliothek, Augiensis pergamentum 167 (olim Codex Augiensis CLXVII) (= BCr.) is roughly\(^12\) dated to the later part of the first half of the ninth century (cf. Marc Schneider’s ‘vor 830’;\(^13\) Bernhard Bischoff’s ‘848’;\(^14\) and Felix Heinzer ‘um 850’).\(^15\) It was either\(^16\) written in Ireland\(^17\) or in an Irish milieu on the continent. Arno Borst offers arguments for the Soissons and Laon region.\(^18\) Either way it must have been in north-east France\(^19\) before it arrived in Reichenau. The manuscript can be viewed at the website of the Badische Landesbibliothek.\(^20\)

Besides various anonymous computistical works, it contains Bede’s *De temporibus* and *De temporum ratione*. *De natura rerum* is found on folios 18\(^r\)–21\(^r\).

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\(^12\) See Bronner, *Verzeichnis altirischer Quellen*, 19–20.


\(^16\) For a recent discussion of its provenance, see Bernhard Bauer, ‘The interconnections of St Gall, Stiftsbibliothek, ms 251 with the Celtic Bede manuscripts’, *Keltische Forschungen* 8 (2019) 31–48: 46–47.

\(^17\) Schneider, ‘Datierung’, 252.


Parallel Glosses

The definition of parallel glosses used here is the following: all instances in which the different manuscripts have glosses on the same lemma at the same position within the underlying Latin text. In what follows, the main text is given as edited by Charles W. Jones. If the manuscripts have different versions of the main text, those are given in the commentary. The glossed forms are underlined and a superscript number serves for reference purposes within this article. The Latin text is followed by its translation, cited from Calvin Kendall and Faith Wallis’s translation of *De natura rerum*, in which the parts of interest are also underlined. Below this are the glosses. All readings are based on my own research on the available high-resolution scans and, unless otherwise stated, all translations of the glosses are mine. In addition to already published material, the following discussion also presents new glossing material which is presented here for the first time. Comments are immediately following the glosses.

The Glosses

De mundi formatione

(CCRL 123A, 193, DNR II)

... Sexto, reliqua animalia de terra, et homo carne quidem de terra, anima uero de nihilo, creatus ...

On the sixth, the rest of the animals were made from the earth, and man was created, in the flesh of course from the earth, but in the soul from nothing.

DNR 1:

Ang. 10*28 (A)\(^{15}\) sed in primo die

but in the first day

BCr. 18*32 (= 18*3)\(^{14}\) aehl is in/ primo die/ són ...

but that is in the first day

Bede’s chapter *De mundi formatione* deals with the creation. These two glosses refer to *anima uero de nihilo* ‘but the soul [was created] from nothing.’ The base text informs the reader that mankind was created on the sixth day ‘in the flesh of


\(^{12}\) Kendall & Wallis, *Bede*, 75.

\(^{13}\) The letter in parentheses gives the glossator.

\(^{14}\) The numbering in parentheses is the one of the *Thesaurus Palaeohibernicus*. 
course from the earth, but in the soul from nothing.\textsuperscript{25} The glosses further elucidate this by stating that the creation of the soul was on the first day, i.e., the day of the initial creation from nothing (\textit{ex nihilo}). Turning to a philological analysis of the parallel glosses, it immediately strikes the eye that they both contain \textit{in primo die}. Where Ang. has \textit{sed ‘but’} in abbreviation, BCr. has supplied the Irish translation \textit{acht}. Furthermore, the Latin part of the original underlying gloss after \textit{sed} was translated to Irish in the latter manuscript. For the St Gall glosses, Padrácí Moran suggested to ‘question whether the Irish glosses are original compositions at all, or merely translations from inherited Latin sources.’\textsuperscript{26} DNR 1 suggests that the scribe of BCr. found the Latin gloss which is also attested in Ang. in his original and transformed it into a bilingual gloss.\textsuperscript{27}

\textit{Quid sit mundus}

(\textit{CCSL 123A, 194, DNR III})

\textit{Mundus est uniuerisitas omnis, quae constat ex caelo et terra, quattuor elementis in speciem orbis absouti globata}\textsuperscript{DNR2}: igne, quo sidera lucent; aere, quo cuncta uiuentia spirant; aquis, quae terram cingendo et penetrando communium\textsuperscript{DNR3}

The world is the entire universe, which consists of heaven and earth, rounded out of four elements into the appearance of a complete sphere: out of fire, by which the stars shine; out of air, by which all living things breathe; out of the waters, which barricade the earth by surrounding and penetrating it.\textsuperscript{28}

DNR 2:

<table>
<thead>
<tr>
<th></th>
<th>Ang. 10\textsuperscript{b}3d (B)</th>
<th>\textit{i. ab omni parte}</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ang. 10\textsuperscript{b}3e (B ?)</td>
<td>\textit{circulata}</td>
<td></td>
</tr>
<tr>
<td>BCr. 18\textsuperscript{a}40 (= 18\textsuperscript{a}4)</td>
<td>\textit{i. cruind ab/ omni part/e soluti}...\textsuperscript{19}</td>
<td></td>
</tr>
</tbody>
</table>

The main text of the two manuscripts deviates from the canonical one cited above. Instead of \textit{orbis absouti globata}, Ang. has \textit{absoluti orbis globata} and BCr. has \textit{absoluti orbis globata}. BCr. 18\textsuperscript{a}40 is located in the left margin with a reference to

\textsuperscript{25} Kendall & Wallis, \textit{Bede}, 75.

\textsuperscript{26} Moran, ‘Interaction’, 136.

\textsuperscript{27} This could have also already happened in the archetype. It is, however, assumed here that this happened while the Karlsruhe manuscript was being written.

\textsuperscript{18} Kendall & Wallis, \textit{Bede}, 75.

\textsuperscript{19} The first two letters of \textit{soluti} are somewhat corrupted, but they can be read as \textit{so}.
absoluti. The two glosses in Ang. are found over globata, although Ang. 10b3d refers to absoluti. It seems likely that they have been entered independently. Although the hand looks very similar, the shorter gloss is in a darker ink. It is hard to tell which one was written first, but since the l of circulata is a bit shorter than usual, and the longer gloss occurs between the two lines, it seems that the shorter one was squeezed in afterwards. Interestingly, there are also two glosses on absoluti in Ang., which read perfecti ‘perfect’ and i. non lati sed soluti ‘i.e. not lati but soluti’. The former is possibly by the same hand as circulata. Perfecti also occurs in the left margin, which was probably added to make the reading of the interlinear gloss clear, because its ending -cti is somewhat hard to decipher. The longer one is in a different hand and comments on the fact that the Latin text really has absoluti, a form that does not make sense here, and not oblati ‘offered, shown, exposed’. As mentioned above, this absoluti, however, goes back to a misreading of absoluti.

What is striking is the inverted word-order found in both manuscripts, i.e. absoluti/obsoluti orbis globata instead of orbis absoluti globata. This is unlikely to be coincidental. It rather shows that the main texts of the two corpora go back to a common original. To shed more light on this, all other eighteen manuscripts of De natura rerum that are available online and that date into or before the ninth century have been checked. In addition to Ang. and BCr., two more manuscripts share this particular word order: St Gall, Stiftsbibliothek, 248, and St Gall, Stiftsbibliothek, 250. These two, however, do not have any glosses. Another manuscript of St Gall, i.e. Stiftsbibliothek, 251, transmits the same misreading of absoluti as Angers 477. In St Gall 251, however, a scribe added uel a ‘or a’ above it and therefore offered a correction. Although this assumption is only based on the

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30 A medieval Latin absolutus is, e.g., attested in the so-called ‘Corpus Glossary’; see Wallace Martin Lindsay (ed), The Corpus Glossary (Cambridge 1921). A verbal form absoluere ‘to undo; to absolve, acquit, free; to solve, settle (question or problem)’ is given in Fascicle VIII: O of the Dictionary of Medieval Latin from British Sources (ed. David Robert Howlett, Oxford 2004). The perfect passive participle of this should be absolutus, but it is not mentioned. Furthermore, a reference to the entry in the Corpus Glossary is not given. Another possible explanation is that absoluere is a by-form of absolutu, which can have the same meaning.

31 The manuscripts are taken from the list given by Kendall & Wallis, Bede, 4.4–56. This list features 41 manuscripts that are dated to the ninth century.

32 They are in alphabetical order: Karlsruhe, Badische Landesbibliothek, Karlsruhe 442; London, B.L., Cotton Caligula A XV; London, B.L., Harley 3091; Munich, Bayerische Staatsbibliothek, Clm 210; Paris, B.N. lat. 4860; Paris, B.N. lat. 5543; Paris, B.N. 7400B; Paris, B.N. lat. 13013; Paris, B.N., Nouv. acq. lat. 1615; Paris, B.N., Nouv. acq. lat. 1632; St Gall, Stiftsbibliothek 248; St Gall, Stiftsbibliothek 250; St Gall, Stiftsbibliothek 251; St Gall, Stiftsbibliothek 397; St Gall, Stiftsbibliothek 878; Vatican City, B.A.V., Pal. lat. 14449; Vatican City, B.A.V., Vat. lat. 645; Vienna, Österreichische Nationalbibliothek, 387.

33 For a recent discussion of this manuscript and its connections to Ang. and BCr., see Bauer, ‘St Gall, Stiftsbibliothek, ms 251’.
detail of the word-order of three words, these five manuscripts seem to belong to
the same stemma of the Latin text of *De natura rerum*.

What can be said about these glosses? According to Kendall and Wallis, the
glosses of Ang. ‘lie outside any affiliation’ with other commentaries, but as the
present article shows, the glosses of Ang. and BCr. show striking connections.
The gloss discussed in this example, i.e. *ab omni parte*, e.g., is only attested in these
two manuscripts and does not occur in any of the other checked manuscripts. Are
there further ties with other corpora? Kendall and Wallis state that there are eight
manuscripts featuring *De natura rerum* with glosses of the ninth century. Unfor-
tunately, they do not state which ones, but while checking the above-mentioned
manuscripts, six of them could be identified:

(1) Ang.
(2) BCr.
(3) Karlsruhe, Badische Landesbibliothek, Karlsruhe 442
(4) Paris, B.N. lat. 5543
(5) Paris, B.N. lat. 7400B
(6) Paris, B.N. nouv. acq. lat. 1615

In addition to them, the *Tegernsee miscellany*, i.e., Harry Ransom Center 29 (=
HRC 29), dating to the eleventh century, was also checked. Most interestingly,
glosses in parallel transmission could be identified in these manuscripts. On ac-
count of them the manuscripts can be grouped.

Group A consists of Karlsruhe 442 and Paris 7400B. They both have the same
two glosses over the passage in question:

1. *circuli* ‘circles’ over *speciem ob orbis* [*sic!]* in Karlsruhe 442 (fol. 22r) and
   *circuli* over *orbis* in Paris 7400B (fol. 13r)
2. *collecta* ‘gathered, collected’ glossing *globata* in both manuscripts

Group B consists of four manuscripts that all share at least one gloss, i.e., *perfecti*
‘perfected’ located over *absoluti/absoluti* in Ang., HRC 29 (fol. 3’), and Paris 5543
(fol. 77’), and over *globata* in Paris, nouv. acq. lat. 1615 (fol. 128’). In addition to
that, the latter manuscript and HRC 29 share another two glosses: *i. rotunditatis*
‘i.e. of roundness’ glossing *orbis*, and *i. coadunata* ‘united’ glossing *globata*. These
two glosses are corrupted in Paris, nouv. acq. lat. 1615, and their reading is some-
what uncertain, but it seems like they are the same as in HRC 29. Paris, NAL 1615
also has a fourth gloss: *diuisi distincti* ‘separated, distinct’ located over *absoluti*,

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35 The scribe tried to scratch out *ob*, so it looks like he made a mistake while copying, i.e. starting
*orbis* with *ob* instead of *orb.*
which is not shared by any other codex. It seems like this gloss forms an entity with *perfecti*, meaning that the glossator listed several adjectives to translate *absoluti*.

BCr. does not feature any of the four glosses found in Group B; however, it shares the longer gloss *ab omni parte* found over *globata* in Ang. The shorter one, *cirulata*, is translated into Irish in BCr. 18°40, it is hence a bilingual conflation of the two Ang. glosses in reverse order. A similar procedure is also found in DNR 7 and 10, which very likely are translations. Another peculiarity of BCr. 18°40 is that *ab [...] soluti* occurs in the gloss. This could be a scribal error, meaning that the original had *absoluti* in the gloss, and the scribe skipped a line while copying it. Another possibility, however, is that the original text of the gloss combined *cruind* (translating *circulata*) and *ab omni parte*. Subsequently, a different scholar noticed that *ab* in the gloss mirrored *ab-* in *absoluti* in the text and added *-soluti* to make an additional etymological observation, in the device of tmesis.36

DNR 3:

Ang. 10°5b (A)  
*i. circumdant.*  
i.e. they surround/enclose

BCr. 18°43 (= 18°6)  
*con-gaibet*  
they contain

These two glosses are an example of parallel glosses in which BCr. has a vernacular and Ang. a Latin gloss.

_De uaria altitudine caeli_

(CCSC 123A, 197, DNR VI)

*Verum eadem quibusque proximis sublimiora creduuntur, eademque dimersa longinquiss. Vique nunc sublimis in defectu positis uidetur hic ueste, sic in illa terrae deuexiitate transgressis illa se adtillunt. Residentibus quae hic excelsa fuerant, opponente se contra medios uisus globo terrarium, adeo ut septentriones, quae nobis a ueste pendent, in quibusdam Indiae locis quindec-im tantum in anno diebus appareant.*

The fact is that the same stars that are thought to be higher up by those who are nearest them seem to be submerged by those who are distant. And just as this pole now seems high to persons placed on this slope, so to those who crossed over to that downward slope of the earth other stars rise up, and the ones which had been lofty in this place set, as the curvature of the earth blocks the intervening view, to such an extent that the seven [stars], which

36 This explanation was offered by one of the reviewers.
hang from our perspective from the pole, appear in some places in India only for fifteen days in the year.37

DNR 4:

<table>
<thead>
<tr>
<th>Ang. 11ª9c (A)</th>
<th>in guriselder</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>in (the) depth/lowness</td>
</tr>
<tr>
<td>BCr. 18ª26a (= 18ª6)</td>
<td>i n.-tiul</td>
</tr>
<tr>
<td></td>
<td>in (the) depth</td>
</tr>
</tbody>
</table>

DNR 5:

<table>
<thead>
<tr>
<th>Ang. 11ª10a (A)</th>
<th>.i. dehoupardh.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>i.e. (the) south part</td>
</tr>
<tr>
<td>BCr. 18ª27 (= 18ª7)</td>
<td>isind isl</td>
</tr>
<tr>
<td></td>
<td>in the lowness</td>
</tr>
</tbody>
</table>

These four glosses seem to go back to common Latin (?) originals, on account of the lexemes used: BCr. 18ª26a and 18ª27 both feature forms connected with the word for ‘low(ness)’; Old Irish isel ‘low’, ísle ‘lowness’. Its British Celtic cognate isel is also attested in different forms in Ang. (10ª12, 13ª22d, 13ª23c, 12ª13a). Nonetheless, Ang. 11ª9c and Ang. 11ª10a use different lexemes to gloss Latin in deiectu and deuexitate.

DNR 6:

<table>
<thead>
<tr>
<th>Ang. 11ª10d (A ?)</th>
<th>transregdientalis</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>pertaining to crossing</td>
</tr>
<tr>
<td>BCr. 18ª28a (= 18ª8)</td>
<td>tarsa-tarmbiagat</td>
</tr>
<tr>
<td></td>
<td>over which they cross</td>
</tr>
</tbody>
</table>

The Latin gloss of Ang. is very peculiar and seems to be an ad-hoc formation of the glossator. The Irish gloss of BCr. is semantically connected because it features the Old Irish verb tarmi-téit ‘to cross, traverse’. The glossator, however, chose a different strategy and used a finite verbal form, where the glossator in Ang. used an adjective.

De caelo superiore

(CC SL 123A, 198, DNR VII)

Dehinc inferius caelum non uniformi, sed multiplici motu solidaduit, nuncupans illud firmamentum ...

37 Kendall & Wallis, Bede, 77.
Hence he established the lower heaven not with uniform but with complex motion, calling it the ‘firmament’...38

DNR 7:

Ang. 11r22c (B)  
*i pe* [leg. *is e*] enim est *multiplex motus i.e. cursus quem currunt planetae in contrarium contra se et naturalis cursus de aliis creaturis.*
i.e. [?] because it is *multiplex motus* i.e. the course, which the planets run in opposition against themselves and the natural course from the other creations.

BCr. 18r41 (= 18r12)  
*is e multiplex motus inriuth retae inna airndrethcha in contrarium contra se, a rriuth aicneta fedesin,*
the *multiplex modus* is the course which the planets run in opposition against themselves, and their own natural course

The beginning of Ang. 11r22c is puzzling, but it is best explained as being a mis-reading. Most likely, the scribe of Angers found insular *is e* (which is exactly what is found in the parallel gloss) in his original and misinterpreted the *s* as a *p*. Hence, he wrote *i pe*. This is an unmistakeable sign that the glossator had (at least also) an Irish original for the glosses.

De cursu planetarum

(CCSL 123A, 203–04, DNR XII)

*Inter caelum terramque septem sidera pendent; certis discreta spatia, quae uocantur errantia,...* [204] *Radiis autem solis praepedita, anomala, uel retrograda, uel stationaria fiunt.*

Seven stars, which are called wanderers, hang between heaven and earth, separated by fixed intervals,... [81] But, impeded by the rays of the sun, they become irregular, or retrograde, or stationary.39

DNR 8:

Ang. 12r16d (A)  
*i.e. by cycles*

BCr. 18r51 (= 18r3)  
*bité spatia/ na rree fil/ à terra usque/ ad XII. signa/ bité soni/to/ ni. comdala/ n. bité inter/ ualla immargu de/ ferentiae/ ni tiagat sai/ dai sech sai/ tuirn suas/ ut Plinius dicit [et] refiqua/ Plinius: tonus est spati/ um cum legitima quan/ titate*

58 Kendall & Wallis, Bede, 77.
59 Kendall & Wallis, Bede, 80–81.
These are the *spatia*, the spaces which are from the earth up to the 12 signs. These are the perfect *soni, toni*, etc. These, however, are the *interualla deferentiae*, and these do not go up past Saturn, as Pliny says, etc. Pliny: *tonus* is a space with fixed quantity.

Both glosses offer further explanations to *certis discreta spatiis* of the Latin text. On the one hand, the gloss in BCr. explains what is meant by *spatia*, and on the other, it also refers the reader to Pliny’s opinion on the *interualla differentiae*. Latin *sonus* ‘sound’ and *tonus* ‘tone’ refer back to the concept of the *Musica universalis*, in which the intervals between the sun, the moon, and the planets are seen as analogous to music. The gloss found in Ang. consists of a single word only and just refers to the fact that the spaces have the form of cycles, i.e. that the stars wander in cycles.

DNR 9:

<table>
<thead>
<tr>
<th>Ang. 12’22d (B)</th>
<th><em>supra solm</em></th>
</tr>
</thead>
<tbody>
<tr>
<td>above the sun</td>
<td></td>
</tr>
<tr>
<td>BCr. 18’59 (= 18’4)</td>
<td><em>i. sias cach diruch</em></td>
</tr>
<tr>
<td>i.e. straight/directly upwards</td>
<td></td>
</tr>
</tbody>
</table>

Although they do not seem to have much in common, these two glosses share the idea that the seven stars are ‘above the sun’, i.e. ‘directly upwards’ in the Irish gloss, when they become stationary. A philological connection, however, cannot be traced in DNR 9.

*De ordine eorum*

(CCSL 123A, 205, DNR XIII)

*Nouissima luna ·xxvii· diebus et tertia diei parte signiferum conficiens, dein morata in coitu solis, biduo DNR10 non comparere in caelo;*

Last is the moon, accomplishing its course in 27 and 1/3 days, thereafter lingering in company with the sun for two days.40

DNR 10:

| Ang. 12’33d (B) | *i. postrema dies* 3 & 4* postrema dies in xxviii & in prima statim post suo*
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>the last day [reference to the right margin] the last day in twenty-nine and in the first after it then</td>
<td></td>
</tr>
</tbody>
</table>

41 The beginning of the gloss is interlinear with a reference 3 to the rest of the gloss found in the right margin. This division is also the reason why *postrema dies* is repeated.
BCr. 18411 (18401) biduo i.e. allaithe tedenenach diud nochtich phrim archiunn [et] reifqua.

biduo i.e. the last day at the end of the month of twenty-nine days and the first following, etc.

These two glosses elaborate on the term biduo ‘continuing for two days’. They explain that the moon ‘lingers with the sun’, i.e. is not visible for two days after the completion of its cycle.

De apsidibus eorum

(CCSL 123A, 205–06, DNR XIV)

Sunt autem sui cuique planetarum circuli, quos Graeci apsidae in stellis uocant, ... [206] Omnia autem haec constant ratione circini semper indubitata. Ergo ab alio cuique centro apsides suae exsurgunt. Ideoque diuersos habent orbis, motusque dissimiles ...

All of the planets have their individual orbits, which in the case of the stars the Greeks call ‘apsidae’ ['arcs'] ... And all these latter are always in agreement with the precise measurement of a pair of compasses. Therefore, the arcs of the planets arise from a unique centre for each, and for that reason they have diverse orbits and dissimilar motions, since it is necessary that the inner arcs be shorter.\textsuperscript{42}

DNR 11:

Ang. 12b7b (A) \textit{i. circulos uel guocrisiou}
i.e. circles or belts

Ang. 12b7c \textit{i. zonas}
i.e. belts

BCr. 18422 (= 1841) \textit{i. nomen dunaih erdomnaib imbi indócbál frisa rind absidias i. circulos i. fubíth do-ágnlat cercol ocond ocbál}
i.e. the name of the very depths, in which the rising up to the constellation is, is apsides i.e. circles i.e. because they make a circle in the rising

The glosses explain the Greek loanword \textit{apsis} the circle which a star describes in its orbit. While the ones in Ang. only feature single words explaining it, BCr. has a longer gloss in Irish. It is interrupted by \textit{i. circulos} ‘i.e. circles’, which is also found at the beginning of Ang. 12b7b. According to Jacopo Bisagni, instances where ‘the

\textsuperscript{42} Kendall & Wallis, \textit{Bede}, 82.
two languages are separated by Tironian notes\textsuperscript{43} should not be tagged as bilingual. He stresses that one cannot be certain whether or not the Irish and the Latin parts of these glosses were composed contemporarily, or by the same person. While this holds true for Ang. 12\textsuperscript{b}7b,\textsuperscript{44} BCr. 18\textsuperscript{d}22, however, may represent an exception in the way that it seems very likely that it was always one single gloss. The inserted Latin apsidias, a variant of apsidas, can be interpreted as a citation from the main text and serves therefore also as a reference to it for this marginal gloss, which is otherwise not connected. The insertion \textit{i. circulos} can be interpreted as a gloss on apsidias, which was likely to be found in the original, as is shown by the other manuscript. Following Jacopo Bisagni, it may thus not be an example of bilingualism in the strict sense. He states that ‘any monolingual individual possessing a basic reading knowledge of Latin would have been able to produce such a “bilingual” text’.\textsuperscript{45} Nonetheless, it seems legitimate to discuss the gloss in a bilingual context, because the following Irish text takes on the meaning of Latin circulos and even features the Latin loanword \textit{circul/cercol}. Similar to DNR 1, the gloss in Karlsruhe adds an Irish ‘frame’ to a Latin gloss presumably found in the archetype.

**DNR 12:**

\begin{tabular}{l l}
| Ang. 12\textsuperscript{b}10c (B) | \textit{i. innom ir gablrinn} \\
| & i.e. of a pair of compasses \\
| BCr. 18\textsuperscript{d}25 (= 18\textsuperscript{d}3) | \textit{i. gabalrind uel diathre} \\
| & i.e. a pair of compasses or orbits |
\end{tabular}

These two glosses show Irish influence on British Celtic, at least from a linguistic point of view, as \textit{gabalrind} and \textit{gablrrnn} cannot be cognates, because\textsuperscript{46} the second member of the compound \textit{rind/rinn} is not attested elsewhere in Breton. The cognate of Old Irish \textit{rind} ‘point, tip’ is attested in Welsh as the adjective \textit{rhyn}. Its semantics, however, are different, i.e. ‘rigid, stiff, unyielding, steadfast, brave’. This means that the original meaning was lost early on in the British Celtic languages, and the word was not continued in Breton. It is therefore unlikely that the meaning ‘point, tip’ should occur in this compound as a \textit{hapax legomenon} in the glosses. An \textit{ad hoc} borrowing from the Irish is more economical. The lemma was Bretonised, by replacing the first member of the Irish compound \textit{gabal} with its British Celtic counterpart \textit{gabl}. There are also other examples of (possible)

\textsuperscript{43} Bisagni, ‘Prolegomena’, 26.

\textsuperscript{44} Although Ang. 12\textsuperscript{b}7b is written by the same hand, it remains unclear whether it was originally composed as a bilingual gloss.

\textsuperscript{45} Bisagni, ‘Prolegomena’, 25.

\textsuperscript{46} Personal comment from David Stifter.
Bretonisations of Irish forms in Angers 477:47 uschuidou ‘watery (pl.)’ (OIr. uiscide ‘id.’) glossing Latin uapores ‘steam, vapore’ (Ang. 15b30 c), or blangas [leg. banglas] ‘pale’ (OIr. banglas ‘id.’) glossing Latin lunae blandus (Ang. 12b31a) ‘the moon (is) alluring’.

DNR 13:

Ang. 12b12a (A) lineae aerum
lines of airs

BCr. 18427 (= 1844) cota-oebat
they raise themselves up

The gloss in BCr. translates the Latin third plural form exsurgunt ‘they rise’ into Irish. Ang. 12b12a supplies the additional clarifying lineae aerum, informing the reader that the planets ‘rise’ in ‘lines of airs’.

Ordo uentorum

(CC SL 123A, 218, DNR XXVII)

Ventorum quatuor cardinales sunt. Quorum primus Septentrio, qui et Apartias dicitur, flat rectus ab axe, faciens frigora et nubes; huic dexter Circius, qui et Tracias, faciens nubes et grandines; a sinistris Aquilo, qui et Boreas, nubes constringens.

Four of the winds are the cardinals. The first of these, Septentrio [N], which is also called Aparctias, blows straight from the Pole, generating cold and clouds. On its right side is Circius [NNW], which is also called Thrascias, generating snow and hail. On its left is Aquilo [NNE], also called Boreas, which condenses the clouds.48

DNR 14:

Ang. 159 (B) nomen uenti
name of a wind

BCr. 1955 (= 192) i.e. for laím deis aniartuaid don primgáid biid circius
i.e. on the right hand-side from the north-west of the chief wind is Circius

47 Lambert, ‘Commentaires’, 120.
48 Kendall & Wallis, Bede, 90.
DNR 15:

Ang. 15¹¹⁰ (B) . i. aquas ligans
   i.e. binding waters

BCr. 19²⁵⁶ (= 19³) . i. for lati eblì anaintúaid biid aquilo
   i.e. on the left hand-side from the north-east is Aquilo

These two instances are not translations from one language to the other. They are, however, still connected. Both examples deal with names of winds. DNR 14 glosses Latin Circius, a wind coming from the north-west, which is equivalent to the Greek Θρασκίας or Θρακίας. While BCr. 19²⁵⁵ paraphrases the main text and further explains where this wind comes from, Ang. 15¹⁰⁹ only has a gloss simply stating that it is the name of a wind. DNR 15 is very similar. It is also glossing the name of a wind, i.e. Aquilo (Greek Βορέας). This wind comes from the north-east, as BCr. 19²⁵⁶ informs the reader. Ang. seems to be a pseudo-etymological gloss: Aquilo is explained as aquas ligans ‘binding waters’. The idea behind this gloss is that this wind is associated with the winter. In Vergil’s Aeneid (Book 3, line 284–85), e.g., one reads: interea magnum sol circumvolvitur annum/ et glacialis hiems Aquilonibus asperat undas.⁴⁹ The interesting line is 285 ‘and the icy winter roughens the waves with Aquilos’. Ang. 15¹¹⁰ picks up the idea that Aquilo brings cold water and mixes it with the warm water, hence ‘binds waters’. Therefore, it generates snow and hail: faciens niues et grandines, as Bede says.

De arcu

(CCSL 123A, 220–21, DNR XXXI)

Arcus in aere quadricolor, ex sole aduerso nubibusque forma– [221] tur, dum radius solis inmissus cauae nubi, repulsa acie in solem refringitur, instar cerae imaginem anuli reddentis. Qui de caelo igneum, de aquis purpureum, de aere byacinthinum, de terra gramineum trahit colorem.

The rainbow with its four colours is formed in the air from the directly opposed sun and the clouds. This happens when the tip of a ray of the sun that was beamed into a hollow cloud is repulsed and the ray is reflected back toward the sun, like wax giving back the image of a ring. The rainbow takes its fiery colour from the sky, its purple colour from the waters, its blue colour from the air, and its colour green as grass from the earth.⁵⁰

⁵⁰ Kendall & Wallis, Bede, 92.
DNR 16:

Ang. ☞方方面面 (B ☞)  
*i. facie*

i.e. face

Ang. ☞方方面面 (B)  
*derch*

face

Pen. ☞方方面面  
*i. luce*

i.e. light (abl.sg.)

The gloss in Pen. clarifies that it is the ‘light’ that is repulsed, while the two glosses in Ang. offer synonyms for the lemma in the main text.

DNR 17:

Ang. ☞方方面面 (B)  
*glas*

blue(ish green)

Pen. ☞方方面面  
*i. glasliu*

blue colour

These two glosses offer a translation of the Latin colour adjective *hyacinthinus* ‘iris, sapphire, hyacinthine’ into the vernacular. While Ang. only has *glas* ‘blue(ish) green’, Pen. has a compound of *glas* plus Old Welsh *liu* ‘colour’, hence ‘blue colour’.

*Signa tempestatum uel serenitatis*

(CC SL 123A, 223, DNR XXXVI)

... *si pallidus* DNR 18 in nigras nubes occidat ...  

... if it sets pale into black clouds ... 51

DNR 18:

Ang. ☞方方面面 (B)  
*deliu*

pale

Pen. ☞方方面面  
*i. sol*

i.e. sun

Ang. ☞方方面 translates Latin *pallidus* ‘pale’ into the vernacular. The gloss in Pen. clarifies that it is the sun which ‘sets pale into black clouds’.

51 Kendall & Wallis, Bede, 93.
De aestu oceani

(CCCL 123A, 22.4–25, DNR XXXIX)

Sed laedon a quinta et a uicesima luna inchoans, quot horis [225] accurrit tot et recurrit. Malina autem a ·xiii· et a ·xxuiii· incipiens ...

The lesser tide, beginning from the fifth and from the twentieth day of the moon, flows in as many hours as it flows out. But the greater tide, beginning from the thirteenth and from the twenty-eighth day of the moon ...

DNR 19:

Ang. 16b18 (A) .i. cundraid
i.e. neap-tide

Pen. 2b17a .i. cindraid
i.e. neap-tide

DNR 20:

Ang. 16b19b (A) rebirhi
spring-tide

Pen. 2b18b .i. riberthi
i.e. spring-tide

These four glosses offer translations for the Latin words for 'lesser tide' (i.e. when there is least difference between high and low tide) and 'greater tide'. The Old Breton lexemes occur also in the glosses to Bede’s De temporum ratione in Ang.: cuntraid (Ang. 62b07a), and rebirhi (Ang. 62b07a). The Old Irish variants of the forms are also attested in the Old Irish glosses on Bede. Old Irish contracht (u-stem) occurs once in the nominative singular in BCr. 34°42 (= 34°6) and twice in the accusative plural contrachtu in BCr. 20b17a (= 20b1) and BCr. 34°45 (= 34°8). The other form robartae (fem., iā-stem) is also attested three times: as accusative plural robart(a)i in BCr. 20b17b (= 20b2) and BCr. 34°44 (= 34°07), and as dative singular robarti in BCr. 34°41 (= 34°5).

De circulis terrae

(CCCL 123A, 229–30, DNR XLVII)

... per Rubri maris accolas, et Africae maritima ad Columnas Herculis peruenit. gnomonis [230] cunctae umbram ·xxxuiii· unciarum faciunt, ...

51 Kendall & Wallis, Bede, 93.
[...] stretches [...] through the neighbouring peoples of the Red Sea and the maritime shores of Africa to the Pillars of Hercules. [...] a gnomon of a 100 inches [99] casts a shadow of [38] inches.54

DNR 21:

Ang. 17b16a (A)  
.i. mormaou  
i.e. seasides

Pen. 3b27  
.i. loca  
i.e. places

This instance shows the importance of observing the interaction of the glosses with the main text. Looking at the two glosses in isolation, one could get the impression that they do not belong together. While Ang. 17b16a is specifically referring to ‘seasides’, i.e. places located at the sea, Pen. 3b27 only mentions ‘places’, i.e. it is an explanatory replacement by supplying a noun to the adjective ‘maritime’. The context within the underlying Latin text, however, shows that the glossator who composed the gloss found in Pen. did not see the need to specify the ‘places’, because the glosses are found over maritima ‘maritime’. So, although the glosses bear different semantic notions, they belong together.

DNR 22:

Ang. 17b25b (A)  
regim uel mensur  
extension or measure

Pen. 3b11  
.i. mensur  
i.e. measure

As already stated by Kendall and Wallis,55 the Latin text of Bede makes no apparent sense and they suggest reading c unciae instead of cunctae. According to them, ‘it is a copyist’s error at an early stage of transmission’. Furthermore, they follow Pliny in their translation where lxxvii ‘77’ is found instead of Bede’s xxxviii ‘38’. It is interesting that the two glosses seem to be translations of the original unciae ‘ounces’, because they gloss cunctae ‘whole’ with Latin mēnsurā ‘measure’ (Ang. & Pen.) and the vernacular regim ‘extension’ (only Ang.). It points in the direction that these two go back to an original gloss on the main text, before the copyist’s error.

53 Kendall & Wallis, Bede, 99, have ‘77’ here. For an explanation of the translation see the next page.

54 Kendall & Wallis, Bede, 98–99.

55 Kendall & Wallis, Bede, 99 n. 236.
**Synthesis**

According to the use of language(s), there are three different types of glosses:

1. Monolingual glosses in the vernacular (22)
2. Bilingual glosses (8)
3. Latin glosses (16)

The following table shows the occurrences of these types in the manuscripts:

<table>
<thead>
<tr>
<th></th>
<th>Vernacular</th>
<th>Bilingual</th>
<th>Latin</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ang.</td>
<td>9 (38%)</td>
<td>3 (12%)</td>
<td>12 (50%)</td>
<td>24</td>
</tr>
<tr>
<td>BCr.</td>
<td>10 (66.6%)</td>
<td>5 (33.3%)</td>
<td></td>
<td>15</td>
</tr>
<tr>
<td>Pen.</td>
<td>3 (43%)</td>
<td>4 (57%)</td>
<td></td>
<td>7</td>
</tr>
</tbody>
</table>

The table shows some peculiarities of the sample. Firstly, only Ang. features glosses of all three gloss types. Secondly, there are no Latin parallel glosses in Karlsruhe, and finally, Peniarth 540 does not transmit bilingual glosses. The latter is not surprising, since all of the six Old Welsh glosses in this manuscript contain only a single word. The absence of Latin-only glosses in Karlsruhe, however, is somewhat puzzling. Before going into details on this matter, the following table provides an overview of the distribution of the three types of glosses in the different examples:

<table>
<thead>
<tr>
<th></th>
<th>Ang.</th>
<th>BCr.</th>
<th>Pen.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Vernacular</td>
<td>Bilingual</td>
<td>Latin</td>
</tr>
<tr>
<td>DNR 1</td>
<td>x</td>
<td>x</td>
<td>x</td>
</tr>
<tr>
<td>DNR 2</td>
<td>x</td>
<td>x</td>
<td>x</td>
</tr>
<tr>
<td>DNR 3</td>
<td>x</td>
<td>x</td>
<td>x</td>
</tr>
<tr>
<td>DNR 4</td>
<td>x</td>
<td>x</td>
<td>x</td>
</tr>
<tr>
<td>DNR 5</td>
<td>x</td>
<td>x</td>
<td>x</td>
</tr>
<tr>
<td>DNR 6</td>
<td>x</td>
<td>x</td>
<td>x</td>
</tr>
<tr>
<td>DNR 7</td>
<td>x</td>
<td>x</td>
<td>x</td>
</tr>
<tr>
<td>DNR 8</td>
<td>x</td>
<td>x</td>
<td>x</td>
</tr>
<tr>
<td>DNR 9</td>
<td>x</td>
<td>x</td>
<td>x</td>
</tr>
<tr>
<td>DNR 10</td>
<td>x</td>
<td>x</td>
<td>x</td>
</tr>
<tr>
<td>DNR 11</td>
<td>x</td>
<td>x</td>
<td>x</td>
</tr>
<tr>
<td>DNR 12</td>
<td>x</td>
<td>x</td>
<td>x</td>
</tr>
</tbody>
</table>

56 It should be stressed here that the following numbers, unless otherwise stated, always refer to the number of glosses on *De natura rerum* only, and not to the entire manuscripts.

57 The beginning of this gloss remains unclear; however, as stated above, it is very likely that it should be read as insular *is e’it is*. Therefore, it can be interpreted as being a bilingual gloss featuring Irish.
This table shows that all the instances of parallel glosses involve Ang., and that BCr. and Pen. do not have any corresponding glosses. Pierre-Yves Lambert\(^{58}\) mentions that DNR 19 and 20 have parallels in BCr., where the same Latin lexemes, i.e. *ledones* and *malinas*, although in a different context, are glossed in Old Irish with *i. contrachtu* (BCr. 34\(^{4}45 = 34\^{4}8\) and *i. robarti* (BCr. 34\(^{4}44 = 34\^{4}7\). Since these instances, however, are not found in the same position of the underlying text and therefore, according to the definition given above, do not form parallel glosses, they are excluded from this list.

Returning to the Karlsruhe manuscript, one might get the impression that there are no Latin glosses to this version of *De natura rerum*. This is not the case. The following numbers, however, are still noteworthy. Out of the fifty-seven glosses in total, twenty-five or 44\% are monolingual vernacular, eleven or 19\% are bilingual, and twenty-one or 37\% are in Latin. The percentage of glosses featuring the vernacular is therefore higher than the one of Latin glosses: 63\% vs. 37\%. This is remarkable, since the general picture drawn from most of the other Celtic glossed manuscripts points to it being the other way around. Unfortunately, definite numbers to support this argument are scarce, since, as already emphasised by Jacopo Bisagni, in most of the editions ‘the glosses written only in Latin were generally omitted’\(^{59}\). Therefore, one has to rely on estimations until complete critical editions of the glossed corpora are available.

One of the already existing exceptions are the St Gall glosses to Priscian, which are published as an on-line edition featuring both the Old Irish and the Latin

\(^{58}\) Lambert, ‘Commentaires’, 121.

glosses. Rijcklof Hofman counted 9,412 interlinear and marginal glosses in the codex, and ‘some 3,478 (37%) of these contain Old Irish’. This is exactly the opposite of what is observable in the Karlsruhe glosses on Bede’s *De natura rerum*. This discrepancy could, however, also be caused by the different genres of texts which these glosses belong to. It is therefore necessary to compare the findings with the other two manuscripts dealt with in this article. An approximate counting of the glosses in question in Angers 477 (for which no absolute numbers are available yet) gives a similar result as St Gall, with the majority of glosses being in Latin. The other manuscript dealt with in this article, i.e. Peniarth 540, only has six glosses in the vernacular, which are roughly 4% of all the glosses. This codex, however, dates to the twelfth century and is therefore younger than the other two. Another contemporary manuscript with glosses on Bede is the ‘Vienna Bede’. This fragment contains parts of Bede’s *De temporum ratione* with 178 glosses. Around 52% of them are Latin, and 44% are Irish or bilingual, the remaining 4% are glosses which are illegible due to heavy damage of the manuscript. Although the majority of glosses are still in Latin here, it features a higher number of vernacular glosses as well. Nonetheless, the Karlsruhe manuscript seems to be special because of its high percentage of glosses in the vernacular.

Returning to the sample of the parallel glosses, it is also noticeable that a third of the glosses of Karlsruhe are bilingual. Since in the sample discussed in this article, all of the examples of BCr. feature the vernacular, a comparison with the number of monolingual vernacular/bilingual glosses in Angers imposes itself. There are twelve, out of which three or 25% are bilingual. The ratio of vernacular vs. bilingual glosses is therefore 3:1, compared to 2:1 in Karlsruhe. While the numbers are also similar for all the monolingual vernacular/bilingual glosses transmitted in the latter: twenty-five or 69% monolingual vernacular vs. eleven or 31% bilingual ones, it changes remarkably for Angers: eighty-four or 87% monolingual vernacular vs. thirteen or 13% bilingual glosses. The percentage of bilingual glosses is therefore higher within the glosses in parallel transmission than in the number of glosses which are specific to one manuscript. A comparison with Jacopo Bisagni’s results in his study of code-switching in the Old Irish glosses shows that the overall numbers of Angers are similar to his findings in his Old Irish sample: 2,631 glosses in total with 276 or 10.5% having bilingual features. The following table, to which

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62 This holds still true even if the gloss of Ang. in DNR 7 is interpreted as being Latin.
63 His sample is taken from seventeen collections published in the *Thesaurus*, which are listed in footnote 54 on p. 21 of ‘Prolegomena’.
the ‘Vienna Bede’ (= BVi.) is also added, shows the distribution of vernacular vs. bilingual glosses:

<table>
<thead>
<tr>
<th></th>
<th>Vernacular</th>
<th>Bilingual</th>
</tr>
</thead>
<tbody>
<tr>
<td>BCr.</td>
<td>69%</td>
<td>31%</td>
</tr>
<tr>
<td>Ang.</td>
<td>87%</td>
<td>13%</td>
</tr>
<tr>
<td>BVi.</td>
<td>87%</td>
<td>13%</td>
</tr>
<tr>
<td>Old Irish</td>
<td>89.5%</td>
<td>10.5%</td>
</tr>
</tbody>
</table>

The sample chosen for this article is rather small, but it still shows a high number of bilingual glosses in the Karlsruhe version of *De natura rerum*. The question whether or not the vernacular or bilingual glosses in BCr. are translations from Latin archetypes cannot be answered with certainty. For some examples given above this seems very likely; for others, however, the lack of parallel glosses in the other manuscripts makes reasonable considerations impossible. Further work on the textual history and tradition of manuscripts, and especially on glosses to Bede’s *De natura rerum* in other manuscripts may, however, provide valuable insights into this matter.

**Conclusion**

The foregoing discussion has shown the importance of including the Latin glosses for a better understanding of the Celtic glossing tradition. Furthermore, the glosses should not be discussed in isolation. Together with the Latin main text, they form a single entity, and the glosses and the underlying text interact on many different levels. The integration of all the glosses in future critical editions is a desideratum in order to fully fathom this complexity. Comparison with other glossed manuscripts of the same primary text offers additional possibilities, e.g., interpreting illegible parts.

The given sample has shown that the Karlsruhe glosses on Bede’s *De natura rerum* have a remarkably high number of vernacular glosses. The status of Irish compared to Latin seems to have been relatively high in the scriptorium in which the manuscript was copied/written. In his list of manuscripts of *De natura rerum*, Charles W. Jones states that BCr. is ‘at all events [...] not related to early French or Swiss manuscripts’. The evidence of the parallel glosses presented in this paper, however, shows that the glosses BCr. and Ang. must at least have one common source. The glosses further show at least some Irish influence on Ang. (and the Breton language itself), e.g., *gablrinn* in Ang. 12\^310c or the beginning of Ang. 11\^22c. Future research on the parallel glosses in other manuscripts will further elucidate the history of transmission.

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65 These are Jacopo Bisagni’s numbers.