

Chapter 6

The Ends and Futures of Bede's *De temporum ratione*

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The imminence of history's end weighed heavily on Bede's mind.¹ He did not doubt, following the teachings of St Augustine of Hippo, that God alone knew the exact time of the End. But his hero Pope Gregory the Great had taught the English that there was little time left, and speculation was rife that chronological traditions might reveal something about the timing of the Last Judgement.² Bede's eschatological thought, alongside hints about some of the arguments he had with contemporaries, is revealed in many of his writings, including his commentary on Revelation, the 'Letter to Plegwine' and his wide-ranging computistical handbook, *De temporum ratione*.³ At the very end of this last work (Chapters 66–71) Bede set out one of the clearest articulations of Augustinian apocalyptic thought, and in doing so gave the Carolingian world one of its most popular resources on apocalyptic time. Yet, despite the *prima facie* situation implied by one intellectual 'authority' approving the thought of another 'authority', this was a notably controversial thing for Bede to have done and it led to argument both at home and in continental Europe. It is the purpose

¹ My thanks to the AHRC, whose award of a Fellowship for 2011/12 made this essay and other things possible. A significant portion of this essay was written in Paris in the Salle de manuscrits occidentaux in the Bibliothèque nationale, whose staff were always helpful. I also thank the staff in the Handschriftenlesesaal in Berlin's Staatsbibliothek and at the Manuscript Reading Room in the British Library. I am eternally grateful to Faith Wallis for asking me difficult questions about *De temporum ratione* and helping me to answer them; and to Peter Darby, Jo Story and Immo Warntjes for their comments and advice.

² Gregory the Great, *Registrum epistularum* (ed. D.L. Norberg, CCSL 140, 140A), 11.37; Bede, *Historia ecclesiastica* (eds B. Colgrave and R.A.B. Mynors, *BEH*), 1.32. On Gregory's eschatology see C. Dagens, 'La fin des temps et l'Église selon Saint Grégoire le Grand', *Recherches de science religieuse*, 58 (1970), 273–88 and R.A. Markus, *Gregory the Great and his world* (Cambridge, 1997), 51–67.

³ See now P.N. Darby, *Bede and the end of time* (Farnham, 2012).

of this essay to ask what Bede's vision of the future in *De temporum ratione* really was and why it produced the reactions it did.

The background was complicated. Two related early Christian traditions asserted that the world would endure for only 6,000 years in imitation of the Creation Week, ending either with Judgement Day (the apocalyptic view) or the inauguration of a thousand-year-long earthly reign of Christ and his saints (the millenarian or millennialist view). The first argument many condemned, including Augustine, for denying divine mystery, while the second was widely dismissed for relying on an all-too-literal reading of Revelation 20.4–7 which prophesied a thousand-year-long reign of Christ and his saints. A pressing difficulty in the early Middle Ages was the proximity of Y6K, particularly in the case of Bede because the dominant reckoning, established by Eusebius and Jerome, would have seen it fall in or around 800 (AMII). Richard Landes, in an essay published in 1988, amassed considerable evidence to prove that interest in the apocalyptic tradition was widespread at the time (a view I support) and that chronographical traditions were changed in order to sidestep the issue (changes I argue were driven by other concerns).⁴ The impression of sidestepping stems from Bede's work on two scores: first, because when he compared the Hebrew and Greek versions of the Old Testament he discovered that the Greek added 1,257 years, and so he proposed a new, lower world age (AMIII); and second, he started to popularise for the first time dating events relative to the Incarnation (AD-dating) rather than to the age of the world, most notably in the *Historia ecclesiastica*. Bede never stated that these were deliberately anti-apocalyptic moves on his part, and indeed in the first case his main concern seems to have been for scholarly accuracy. We must be careful not to subordinate all relevant debates to apocalyptic/anti-apocalyptic discourses, when some such as those in chronology and computus were important in and of themselves. *De temporum ratione*, as we shall see, can be a useful case study for helping to disambiguate some of the issues involved here.

From the standpoint outlined above, of course, it will be as important to understand the reception of Bede's work as much as what he set out to do. Bede often wrote argumentatively, in order to persuade audiences negotiating a

⁴ R. Landes, 'Lest the Millennium be fulfilled: apocalyptic expectations and the pattern of western chronography, 100–800 CE', in *The use and abuse of eschatology in the Middle Ages*, eds W. Verbeke, D. Verhelst and A. Welkenhuysen (Leuven, 1988), 137–211; J.T. Palmer, 'Calculating time and the end of time in the Carolingian World, c. 740–820', *English Historical Review*, 126, 523 (2011), 1307–31; J.T. Palmer, 'The ordering of time', in *Abendländische Apokalypik. Kompendium zur Genealogie der Endzeit*, eds L. Schlöndorff, C. Zolles, C. Feik, M. Zolles and V. Wieser (Berlin, 2013), 605–18.

heterogeneous intellectual landscape, and not everyone agreed with him or used his work uncritically. The standard modern editions are useful for grounding a study of the reception of *De temporum ratione* but only up to a point. When Charles Jones compiled his edition for Corpus Christianorum in 1980, he reprinted his own incomplete 1943 text (Chapters 1–65) with Theodor Mommsen's 1898 edition of the chronicle and end chapters (Chapters 66–71), adding also a transcription of the Laon-Metz glosses of 873/4.⁵ Mommsen had used significantly fewer manuscripts than Jones had, which makes the text's critical apparatus problematic, even if it was supplemented by the descriptions of some manuscripts and their variations.⁶ In 1999 Faith Wallis drew renewed attention to the variation in the way even just the chronicle was treated by medieval authors and copyists, who often edited, updated, replaced or omitted it.⁷ Jones and Mommsen knew and discussed some of these issues, of course, but their work was to establish the text, not to work through the wider implications for early medieval communities. In this essay, therefore, after analysing Bede's work itself, I will turn to a sketch of the different ways in which *De temporum ratione* was treated in the century or so after his death. In doing so, we will gain a better insight into the contribution of *De temporum ratione* to eschatological thought in the eighth and ninth centuries.

The End of Time and *De temporum ratione*

It is often underappreciated how much of a battle for the future Bede faced when it came to computus.⁸ The Synod of Whitby in 664, at which the 'Roman reckoning' for calculating future Easters was proclaimed king, was less of an absolute victory than some have assumed on the basis of the later accounts.⁹ On

⁵ Bede, *De temporum ratione*, ed. C.W. Jones, CCSL 123B, from C.W. Jones, *Beda's opera de temporibus* (Cambridge, MA, 1943) and Bede, *Chronica maiora*, ed. T. Mommsen, MGH Auct. ant. 13 (Berlin, 1888), 247–327.

⁶ Mommsen, MGH Auct. ant. 13, 231–40.

⁷ F. Wallis, *Bede: The reckoning of time*, revised 2nd edition (Liverpool, 2004), 363–4.

⁸ On Bede's (limited) place in the computistical debates of the seventh and eighth centuries see I. Warntjes, *The Munich computus: text and translation. Irish computistics between Isidore of Seville and the Venerable Bede and its reception in Carolingian times* (Stuttgart, 2010), xlvii–li.

⁹ Bede, *Historia ecclesiastica*, 3.25; Stephen of Ripon, *Vita Wilfridi* (ed. B. Colgrave, *Life of Bishop Wilfrid*), 10. A good critical summary, with rich footnotes, is in Warntjes, *The Munich computus*, xxxviii–xli. More old-fashioned recent accounts include D.A.E. Pelteret, 'The issue of apostolic authority at the Synod of Whitby', in *The Easter controversy of late antiquity and the early Middle Ages*, eds D. Ó Cróinín and I. Warntjes (Turnhout, 2011), 150–72; C. Corning, *The*

the one hand, of course, Bede was open about how the opponents of the Roman reckoning persisted in their ‘heresy’, as he told the story of how the Picts and the community in Iona persisted in their attachment to the 84-year Easter table with *saltus lunae* every fourteen years (lunar limits *xiv* to *xx*, calendar limits 26 March to 23 April), at least until Ecgerht converted them to the Roman reckoning in 716 and Bede’s own narrative runs out of steam.¹⁰ This was, however, only half the story. Bede and Stephen of Ripon, with half a century’s hindsight, proclaimed a clear and unambiguous victory for the ‘Roman’ Easter propounded by Dionysius Exiguus (lunar limits *xv* to *xxi*, calendar limits 22 March to 25 April) and this is the version of events which has naturally formed the basis of the standard narrative of events. Nevertheless, there was another ‘Roman’ reckoning in place, based on the tables of Victorius of Aquitaine (lunar limits *xvi* to *xxii*, calendar limits 22 March to 21 April). Its fate in this story is less clear but its adherents remained active: new Victorian computi were composed in Irish circles in 689 and 699, and as late as 764 in the Rhineland, so Bede’s complaint about *amatores Victorii* (‘lovers of Victorius’) in 725 is not surprising.¹¹ Despite the ‘resolution’ at Whitby, the international networks in which computus flourished meant that Bede never operated in a world where the pattern of future Easters was entirely set by a Dionysiac framework.

The significance of computistical debates to Bede’s apocalyptic thought are well known. The first round was conducted in and around AD 703, when Bede composed *De natura rerum*, *De temporibus* and *Expositio Apocalypseos* as a trilogy outlining the nature of past, present and future time.¹² The timing may not be incidental or determined entirely by the ‘approach’ of the year 6000,

Celtic and Roman traditions: conflict and consensus in the Early Medieval Church (New York, NY; Basingstoke, 2006); and G. Declercq, *Anno Domini: the origins of the Christian era* (Turnhout, 2000), 155–6.

¹⁰ Bede, *Historia ecclesiastica*, 5.22.

¹¹ Bede, *De temporum ratione*, 51; *Quaestiones de computo Austrasiae* (ed. A. Borst, MGH QQ zur Geistesgesch. 21.1, 466–508). See also the evidence discussed by I. Warntjes, ‘A newly discovered prologue of AD 699 to the Easter table of Victorius of Aquitaine in an unknown Sirmund manuscript’, *Peritia*, 21 (2010), 255–84 at 267 and in his *The Munich computus*, lviii; M. Ohashi, ‘The Easter Table of Victorius of Aquitaine in Early Medieval England’, in *The Easter controversy*, eds Warntjes and Ó Cróinín, 137–49 and her ‘Theory and history: an interpretation of the Paschal Controversy in Bede’s *Historia ecclesiastica*’, in *Bède le Vénérable entre tradition et postérité*, eds S. Lebecq, M. Perrin and O. Szerwiniack (Lille, 2005), 177–85. It should be borne in mind that Victorius’s work was not technically confused or deficient, as it is often portrayed, but perhaps more theologically controversial because of its lunar limits.

¹² Darby, *Bede and the end of time*, esp. 32–3; P.N. Darby, ‘Bede’s time shift of 703 in context’, in *Abendländische Apokalyphtik*, eds Wieser, Zolles, Feik, Zolles and Schlöndorff, 619–40 – my thanks to Dr Darby for making his work accessible to me in advance of publication.

because there was much computistical work to be done at precisely that time. Dionysius's original table had run for 95 years (or five 19-year lunar cycles) up to 626, leading Felix of Squillace in 616 to prepare an extension up to 721 – all of which meant that in 703 users had entered the last 19-year lunar cycle of the available tables and new ones needed to be composed. Indeed, in the circle of Bede's friend Willibrord, this work was already underway because the table he took to the Continent from Rath Melsigi concluded in 702, and 703 became a useful base point for Easter calculations and continental annals.¹³ The earliest extant efforts to establish a correlation between AD and the Eusebian AM dating, both Insular, also appear around this time in a Victorian Easter table of AD 699 and an argumentum of AD 703.¹⁴ Bede's early works on time stand in this context as part of a lively and international debate about Easter tables and chronology, about whether to use Dionysius or Victorius, and how AD and AM dates related to each other, all at a time when future Easters needed to be mapped out by non-Victorian factions. Some of the debate related to apocalyptic thinking about the year 6000,¹⁵ but it is important to recognise that there were many other issues at stake as the whole of Christian time was reconceptualised and recalculated.

¹³ Paris, Bibliothèque nationale, lat. 10837, fol. 44r, which is a single leaf of an Easter table running from AD 684 to AD 702 and likely written in Rath Melsigi in Ireland (D. Ó Cróinín, 'Rath Melsigi, Willibrord, and the earliest Echternach manuscripts,' *Peritia*, 3 (1984), 17–49, at 29–30 and Warntjes, *The Munich computus*, xc–xci and n. 242). The first continuation, from AD 703 to AD 759, is on fols 40v–41v. Note also the table-argumentum of 703 in London, British Library, Cotton Caligula A xv, fols 110r–117v – see Warntjes, *The Munich computus*, 311 and 337–8; and J.T. Palmer, 'Computus after the Paschal Controversy of AD 740', in *The Easter controversy*, eds Warntjes and Ó Cróinín, 213–41 at 227–8; and C.W. Jones, 'Two Easter tables,' *Speculum*, 13 (1938), 204–5. The best example of annals starting in 703 is *Annales Laureshamenses* (ed. E. Katz, *Annalium Laureshamensium editio*), see page 28. Most other 'minor' annals start in 708 but this would still be within the first 19-year cycle inaugurated by a 703 table (e.g. *Annales Tiliiani*, ed. G.H. Pertz, MGH SS 1, at 6, 8). On Willibrord's possible relationship with early annal-keeping see F. Kurze, 'Die karolingischen Annalen des achten Jahrhunderts,' *Neues Archiv der Gesellschaft für Ältere Deutsche Geschichtskunde*, 25 (1900), 293–315 at 296.

¹⁴ 'Victorian prologue' (ed. Warntjes, 'Newly Discovered Prologue,' 271–3) at 271; *Liber de computo* (ed. J.P. Migne PL 129, cols 1273–372), ch. 83, at col. 1314. It is interesting that the synchronisation of AD 703 with AM 5903 is not typical of Iro-Merovingian calculations based on Victorius, which would have considered the year to be AM 5904.

¹⁵ Warntjes, 'A newly discovered prologue,' 261 notes the apocalyptic resonance in the 'Victorian prologue' of 699. Ohashi, 'Victorius,' 147–9 suggests that Bede was quiet about Victorius in 664 because of an attempt to be silent about millenarian heresy but this would have been a highly inefficient rhetorical strategy for Bede to use given that he explicitly attacked both Victorius and millenarianism in his writings.

It was in this context that Bede was bogged down in controversy over how much time was left in the future. After he wrote *De temporibus*, he was drawn into a number of conflicts, some public, for his proclamations about a revised age of the world which his opponents, but not Bede, thought relevant to predicting the time of the End. Augustine of Hippo had once pointed out that some lengths of time in the Greek Septuagint and the Hebrew (and therefore the Latin Vulgate) did not match, and it seems that when some scholar(s) in Ireland worked through these mistakes, it was found that 1,257 years could be deducted from the Eusebian reckoning which calculated 5,199 or 5,200 between Creation and the Incarnation.¹⁶ One way or another, steeped in Irish computistical learning, Bede became a leading proponent of this point of view. After he set out his workings in the short chronicle in *De temporibus*, he was apparently accused of heresy at Bishop Wilfrid's table for denying that Christ was born in the Sixth Age (i.e. the sixth millennium). He responded at length in his *Epistola ad Pleguinam* – controversial and notably little circulated compared to his other works – and again in an expanded chronicle-argument in Chapter 66 of *De temporum ratione*, relying like many early medieval chronographers on evidence and numbers rather than simple assertion.¹⁷ Bede's holistic approach to the structures and mysteries of time meant that this was a discussion worth spelling out in full and more than once, but it was a battle.

The problem Bede faced was tradition and authority. In the *Epistola*, Bede referred to an old text by a 'chronographer heresiarch' he had read as a boy, which had proclaimed that there were 5,500 years from Creation to the Incarnation (the eleventh hour), and 300 of the 500 years left after that passed.¹⁸ It is, as Wallis noted, significant that the author was identified as a 'chronographer' rather than any other kind of writer such as an exegete – the structure of time was important to the debate. Bede lamented that he had often had arguments with his brothers (*fratres*), let alone with the rustics (*rustici*), in which the view was expressed that the world would end after 6,000 years or even after 7,000. The '7,000' suggests that Eastern learning was as much in play as conservative Latin ideas, which

¹⁶ Augustine, *De civitate Dei* (eds B. Dombart and A. Kalb, CCSL 47, 48), 15.13 (but complicated by 18.43). D.P. McCarthy, 'Bede's primary source for the Vulgate chronology in his chronicles in *De temporibus* and *De temporum ratione*', in *Computus and its cultural context in the Latin West, AD 300–1200*, eds I. Warntjes and D. Ó Cróinín (Turnhout, 2010), 159–89.

¹⁷ A.A. Mosshammer, *The Easter computus and the origins of the Christian era* (Oxford, 2008). See also P. Verbist, *Duelling with the past: medieval authors and the problem of the Christian era, c. 990–1135* (Turnhout, 2010). For a fuller discussion of *Epistola ad Pleguinam*, see Darby, *Bede and the end of time*, 35–64.

¹⁸ Bede, *Epistola ad Pleguinam* (ed. C.W. Jones, CCSL 123C, 617–26), 14.

is not surprising given the syllabus of the Canterbury School under Hadrian and Theodore in the late seventh century – which itself may have produced a text, *Laterculus Malalianus*, in which the ‘7,000 years’ were advocated and the ‘Irish’ preference for placing the Incarnation so early in the world’s history was condemned.¹⁹ At least there was likely to be sympathy for the Dionysiac ‘Greek’ Easter from that corner. On the Continent, it is notable that people adopted Victorius’s tables to support the Eusebian age of the world, while supporters of Dionysius tended to proclaim the new ‘Hebrew Truth’ calculation; and the same could have been true amongst the English.²⁰ The intertwining of different ideas and texts certainly made challenging any individual elements of chronological tradition hard.

These arguments in the background to *De temporum ratione* are scarcely hidden by Bede, who directed comments at them across the text.²¹ In his preface, he mentions how the *fratres* – no doubt the same ones he had been at odds with in the *Epistola* – had ‘persuaded me to discuss certain matters concerning the nature, course and end of time’.²² Several sections of the book were structured around pedagogic devices ensuring its popularity in early medieval classrooms – and yet one might also wonder if part of Bede’s original intention was to patronise those peers with whom he fought over matters temporal.²³ There is something barbed about his comment that ‘They [the *fratres*] said they [*De natura rerum* and *De temporibus*] were much more concise than they would have wished’.²⁴ Bede’s ‘strategic sarcasm’ – to use Wallis’s phrase – in griping at ‘those who do not know how to calculate’ later in *De temporum ratione* may also have been

¹⁹ *Laterculus Malalianus* (ed. J. Stevenson, *The ‘Laterculus Malalianus’ and the school of Archbishop Theodore*), 4; Darby, *Bede and the end of time*, 51–64.

²⁰ Palmer, ‘Calculating time’, 1310. See Victorius, *Prologus* (ed. B. Krusch, *Studien zur christlich-mittelalterlichen Chronologie. Die Entstehung unserer heutigen Zeitrechnung*, 17–26), ch. 7. The point is underlined firmly by the Easter table in Leiden, Universiteitsbibliothek, Scaliger 28 (Flavigny, c. 816), fols 2r–21v, which contains parallel Dionysiac and Victorian tables, the former annotated with AMIII and the latter AMII.

²¹ Bede, *De temporum ratione*, preface; 66, lines 1–47; and 67, lines 1–60.

²² Bede, *De temporum ratione*, preface, lines 6–7: ‘suadebantque mihi latius aliqua de temporum statu, cursu, ac fine disserere’.

²³ On the place of *De temporum ratione* in Bede’s teachings see now C.B. Kendall, ‘Bede and education’, in *The Cambridge companion to Bede*, ed. S. DeGregorio (Cambridge, 2010), 99–112 at 105 and Wallis, ‘Bede and science’, in *The Cambridge companion to Bede*, ed. DeGregorio, 113–27 at 121–5, especially the comment at 121 that ‘the Plegwine episode inspired him to raise the stakes, so to speak, by articulating a vision of *computus* that actually accentuated its theological importance, and confronted the issue of eschatology squarely’.

²⁴ Bede, *De temporum ratione*, preface, lines 4–5: ‘dicebant eos brevius multo digestos esse quam vellent’.

aimed as much at those who should know better rather than just his students in the classroom.²⁵ Indeed, in discussing leap years and the Zodiac, he later attacks the man ‘who did not learn to recognise the constellations in his elementary schooling’.²⁶ Bede was not just addressing a classroom – he was addressing a disunited intellectual landscape in general. We cannot really imagine that the *amatores Victorini* were his students, nor whoever was the target of his defence of Dionysius over the dating of the Passion.²⁷ *De temporum ratione* should therefore be understood as a polemic as well as an educational guide.

The context of the arguments in Jarrow should shape how we think about the long world chronicle (Chapter 66) which follows the computistical section of *De temporum ratione*. The way in which Bede outlined the case for the low world age was not so much ‘historical writing’ as labouring the point that Eusebian chronology was wrong and that therefore recent history needed re-synchronising to a reformed reckoning.²⁸ As a statement of the idea, the chronicle in *De temporibus* was probably sufficient, but this too must have been ‘too brief’ for his critics. Bede’s efforts to flesh out the Sixth Age were irrelevant for confirming the age of the world itself, yet it had the important function of synchronising various strands of time, including English history and world and Dionysiac chronologies.²⁹ We must not misunderstand Bede’s point here as it relates to apocalypticism. The chronicle was not ‘anti-apocalyptic’ per se, as Bede had argued that measured time was essentially human and arbitrary in its meaning, so the chronicle proved nothing about apocalyptic expectations except that Bede’s enemies had committed a double mistake by misappropriating faulty chronological material.³⁰ Bede’s vision is signalled in the discussion of different forms of time reckoning, in which he follows Irish tradition in dividing time into that in accordance with nature, (human) custom and (divine) authority

²⁵ *De temporum ratione*, 19 entitled ‘item de eodem si quis computare non didicit’; Wallis, *Reckoning of Time*, 293. Jones, *Beda Opera de temporibus*, 135–6 also points out the possibility that *De temporum ratione* was to be used outside the classroom, but steps back from associating the text with the controversies past the preface.

²⁶ *De temporum ratione*, 38, line 42: ‘qui coeli signis intendere puerili in schola non didicit’.

²⁷ *De temporum ratione*, 47 and Wallis, *Reckoning of Time*, 336–8. See also Bede’s thinly-veiled attack on ‘some people’ who explain the lunar 19-year cycle through the omission of lunar bissextile days in *De temporibus* (ed. C.W. Jones, CCSL 123C, 585–611), 11, lines 11–15, meaning Irish computists (cf. *Computus Einsidlensis* – Einsiedeln, Stiftsbibliothek, 321 (647), 82–125 at 114–18; and *The Munich computus*, ch. 60, ed. Warntjes, 256–67).

²⁸ Compare A. Rabin, ‘Historical re-collections: rewriting the world chronicle in Bede’s *De temporum ratione*’, *Viator*, 36 (2005), 23–39.

²⁹ Bede, *De temporum ratione*, 66.

³⁰ Explicitly stated in *De temporum ratione*, 67.

– separating chronology and God's Judgement.³¹ Bede could also afford in Chapter 67 to challenge his critics not to read his work, explicitly because it was a matter of human opinion, not doctrine.³² The chronicle, then, was not an argument about eschatology but more strictly about chronology. Whether it was always understood as such, we shall see later, is doubtful, precisely because of the apocalyptic anxieties of the eighth century and the misappropriation of chronographical material.

The arbitrariness is emphasised throughout the last section of *De temporum ratione*. Chapter 68, specifically, is entitled 'Three *opinions* [*opiniones*] of the faithful as to when the Lord will come' (my emphasis) and, although it is largely an extended quotation from Augustine's letter to Hesychius, it is the part that asserts that whether people expect Judgement sooner or later, they are just guessing and can only be free from error if they proceed with patience.³³ It was not, in other words, his use of the 'Hebrew Truth' which undermined his opponents' beliefs in the world enduring 6,000 years or 7,000, it was the inscrutability of God's plan itself.³⁴ This extended to the mysteries of Scripture. Daniel, for instance, was understood to have given the reign of Antichrist 1,290 days, but he said that the faithful would have to wait 1,335 days (Daniel 12.11–12).³⁵ Bede repeated Jerome's hypothetical explanation here: God might decide to test the patience of his saints. Why the difference in the numbers, however, was not certain, and this was the one example introduced by Bede as one of only two 'certain' signs of the End, the other being the conversion of the Jews. As a rhetorical strategy it reinforced Bede's first strong argument against his opponents, which was that there was no Scriptural basis for their beliefs other than a weak inferred parallel between the Creation Week and World Ages.³⁶ Indeed, Bede left this argument to undermine millenarian beliefs too rather than to repeat his ambiguous Tyconian–Augustinian attack on a literal reading

³¹ *De temporum ratione*, 2, which one should compare to *De ratione computandi* (ed. D. Ó Cróinín, *Cummian's letter 'De controversia Paschali' and 'De ratione computandi'*), ch. 6 and *Dialogus de computo Langobardiae* (ed. A. Borst, MGH QQ zur Geistesgesch 21.1, 433–61), ch. 8. On the complex web of ideas see F. Wallis, 'Si naturam quaeras: re-framing Bede's science', in *Innovation and tradition in the writings of the Venerable Bede*, ed. S. DeGregorio (Morgantown, WV, 2006), 65–100, where the stress is on the harmony of the reckonings.

³² Wallis, *Reckoning of Time*, 367; Bede, *De temporum ratione*, 67 and also preface.

³³ Bede, *De temporum ratione*, 68: 'De trina opinione fidelium quando veniat Dominus'; Augustine, *Epistola* 199 (ed. A. Goldbacher, CSEL 57, 243–92), ch. 13.

³⁴ It is natural to compare here Augustine, *De civitate Dei*, 18.53, although it is curious that Bede himself did not appeal to the authority of this statement.

³⁵ *De temporum ratione*, 69, lines 46–58.

³⁶ *De temporum ratione*, 67, lines 23–34.

of Revelation 20.4–7, which prophesied a thousand-year long reign of Christ and his saints.³⁷

Bede's arguments were philosophically far-reaching. While he was not advocating the view that the future was indefinitely open-ended, he felt that it was important to remain agnostic about time's relationship with infinity as well as its End. In Ireland, '*saeculum*', the word most commonly used for 'World Age', was defined by a false etymology from the cultivation of six (*sex* and *colo*), but also as a representation of infinity.³⁸ This is in a limited sense consistent with Augustine's Tyconian interpretation of Scripture: 'certainly a thousand years stands for all the years of this *saeculum*, so that, by a perfect number, the fullness of time is denoted'.³⁹ It is observed in other Irish treatises, in both the *Munich computus* and *De ratione computandi*, but another sense is teased out by the author of the *Dialogus de computo Langobardiae*: 'With the completion of the world, there will not be seasons, but eternity without movement, just as there was before this, before it was, before the world came into being'.⁴⁰ Such comments resonate with Bede's words at the end of *De temporum ratione* when, having discussed how there will be no tempestuous sea at the Last Judgement, he wrote 'so our little book concerning the fleeting and wave-tossed course of time comes to a fitting end in eternal stability and stable eternity'.⁴¹

³⁷ See Bede's *Expositio Apocalypseos* (ed. R. Gryson, CCSL 121A), 35, lines 53–9, in which he repeats the Tyconian–Augustinian line that the thousand years begins with Christ and, in a beautifully ambiguous phrase, 'by a certain manner is congruent with this present time' ('modo quodam tempori huic congruo') – thus not clearly ruling out an apocalyptic Y1K. See J. Fried, 'Die Endzeit fest im Griff des Positivismus? Zur Auseinandersetzung mit Sylvain Gouguenheim', *Historische Zeitschrift*, 275 (2002), 281–321 at 311.

³⁸ Compare Isidore, *Etymologiae* (ed. W.M. Lindsay, *Etymologiarum sive originum libri XX*), 5.38.1: 'Saecula generationibus constant; et inde saecula, quod se sequantur: abeuntibus enim aliis alia succedunt'. See also Alcuin, *Epistola* 163 (ed. E. Dümmeler, MGH Epp. 4, 263–5).

³⁹ Augustine, *De civitate Dei*, 20.7, lines 64–5: 'certe mille annos pro annis omnibus huius saeculi posuit, ut perfecto numero notaretur ipsa temporis plenitudo'. Compare also Primasius, *Commentarius in Apocalypsin* (ed. A.W. Adams, CCSL 92), 5.20, lines 1–31 where Primasius relates this to the problem of 6,000 years.

⁴⁰ *Dialogus de computo Langobardiae*, 4: 'Et consummato saeculo non erunt tempora, sed aeternitas erit sine motu, sicut antea fuit, antequam fuit, antequam fieret saeculum'. *The Munich computus*, 43; *De ratione computandi*, 60. Note also Hrabanus Maurus, *De computo* (ed. W.M. Stevens, CCCM 44, 205–321), 95.

⁴¹ Bede, *De temporum ratione*, 71, lines 91–3: 'ergo noster libellus de volubili ac fluctuaguo temporum lapsu descriptus oportunitate de aeterna stabilitate ac stabili aeternitate habeat finem'. For the metaphor of the sea compare also Gregory the Great, *Registrum epistularum*, 9.228 (to Leander of Seville), another letter to Leander of Seville preserved at the beginning of Gregory's

Bede's thinking here was not exactly in line with Augustine's.⁴² After his Augustinian assault in *De temporum ratione*, Bede took time in Chapter 70 to outline his view that the upper heavens and their celestial bodies would not be destroyed, only the Earth and its atmosphere. As Wallis rightly surmised, '[s]ince the Sun and Moon are within the world of time, and essentially the reckoners of time, Bede's insistence on their survival must say something about the relationship of time to eternity ... Creation, and even time, are caught up into eternity, not destroyed by it.'⁴³ Yet Augustine had been at pains to divorce the mysteries of time from the measurement of the heavens. Time was essentially something which the soul experienced internally and subjectively; the Moon could (in theory) stand still without time stopping. In Ireland, carried along by a post-Isidorian concern for order, the intellectual framework was quite different. Natural and artificial reckonings of time were given centre stage – indeed, Easter calculations were impossible otherwise. The Irish Augustine, writing in 654, even appealed to Easter tables to undermine Augustine's use of Joshua 10.13 to deny that time resided in the movements of the Heavens.⁴⁴ To close a treatise on the science of time with consideration of Judgement and eternity was natural in such a context.

There are, then, a number of things we must bear in mind about *De temporum ratione* which make it more than just a defence of Augustinian orthodoxy about time. Understandings of the nature of *calculated* time amongst the English and Irish were fundamentally different to Augustine's, being locked into models which were recognisably artificial, linear and grounded in nature. Perhaps the illusion of objectivity which dogged modern chronography struck and some people thought that measured time represented hard truths about the mystery of time too. Bede then found himself arguing about the relative merits of three different Easter tables, three different calculations of the world's age and the importance of employing Tyconian exegesis rather than literal interpretations of scripture. Bede developed *De temporum ratione* in a context which made it controversial, and in which it was intended as a polemic against his opponents. Perhaps this partially explains the curious history of *De temporum ratione* in

Moralia in Iob (ed. M. Adriaen, CCSL 143, 1–7) and Boniface, *Epistolae* 33 (ed. M. Tangl, MGH Epp. sel. 1, 56–8), at 57.

⁴² See Peter Darby's contribution to this collection, Chapter 5.

⁴³ Wallis, *Reckoning of Time*, 372–3.

⁴⁴ Compare Augustinus Hibernicus, *De mirabilibus sacrae scripturae* (ed. J.P. Migne, PL 35, cols 2149–200), 2.4 and Augustine of Hippo, *Confessiones* (ed. L. Verheijen, CCSL 27), 11.23.30. See also Warntjes, *The Munich computus*, 308–9, plus a useful overview of scholarship on the *De mirabilibus* at lxxviii–lxxix (n. 209).

England, where Eusebian chronology did not retreat and *De temporum ratione* itself eventually had to be re-imported from the continent – Bede's victory was far from absolute and immediate.⁴⁵ Indeed, as we shall see next, it fared only marginally better on the continent, which only serves to highlight further the complex and contestable intellectual environment into which *De temporum ratione* fed.

De temporum ratione Abroad

By 760 *De temporum ratione* was established amongst the authoritative sources for time-reckoning and was later even recommended to Charlemagne by Alcuin.⁴⁶ The popularity of *De temporum ratione* on the continent means that we are in an unusually strong position to gauge its reception. Even so, the end of the text is in many ways so varied that it also provides a case study in the creativity of Carolingian scriptoria. We have more than 57 extant manuscripts from the eighth and ninth centuries, all of which were either sent across the Channel or else were copied on the continent.⁴⁷ Unfortunately, as Jones noted in 1943, it is nearly impossible to produce a 'scientific group' because of 'the early and constant conflation'.⁴⁸ Indeed, conflation is often so rife that it shows many centres would not settle for one exemplar if two or more would do.⁴⁹ *De*

⁴⁵ Jones, *Beda's Opera de temporibus*, 142. There are few early English manuscripts which indicate chronographical preference but Eusebius is preferred in London, British Library, Cotton Vespasian B vi, fols 104–9 at fols 105r and 107r; and Oxford, Bodleian Library, Digby 63, fols 26r and 27r (copied at least in part from a continental exemplar).

⁴⁶ *Lectiones sive regula computi* (ed. A. Borst, MGH QQ zur Geistesgesch 21.2, 544–659), 2.6, 5.3B, 5.4B, [5.12B], at 577, 605–6 and [613]; Alcuin, *Epistola* 155 (ed. E. Dümmler, MGH Epp. 4, 249–53), at 250. Bede's authority was also invoked in the 809 Aachen investigation into computus: *Capitula, de quibus convocati computiste interrogati fuerint* (ed. A. Borst, MGH QQ zur Geistesgesch 21.3, 1040–53), 2, at 1041.

⁴⁷ Figure following J. Westgard, 'Bede and the Continent in the Carolingian Age and beyond', in *The Cambridge companion to Bede*, ed. DeGregorio, 201–15, at 211. Many of the manuscripts referred to can be consulted online including: Cologne, Dombibliothek (www.ceec.uni-koeln.de/), Karlsruhe, Badische Landesbibliothek (digital.blb-karlsruhe.de/Handschriften/), London, British Library (www.bl.uk/manuscripts), Munich, Bayerische Staatsbibliothek (www.europeanaregia.eu), St Gall, Stiftsbibliothek (e-codices.ch) and Valenciennes, Bibliothèque municipale (bibliotheque.valenciennes.fr).

⁴⁸ Jones, *Beda's Opera de temporibus*, 142.

⁴⁹ A good example is the tenth-century Limoges copy in Paris, Bibliothèque nationale, lat. 5239 (Limoges, s. x), which was copied from Paris, Bibliothèque nationale, lat. 5543 (Fleury, 847 if the note on fol. 120r is original rather than copied) but modified on the basis of a manuscript

temporum ratione travelled, and one wonders if Charlemagne's command for schools to teach computus in 789 had a deep influence here.⁵⁰ Jones himself could not establish more than some impressionistic groupings, and he did not take Chapters 66–71 into account because that was not the part of the text with which he was dealing. Mommsen's edition is not always so helpful, as he only used three manuscripts for the last section of the chronicle and the subsequent chapters.⁵¹ In order to get a sense of the fate of the historical and apocalyptic sections of *De temporum ratione*, it is essential to return to the manuscripts to see how the text was treated.

Several factors make analysis uncertain. There are, for a start, a number of instances in which a manuscript has simply been damaged or broken up, or the scribe just stopped or copied from an incomplete exemplar in the first place.⁵² One can judge little from such cases, and only a little more from times in which someone tracked down another exemplar to make good the losses (one can, at least, not explain why some manuscripts were left in poor repair).⁵³ More than once, *De temporum ratione* was considered not just a good classroom text but also an interesting candidate for a scriptorium to practice copying, with multiple hands filling in only a couple of folios each.⁵⁴ In such a context it is hard to be sure

from a different family – see Jones, *Beda's Opera de temporibus*, 155. Description in Borst, MGH QQ zur Geistesgesch 21.1, 269–71.

⁵⁰ *Admonitio generalis* (ed. A. Boretius, MGH Capit. 1, 52–62), ch. 72. I have been unable to consult the new edition by Hubert Mordek and Michael Glatthaar.

⁵¹ Mommsen, MGH Auct. ant. 13, 224 and 231. These were Berlin, Staatsbibliothek zu Berlin – Preußischer Kulturbesitz, Phill. 1831 (Verona, c. 800), St Gall, Stiftsbibliothek, Cod. Sang. 251 (St Gall, s. ix^{mid}) and BAV, Ottob. 67 (S. Dionisius Luni, 978).

⁵² The scribe just seems to stop in Paris, Bibliothèque nationale, nouv. acq. 1612 (Tours, s. ix), fol. 22r after the entry for Julian the Apostate but with space to spare on the page. London, British Library, Harley 3091 (prov. Nevers, s. ix²) stops mid-sentence at the end of fol. 128v (= *De temporum ratione*, 67, line 25) with Bede's *In Regum librum XXX quaestiones* on the next page. See also the examples in the next note.

⁵³ Examples of texts being added to later include Vatican City, Biblioteca Apostolica Vaticana, pal. lat. 1449 (Lorsch, s. ix¹ or, so Borst, MGH QQ zur Geistesgesch 21.1, 300, c. 812 because it includes no reformed computus), with Chapters 1–65 at fols 26v–104r, with the rest added later at fols 121r–145r; and Paris, Bibliothèque nationale, nouv. acq. lat. 1632 (prov. Orléans, s. ix¹), in which Chapters 68–71 were added on fols 66v–67v in another hand after the earlier scribe had stopped after Chapter 66a.

⁵⁴ Paris, Bibliothèque nationale, lat. 7296 (see n. 60) and lat. 13013 (s. ix, Auxerre, as confirmed by the highlighted feast of St Germanus in the calendar on fol. 4v) are both good illustrations of this, and both contain sections influenced by insular majuscule and minuscule. For a similar use of Hrabanus Maurus's *De computo* (819/20), see W.M. Stevens, 'Fulda scribes at work: Bodleian Library Manuscript Canonici Miscellaneous 353', *Bibliothek und Wissenschaft*, 8 (1982), 287–316.

whether an apparent omission or trimming is anything more than an oversight. Not every user group was as creatively arbitrary as the Tours scriptorium when the scribes continued *De temporum ratione* from Chapter 52 onwards because the team had already copied 51 chapters of *De natura rerum*.⁵⁵ Many nevertheless excerpted sections from the book, often blending it with other material or simply reordering the text.⁵⁶ The presence of multiple copies in a single library or network could also affect attitudes towards the text. There was, for example, a tenth-century copy of *De temporum ratione* from St Gall in which everything after Chapter 65 is omitted – but then there were already two full copies to hand, and the scribe chose to add further computistical notes instead of the long chronicle and eschatological thoughts.⁵⁷ *De temporum ratione* entered a world, in other words, in which texts were often organic, unstable things.

Some early mistakes and habits seemed difficult to avoid. It is, for instance, striking just how often scribes found it difficult to accurately number the last parts of the text. Whether they contained the whole text or not, almost all early manuscripts listed 72 chapters after the preface rather than the 71 chapters of Mommsen's edition because the chronicle and its preface are counted as two

⁵⁵ Paris, Bibliothèque nationale, nouv. acq. lat. 1612 (Tours, s. ix^{1/2}), the division falling at fol. 7r, where an early reader has noted that all of *De temporibus* and the greater part of *De temporum ratione* are missing.

⁵⁶ London, British Library, Harley 3017, fols 165r–168v (Jones, *Beda's Opera de temporibus*, 152 'Fleury' but Bischoff more cautiously 'Frankreich, IX. Jh., ca. 3. Viertel', *Katalog der festländischen Handschriften des neunten Jahrhunderts* (Wiesbaden, 1998), II.118), Chapters 48, 50, 51 and 56 only, in no way identified with Bede nor distinguished from other computistical excerpts in that section of the manuscript. Vatican City, Biblioteca Apostolica Vaticana, pal. lat. 1448, fols 1r–60r (Trier, 810), at fols 45r–59r, Chapters 2–46 with truncations; fols 60r–122v (Mainz, s. ixmid), at fols 92r–104v, Chapters 44–62 less Chapter 51, as an undifferentiated extension of an untitled *De temporibus*, with alterations copied from an exemplar of 758 (e.g. fol. 99r), and added material from the *Libri computi* of 809 afterwards again with distinction. An important early witness with a thoroughly rearranged text is Cologne, Dombibliothek, MS 83ii, fols 86r–125v, written in 805 to judge by an addition to the *Ars computi* on fol. 55r (not clear from the edition of A. Borst, MGH QQ zur Geistesgesch 21.2, 945–6, where one has to refer back to n. 107 on 935) and in the library of Archbishop Hildebold of Cologne (fol. 1r).

⁵⁷ St Gall, Stiftsbibliothek, Cod. Sang. 459, 143–346 (St Gall, s. x). The earlier St Gall copies are Cod. Sang. 248, 99–212 (99–148 = an eleventh-century copy of Karlsruhe, Badische Landesbibliothek, Aug. perg. 167 (see below, n. 61), but 149–212 are written in a ninth-century St Gall minuscule – see Jones, *Beda's Opera de temporibus*, 156) and Cod. Sang. 251, 45–181 (St Gall, s. ixmid). See A. Cordoliani, 'Les manuscrits de comput ecclésiastique de l'Abbaye de Saint Gall du VIIIe au XIIe siècle', *Zeitschrift für Schweizerische Kirchengeschichte*, 49 (1955), 161–200 and in the same volume 'L'évolution du comput ecclésiastique à Saint Gall du VIIIe au XIe siècle', 288–324.

chapters: 'lxvi de sex huius saeculi aetatibus' and 'lxvii de cursu earundem'.⁵⁸ Nevertheless, mistakes and other factors mean that the chapters are not consistent. It was poor numbering and/or chapter switching which Jones used as the basis for his 'German' family Υ and the subsets Σ (inversions of pairs of capitula) and Ω (inversions of whole chapter pairs). Although the text of the end is relatively stable by comparison, a number of witnesses to Ω (and indeed Σ , Ψ and Π) also show mistakes in numbering the final chapters so that the capitula only go up to lxx, usually with a double-numbering of lxxviii.⁵⁹ Meanwhile, friends and relatives of Ψ – which omit Chapter 15 'de mensibus Anglorum' perhaps because it was of less interest to Irish or Frankish readers – tend to be the only witnesses which divide the text into 71 chapters like the modern edition.⁶⁰ The ends of *De temporum ratione* have their own little groups, then, even though they only sometimes correspond neatly to the groups of the first sections of the work.

Once we get past the initial difficulties of behaviour in scriptoria and libraries, the best indication of the treatment of *De temporum ratione* lies in the uneven treatment of the chronicle (Chapter 66). The manuscript known as the Karlsruhe Bede contained *De temporum ratione* up to and including Chapter 65, but the scribe omitted the chronicle and everything thereafter and included instead the short chronicle from Isidore of Seville's *Etymologiae* with its traditional 'Septuagint' dating of the world.⁶¹ It is difficult to read this as anything other than a bald rejection of Bede's argumentation on this front; and indeed the scribe might not have been alone in editing out the chronicle for this reason, even if he were unusual in offering a replacement.⁶² Indeed, in

⁵⁸ Two exceptions are the Karlsruhe Bede, on which see n. 61 and Valenciennes, Bibliothèque municipale, 343, fol. 85v (St Amand, s. ix⁴), which lists 67 chapters but includes the full text.

⁵⁹ Würzburg, Universitätsbibliothek, M. p. th. f. 46 (Ω , St Amand, 800); Berlin, Staatsbibliothek zu Berlin – Preußischer Kulturbesitz, Phill. 1831 (Ω , c. 800); Leiden, Universiteetsbibliothek, Scaliger 28 (Ω , Flavigny, c. 816); Paris, Bibliothèque nationale, nouv. acq. lat. 1615 (Π , Auxerre then Fleury, 820/30), St Gall, Stiftsbibliothek, Cod. Sang. 251 (Σ , St Gall, mid s. ix) and Biblioteca Apostolica Vaticana, Ottob. lat. 67 (Ψ , S. Dionisius Luni, 978).

⁶⁰ The lead witness to this family is Paris, Bibliothèque nationale, lat. 7296. It is commonly dated to s. ix¹ but I am not aware that any provenance has been suggested. The mix of scripts indicates a centre with strong Anglo-Saxon and Irish influences.

⁶¹ Karlsruhe, Landesbibliothek, Aug. perg. 167, with the chronicle on fols 46r–47v. Curiously the capitula at the beginning list 65 chapters but a later ninth-century hand has added the missing titles for Chapters 66–72 (fol. 23v) even though they were not then copied.

⁶² A kindred spirit might perhaps be found in Vatican City, Biblioteca Apostolica Vaticana, pal. lat. 1448, fol. 18r (Trier, 810), which contains a clear rejection of the 'Hebrew Truth' reckoning shortly before the chronicle-less *De temporum ratione*. The text is edited as *Series annorum mundi secundum antiquos patres* by A. Borst, MGH QQ zur Geistesgesch 21.2, 1015–

one compilation of abbreviated chronicles from Tours, one reader felt moved to warn the ‘prudent calculator’ (*prudens calculator*) to prefer Bede’s teachings in the face of a product apparently otherwise put together in deference to the calculation of Eusebius.⁶³ The monks of Reichenau, where the Karlsruhe Bede was made, seem to have been particularly interested in the Septuagint reckoning and provided one of few ninth-century efforts to correlate it to AD-dating up to 848.⁶⁴ Indeed here we have the only explicit, focused correlation of AM 6000 with AD 800, although the distance of composition from that date suggests that it was more about policing chronographical tradition than *ex post defectu* confusion in apocalyptic tradition.⁶⁵ The fate of *De temporum ratione* here seems to have been bound up with wider arguments about chronology in the Frankish Empire, which had reached a high point in 809 with the Carolingian championing of the ‘Hebrew Truth’ – ‘ours’, they said possessively – and a small wave of conservative resistance in places such as Trier and St Gall where they maintained the Eusebian reckoning.⁶⁶

20, which Borst characterises as part of a ‘protest’ at 1009. Another possible candidate would be Cologne, Dombibliothek, 83ii, fols 76r–79r (as n. 56) which omits Bede’s chronicle and world age, but includes the Eusebian reckoning at several points throughout the compilation.

⁶³ Paris, Bibliothèque nationale, nouv. acq. lat. 1613, fol. 8r; printed in Mommsen, MGH Auct. ant. 13, 719. Thanks to Richard Landes for reminding me of the importance of this note. Compare it to the clumsy labelling of the ‘Cologne Notice’, in which the Eusebian reckoning is mislabelled ‘hebraica veritas’ and a (confused) ‘Greek’ reckoning is labelled ‘Septuagint’: *Additamenta Coloniensia ad chronica* (ed. A. Borst, MGH QQ zur Geistesgesch 21.2, 780–94), 2.3 (at 793–4). See Landes, ‘Apocalyptic Expectations’, 189–90 in which Prof. Landes sees such clumsiness as a ‘flagrant misrepresentation’. Palmer, ‘Calculating time’, 1328–9, is less sure.

⁶⁴ Karlsruhe, Landesbibliothek, Aug. perg. 167, fol. 15r (‘ \bar{v} ab initio mundi’); Landes, ‘Apocalyptic Expectations’, 198 and n. 235. Further evidence can be found in the footnotes to *Lectiones sive regula computi*, 3.1, ed. A. Borst, MGH QQ zur Geistesgesch 21.2, 585.

⁶⁵ The correlation is also made in Cologne, Dombibliothek, 83ii, fol. 76v, but does so as part of a sequence of years starting from 798 and as such it does not ‘highlight’ 800=6000. For a non-apocalyptic interpretation of the start date, see now I. Warntjes, ‘Köln als naturwissenschaftliches Zentrum in der Karolingerzeit: Die frühmittelalterliche Kölner Schule und der Beginn der fränkischen Komputistik’, in *Mittelalterliche Handschriften der Kölner Dombibliothek*, eds H. Finger and H. Horst (Cologne, 2012), 41–96. My thanks to Dr Warntjes for supplying me with a copy of this in advance of publication.

⁶⁶ *Libri computi* (ed. A. Borst, MGH QQ zur Geistesgesch 21.3, 1087–1334), 1.7C, at 1122; and the inquisition of 809, ch. 4: ‘qui cum propter diversorum auctoritates primum diversa protulissent postremo in Ebraice veritatis numero fidem facere censuerunt’. Conservative responses in Biblioteca Apostolica Vaticana, pal. lat. 1448, fol. 19r and the computus in St Gall, Stiftsbibliothek, Cod. Sang. 902, 153–79 (St Gall, s. ix³). A copy can also be found in St Gall, Stiftsbibliothek, Cod. Sang. 251, 1–25 (St Gall, s. ix³). For criticism of Borst’s reconstruction of the *Libri computi* and its context see Palmer, ‘Calculating time’, 1320–24.

In some cases the chronicle became a device for comparing different reckonings, as it was adapted into a 'Chronicle of 741'.⁶⁷ In Flavigny around 816 this chronicle was used in its entirety as a substitute for Bede's own in *De temporum ratione*, although the last chapters were kept in place.⁶⁸ The 'Chronicle of 741' used Bede extensively as source material but added numerous passages relevant to Frankish history, including at the end a handful of annalistic entries – from the *Annales S. Maximiniani* – up to the death of Charles Martel in 741, hence the chronicle's modern name.⁶⁹ But this was about more than political or national historiography-cum-propaganda, given the technical computational setting. The chronicle's chronographical charms lay in its parallel (but inaccurate) use of the Septuagint and Hebrew Truth world dates and so also in its comparison of different traditions.⁷⁰ This can also be said of its treatment of the tables of Victorious of Aquitaine and Dionysius Exiguus, whose works were compared in the same Flavigny manuscript both in table form and in the text of the chronicle.⁷¹ *De temporum ratione* was useful in the context of debate because it provided a forum in which diverse reckonings of time could be synchronised. But even the Chronicle of 741 was adaptable and in another manuscript witness, from Weltenburg around the same time, a 'looser' version of the chronicle was

⁶⁷ *Chronicon universale – 741* (ed. G. Waitz, MGH SS 13, 4–19). The most recent study is R. McKitterick, *Perceptions of the Past in the Early Middle Ages* (Notre Dame, IN, 2006), 23–8. Dr Sören Kaschke promises a new study soon.

⁶⁸ This is not apparent from Jones's discussion, in which the Leiden manuscript is listed as 'very similar' to Berlin, Staatsbibliothek zu Berlin – Preußischer Kulturbesitz, Phill. 1831 (Jones, *Beda Opera de temporibus*, 152) and the likely exemplar for Besançon, Bibliothèque municipale, MS 186, both of which contain Bede's own chronicle again (Jones, *Beda Opera de temporibus*, 150). Conflation must be at work. As Mommsen showed ('Zur Weltchronik vom J. 741', *Neues Archiv der Gesellschaft für Ältere Deutsche Geschichtskunde*, 22 (1897), 548–53), the closest relative is Paris, Bibliothèque nationale, nouv. acq. lat. 1615 as both contain alterations in *De temporum ratione* to an *annus praesens* of 800/1, although other changes suggest they share a common exemplar. The chronicle in the Paris manuscript includes interpolations from the Chronicle of 741 but it ends where Bede's ends.

⁶⁹ It seems unlikely that the chronicle was composed in 741. G.H. Waitz, 'Zur Geschichtschreibung der Karolingischen Zeit', *Neues Archiv der Gesellschaft für Ältere Deutsche Geschichtskunde*, 5 (1880), 475–502 at 487–8 points out that it must post-date the extended Fredegar chronicle it quotes – in his view written in 768 but recently redated to 787 by Roger Collins (*Die Fredegar-Chroniken*, MGH Texte und Studien 44 (Hannover, 2007), 91–2), which in fact complements Waitz's thesis that it was begun in the 780s as a supplement to the *Annales regni Francorum*, the first year of which is 741.

⁷⁰ See for instance the equation of AD 731 with 4600 'secundum Hebreos' and 5900 'secundum septuaginta': *Chronicon universale – 741*, 19.

⁷¹ Most recent comment in Warntjes, 'A newly discovered prologue', 269–70.

presented as a ‘book of chronicles from various little works of authors, collected together into one’ (*liber chronicorum ex diversis opusculis auctorum collecta in unum*), with prefaces from Eusebius, Bede and Isidore.⁷² In this instance of historiography, it also seems that keeping the last chapters of *De temporum ratione* made sense as a future-historical conclusion, as they were kept in full.⁷³

Keeping track of the flow of the past into the present using *De temporum ratione* was widespread. There were, for a start, other instances in which historical notes were added to the end of *De temporum ratione*, after Chapter 71.⁷⁴ Moreover, a précis of the text was made in 807, which Garipzanov has plausibly associated with the celebration of the 38th year of Charlemagne’s reign, in imitation of Augustus’s 38 years.⁷⁵ This text was then revised two years later as part of the computistical investigations of 809, and this version became one of the most copied chronicles of the Carolingian period. Both versions reduced the chronological material so that there were no references to the *Annus Mundi* until the very end, after a long list of emperors and the lengths of their reigns – effectively more a regnal or imperial list than a history. (The chronicle here silently legitimised the Carolingian dynasty’s imperial status by making Pippin II follow on from Justinian II – although if it were ‘propaganda’ it was only really for monks interested in computus).⁷⁶ It was not, however, directly associated with Bede in the manuscripts, and from time to time it travelled alongside *De temporum ratione* or its chronicle.⁷⁷ Once, in Fleury in 847, the

⁷² Munich, Bayerische Staatsbibliothek, Clm 246 (Bischoff, *Katalog*, no. 2924, II.221, ‘wahrscheinlich Weltenburg, IX Jh., ca. Mitte’).

⁷³ There is ‘conflation’ or a missing link here too, as the texts of the chronicle and *De temporum ratione* contain variations.

⁷⁴ For instance what seems to be an expanded translation of Nikephoros of Constantinople’s *Kronikon* in Berlin, Staatsbibliothek zu Berlin – Preußischer Kulturbesitz, Phill. 1831, 89v (ed. Mommsen, MGH Auct. ant. 13, 342–3) alongside two other variations. These can be compared to the simpler Greek version in London, British Library, Add. MS 1930, fols 22r–22v (in my case with much-appreciated help from Dr Tim Greenwood). See also London, British Library, Cotton Vespasian, B vi, fol. 102v (popes, emperors and Frankish kings up to Louis the Younger).

⁷⁵ I. Garipzanov, ‘The Carolingian abbreviation of Bede’s world chronicle and Carolingian imperial ‘genealogy’’, *Hortus Artium Medievalium*, 11 (2005), 291–8. The text is most recently edited as ‘*Die ostfränkische Abnentaſel von 807*’ or ‘*Series annorum mundi nova*’ by A. Borst, MGH QQ zur Geistesgesch 21.2, 971–1008. The title ‘*Laterculus Bedanus*’ is given in MGH Auct. ant. 13, 346–7, with discussion of differences from Bede’s text.

⁷⁶ There were also regnal lists which included the Merovingians: see E. Ewig, ‘Die fränkischen Königskataloge und der Aufstieg der Karolinger’, *Deutsches Archiv für Erforschung des Mittelalters*, 51 (1995), 1–28.

⁷⁷ Paris, Bibliothèque nationale, nouv. acq. lat. 1615, fols 19r–126v (*De temporum ratione*) and fols 171r–172v (abbreviated chronicle); Paris, Bibliothèque nationale, lat. 4860, fols 77v–88r

Abbreuatio chronicae was copied after the text of *De temporibus* complete with its brief chronicle, which may explain why the scriptorium did not waste resources on copying the *De temporum ratione* chronicle as well.⁷⁸ The other resources of a library have to be taken into account, as discussed above. Nevertheless, the crucial point, again, is that Bede had supplied the base material for understanding the passage of authority through time up to a present with an undefined future.

Cases in which the end of *De temporum ratione* appeared as a separate text, as in the Weltenburg manuscript, are rare. Nevertheless, there is unambiguous evidence that some readers considered everything after Chapter 65 to be separate in subject to computus. In a Cologne copy of 795, for example, a firm explicit is given after Chapter 65 but before the rest of the text.⁷⁹ Although it is all complete, the chronological and apocalyptic material at the end was effectively cast as another work – or perhaps, as a different reader, possibly in Orléans, put it, it formed ‘the second part of this book.’⁸⁰ The Laon-Metz glosses, written in 873/4, followed this opinion.⁸¹ What was left, they said, was about human actions and the end of time, so effectively dealing with the two forms of time other than that determined by nature. In Mainz, the chronicle was copied out with none of the accompanying material, but placed alongside other world chronicles (and later providing material for Marianus Scottus’s revision of chronology in the eleventh

(*De temporum ratione*, Chapters 66–7 only) and fols 88r–89r. Considering how many copies of *Abbreuatio chronicae* there are it is perhaps surprising that their paths did not cross more often.

⁷⁸ Paris, Bibliothèque nationale, lat. 5543, fols 91r–93v.

⁷⁹ Cologne, Dombibliothek, MS 103, fol. 140r: EXPLICIT LIBER DE TEMPORIBUS QUEM UIR HUIUS TEMPORIS ERUDITISSIMUS BAEDA ANGLORUM PRESBITER FAMULUS CHRISTI ROGATUS A FRATRIBUS CONPOSUIT (‘Here ends the Book on Times which the most erudite man of these times, Bede, priest of the English, servant of Christ, composed having been asked by the brothers’). The designation ‘Anglorum’ suggests this is a continental addition. The manuscript was in the library of Archbishop Hildebold of Cologne (fol. 1r). The date of 795 comes from an annalist’s note on fol. 15r: A. van Euw, ‘Beda Venerabilis: Naturlehre, historiographische und zeitrechnerische Werke (Dom Hs. 103)’, in *Glaube und Wissen im Mittelalter. Die Kölner Dombibliothek*, eds J. Plotzek and U. Surmann (Munich, 1998), 29–135 at 129.

⁸⁰ Paris, Bibliothèque nationale, nouv. acq. 1632, fol. 9v. The Bedan section of manuscript (1r–67v) was certainly in Orléans, but since it was composed separately to the rest of the manuscript it is difficult to maintain that it was definitely written there. Compare also the treatment in a second Cologne manuscript, Dombibliothek, MS 102, from the tenth century, in which sections from Bede’s *De natura rerum* and related materials are inserted at fols 49r–52v between the end of *De temporum ratione*, Chapter 65 and the last section on fols 53r–94r.

⁸¹ See the gloss to Bede, *De temporum ratione*, pref., line 7 (ed. Jones, CCSL 123B, 263). On the glosses see Jones, CCSL 123B, 257–61 and Wallis, *Reckoning of Time*, xciii–xciv.

century).⁸² Finally, an eleventh-century copy from Moissac provides both a rare instance in which the apocalypse chapters were copied alone without the chronicle, and the earliest case in which any of *De temporum ratione* was paired with Pseudo-Methodius's popular *Sermo de regnum gentium et in novissimis temporibus certa demonstratio*, a non-Augustinian apocalyptic text translated into Latin in Bede's lifetime.⁸³ Again, the separability of Bede's arguments seems to underpin the use here, highlighting how *De temporum ratione* lent itself to being carved up.

Even so, finding any substantial Carolingian reflection on Bede's eschatology is rare. The copy of *De temporum ratione* from Orléans just mentioned is one exception because it is prefaced by an additional page-long note in front of Bede's preface.⁸⁴ Interestingly, considering the arguments Bede faced at home, the author seemed little concerned with matters of chronology. What mattered was the power of Bede's computistical system to overcome the instability of the world. The 'course of times' (*cursus temporum*) was so-called, s/he argued, because of the way in which human deeds moved through the six ages of the world; but, at the end, the extremes of want, conflict and time itself would be flattened out.⁸⁵ Reflections of earthly experience, in other words, would be dissolved in the bliss of eternity. The author praised Bede's thoughts on what would follow with the seventh and eighth ages: 'he set them out most eloquently' (*eligentissime exposuit*). Yet while the Laon-Metz glossator appropriated the thoughts of the Orléans preface here, it is striking that the chronicle and

⁸² Paris, Bibliothèque nationale, lat. 4860 (Mainz, c. 900). On Marianus's use of the text, see C.P.E. Nothaft, 'An eleventh-century chronologer at work: Marianus Scottus and the quest for the missing 22 Years', *Speculum*, 88 (2013), 457–82, which I am grateful to have been allowed to consult pre-publication.

⁸³ Paris, Bibliothèque nationale, lat. 4871, fols 113r–160v, provenance Moissac according to the note above the library catalogue on fol. 160v, likely s. xi^{1/2}. *De temporum ratione*, Chapters 66–71 at 149r–151r, with Pseudo-Methodius following to 153r. For Pseudo-Methodius: W.J. Aerts and G.A.A. Kortekaas (eds), *Die Apokalypse des Pseudo-Methodius. Die ältesten griechischen und lateinischen Übersetzungen* (2 vols, Leuven, 1998), which forms the basis for the texts and translations in B. Garstad's *Apocalypse of Pseudo-Methodius* (Cambridge, MA, 2012). Both Clemens Gantner and myself have detailed studies of the text's Latin history forthcoming, supplementing the important study of H. Möhring, *Der Weltkaiser der Endzeit. Entstehung, Wandel und Wirkung einer tausendjährigen Weissagung* (Stuttgart, 2000), 54–103 and 136–43.

⁸⁴ Paris, Bibliothèque nationale, nouv. acq. 1632, fol. 9v – curiously with no break or heading before Bede's preface to *De temporum ratione*, which begins across the page on f. 10r.

⁸⁵ 'Nemo laborabit quia nemo indigebit. Nemo contendet quia nullus adversarius erit. Nemo cogitabit ignarus quia nullus nisi sapiens erit. Nemo horas et momenta et caeteros temporum articulos distinguet quia omnia praentia simul.'

apocalypse chapters were little glossed compared to the rest of the text.⁸⁶ It is rare to find commentators on things apocalyptic appealing to Bede's thoughts in non-computistical settings.⁸⁷ In the final reckoning, Bede's influence on the eschatology of the 'Bedan Carolingians' was far from absolute and the nature of the future remained open to debate.

Conclusion

Bede's thoughts in *De temporum ratione* brought together a variety of strands which showed the intersections of computus, history and apocalyptic thought. This was not, however, a simple exercise in juxtaposition for school children and clerics who needed to learn all about these things. Bede's division of time into natural, customary and divine made a clear rhetorical point – completely in step with his Irish peers – about the imperfect relationship between different spheres of understanding as well as their interconnectivity. Although he could not completely divorce them from each other, it was essential for him to be able to draw distinctions. His opponents needed to understand their compounded mistakes: their trust in dubious authorities such as Victorius of Aquitaine, and their misappropriation of faulty chronographical material to prophesy the end of time. The computistical 'first book', the chronicle, and the apocalypse chapters therefore served different ends, each correcting the errors of his opponents on different fronts. Bede's point was not so much about the harmony of these reckonings, but the need to understand the relationships between them so that one did not make weak inferences on the basis of, say, human calculations of time and God's plans for the timing of Judgement. At that level, *De temporum ratione* was less a school book and more a polemic against people in Wearmouth-Jarrow, and perhaps as far afield as Canterbury and Ireland, who held alternative points of view and criticised Bede and his friends.

The reception of *De temporum ratione* on the continent reveals the difficulties Bede had in maintaining such an argument. Copying, editing and excerpting

⁸⁶ One of few interesting glosses I have encountered is in Berlin, Staatsbibliothek zu Berlin – Preußischer Kulturbesitz, Phill. 1869, fol. 134v (Prüm, c. 840), where the name Antichrist has been glossed 'videlicet persecutionem'.

⁸⁷ For example, Bede's two certain signs of the End – the conversion of the Jews and the coming of Antichrist (*De temporum ratione*, 69) – is only repeated by Alcuin, *De fide sanctae et individuae trinitatis* (ed. J.P. Migne, PL 101, cols 9–64), 3.19, at col. 51. It could, however, be that it informed Adso's attitudes to the apocalyptic conversion of the Jews in the Pseudo-Methodian end section of his *De ortu et tempore Antichristi* (ed. D. Verhelst, CCCM 45, 20–30), lines 151–95.

had the power to blunt Bede's message, even though such activities could be carried out without that intention, as clearly happened in scribal practice or the compilation of new computistical handbooks or chronicles. But sometimes, as the Karlsruhe Bede and the 'Chronicle of 741' show, *De temporum ratione* could become the battleground, as traditions clashed and the text was changed accordingly. In these instances, the problem was whether to maintain the authority of Eusebius-Jerome or to follow the Iro-Bedan model. Even then, however, many of the defenders of Eusebian tradition mounted their attacks after the passing of Y6K, which begs the question of whether they found Bede's 'indefinite imminence' objectionable or just his chronology. What Carolingian scholars were left with was a resource that helped them to map out the future, both through the liturgical rhythm of Easter and the linear passage of human actions from the present into the past as each year became part of history itself. Marking time was important, Bede had taught them; but it did not tell anyone the exact shape or duration of the time yet to come.