



Astronomy and Natural Science in the *Peterborough Chronicle*

Cosmic Explorations, University of Caltech,
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From *De Carmen Abbatibus*

[...] *ocius inde suos cupiunt adcurrere lectos,
ast ego post omnes conclusis postibus aulam
deservique alium fratrem comitatis adiui,
qui tum forte foras spectando sidera cernit.*

[...] they desired [the brothers] to hurry to their beds, but I left the Church after them with all its doors shut, and approached another brother, whom I accompanied; he was then by chance outside scanning the stars to make observations of them (Aethelwulf, *De Abbatibus*, ed. A. Campbell (Oxford, Clarendon Press, 1967, ll. 661-4)

B

þittene iſland iſ ehta hund mila lang.
 ⁊ tpa hund bpad. ⁊ heſ fund on þiſ
 iſlande fiſ ſe þeode. enſliſe. ⁊ þuſ
 tife. ⁊ pilre. ⁊ freyttare. ⁊ pſhtare. ⁊
 boc leden. Eneſt peſion buſend þileſ
 landeſ þuſteſ. þa coman of armenia. ⁊ ſe ſetan
 ruðeþearde þuſttene aroſt. þa ſe lamp hte þ pſh
 taſ coman ſuþan of ſeithian. mid langſu ſcipu
 na manesum. ⁊ þa coman aroſt on noſiſ yþerian
 up. ⁊ þeſ bædo ſcottaſ þ hi ðeſ moſton þuman. ac
 hi noldan heom lſfan. forðan hi ceoðon þa ſcottaſ.
 þe eoþ maſon þeah hpaðeſe ruð ſe laſion. þe pitan
 oþeſ iſland heſ be eaſton. heſ ſe maſon eaſdian ſiſ
 ſe pillað. ⁊ ſiſ hpa eoþ pið ſteat. þe eoþ fulcummad. þ
 ſe hit maſon ſe ſanſan. Ða feoðon þa piltaſ. ⁊ ſe
 feoðon þiſ land noſhan þearð. ⁊ ſuþan þearð hit heſ
 don þuſtaſ. ſpa þe æſ ceoðon. And þa pſhtaſ heom abe
 don piſ æt ſcotum. on þa ſe pad þ hi ſe ceoþon heoþ
 kſne em aā on þa piſ healpa. þ hi heoldon ſpa lanſe
 ſyððan. ⁊ þa ſe lamp hte imbe ſeapra þuna. þ ſcotta
 ſum ðæl ſe pat of yþerian on þuſttene. ⁊ þeſ lan
 deſ ſum ðæl ſe eodon. ⁊ þeſ heoþa hepaçoſa þeoda ſe
 haten. þrom þa heo ſind ſe nemnoðe ðæl þeodi. Ðre
 tſum þuſtu æſ þa þe ceuſe þeſe acenned. ⁊ ai uili
 þomana kaſeþe mid hund ehtaſu ſcipu ſe ſolte
 þuſttene. þeſ he þeſ aroſt ſe ſpenced mid ſumum
 ſe feolte. ⁊ micelne ðæl hiſ heſeſ forlædde. ⁊ þa he

*Liber Guil. Laud Archiepi Cant. &
 Cancellar. Universit. Oxon. 1638.*

Oxford, Bodleian
 Library, Laud Misc.
 636, fol. 1r

Year 1116

On þison geare wæs se cyng Henri to Natiuiteð æt Sancte Albane 7 þær let þet mynster halgian 7 to Eastron on Wudiham. 7 wæs eac þyses geares swiðe hefigtyme winter 7 strang 7 lang wið org 7 wið ealle þing ... ðis wæs swiðe geswincfull gear 7 byrstfull on eorðwæstmas þurh þa ormæte reinas þe coman sona onforan August 7 swiðe gedrehton 7 geswencton þe gyt þe com Candelmæssan. Eac þis gear wæs swa gæsne on mæstene swa þet on eallon þison lande ne eac on Wealon ne gehyrde me of nanan segcean. Ðis land 7 þas leodan wurdon eac þyses geares oftrædlice sare geswencte þurh ða gyld þe se cyng nam ægðer ge binnan burgan 7 butan. **On þisum geare bærnde eall þet mynstre of Burh 7 eallæ þa husas butan se Captelhus 7 se Slæpperne, 7 þærto eac bærnde eall þa mæste dæl of þa tuna. Eall þis belamp on an Frigdæg, þet wæs .ii. nonas Augusti.**

(All transcriptions are taken from the relevant volume from *The Anglo-Saxon Chronicle: A Collaborative Edition*, general editors D. Dumville and S. Keynes (Cambridge: Brewer, 1983-). All translations from the ASC are adapted from D. Whitelock, *The Anglo-Saxon Chronicle* (London: Jarrold & Sons, 1961).

ær þan nan sciensne ne ƿ munde. 7 ƿearð þurh þ ungemæte
of ƿ cƿealm. On þison gearre sænde se papa paschal ƿaulfe
ærceþ on cantƿara byrig ƿalliu hideri to lande. 7 he hif on ƿeng
mid mycelan ƿurð ƿcipe æt hif ærce scole on cant byrig. hine
byohte anfealm abb of ƿome. se ƿel neƿa anfealmes ærceþ. 7 ƿeall lohan
of burh.

A 11100. c. xvi.

On þison gearre ƿel se cýng henri to
natiured æt see albane. 7 þær let þ mynster halstan. 7 to eal
ƿon on ƿudham. 7 ƿel eac þýsel gearres ƿide heft ƿýme
ƿmæter 7 ƿƿans 7 lans. ƿid of 7 ƿid ealle þing. And se cýng
ær ƿ easton sona ƿeide of ƿ se in to normandis. 7 ƿurdon
manesa unƿada 7 ƿæfinga. 7 castelaf ƿ numene be ƿ ƿ
ƿance 7 normandis. Mæst þis unsehte ƿel ƿon þan þe se cýng
henri ƿýlhte hif neƿan þa eoþle tædbalde de blas. þe þa ƿýrre
hæfde to gearres hif hlaƿorde þa cýng of ƿance lode ƿir.
Ðis ƿel ƿide ƿ ƿmæfull gear 7 byrig full on eoþd ƿestman.
þurh þa oþmæte ƿemas þe coman sona on ƿon august.
7 ƿide ƿedrehton 7 ƿe ƿencton þe ƿýt þe cō candel mæstian.
Eac þis gear ƿel ƿa ƿæne on mæstene. ƿa þon eallon þison
lande. ne eac on ƿealon ne ƿ hýrde me of nanan se ƿean. Ðis
land 7 þas leodan ƿurdon eac þýsel gearres of ƿædlice sape
ƿe ƿenctte. þurh þa ƿýl þe se cýng nā. æsðer ƿe binnan
burigan 7 bitan. On þis ƿýlean gearre bænde eall þ myn
stere of burh. 7 ealle þa husas bitan se captel huf 7 se slæp
ƿerine. 7 þær to eac bænde eall þa mæste dæl of þa tuma. Eall
þis belap onan ƿrus dæg. þ ƿær. 11. 7 august.

*Cambuscro
Lidic*

O 11100. c. xvii.

Eall þis gear ƿunode se cýng henri
on normandis. ƿon þel cýnges unsehte of ƿance 7 hif oþra
neh heburia. 7 þa to ðan sumerian cō se cýng of ƿance 7 se
eoþ of flandria mid hī mid ƿýrde in to normandis. 7 ane
mht þær inne ƿunedon. 7 on moþsen bitan ƿe ƿehte on

References to natural phenomena in the 'Common Stock up to 891'

538: Solar Eclipse (all versions, missing in MSD); **540:** Solar eclipse (all versions, missing in MSD); **664:** Solar eclipse (all versions, missing in MSD); **671:** Great Mortality of birds (all versions); **678:** Comet (all versions, 677 MSF); **685:** Bloody Rain (MSF); **729:** Comets (DEF, one comet in MSS ABC); **733:** Lunar Eclipse (all versions); **734:** Red Moon (all versions); **744:** Meteors (MSS DE); **763:** Great Winter (all versions); **776:** Cross in the sky, Supernova? (all versions); **793:** Fiery Dragons/Aurora Borealis?(MSS DEF); **794:** Bad Weather (MSS DE); **796:** Lunar Eclipse (MSS DEF); **800:** Lunar Eclipse (MSS DE, 801 MSF); **802:** Lunar Eclipse (MSS DEF); **806:** Lunar Eclipse (MSS DEF), F adds the sign of the cross; **809:** Solar Eclipse (MSF); **829:** Lunar Eclipse (all versions); **879:** Lunar Eclipse (all versions (880 MSC)); **885:** Solar Eclipse (all versions, MSC 886); **891:** Comet (MSS AF)

The astronomical observations in the entries of MSS DE up to c. 890 that are missing from MSS ABC include:

- Year 744 (*steorran foran swype scotienda*)
- Year 793 (*fyrenne dracan 7 ligrescas*)
- Year 795 (*seo mona apistrod*)
- Year 800 (*se mona apistrad*)
- Year 802 (*aþeostrade se mona*)
- Year 806 (*sona apistrode*)

Epistola To Charlemagne from his 'old soldier Flaccus'.

A.D. 798

Venit viator volando, quaestionariam autoritatis vestrae habens in manu cartam ... hortans seniore[m] fragile sensu caelestia scrutare, qui terranorum necdum didicit rationes, stellarum in caelo errantium vagabundos exponere cursus, qui herbarum in terra nascentium nequaquam agnoscere valet ... Quid enim de concordia solaris lunarisque cursus per signa zodiaci Iudicius dici poterit, quam quod talium inquisitor quaestionum **Beda magister** in scriptis suis nobis reliquit? Quam quod naturalium rerum devotissimus inventor **Plinius Secundus** de caelestium siderum ratione exposuit, investigari valet? Sed nobis inter agentibus illorum in quibus haec leguntur, librorum deest praesentia. Nihil de vestrae sapientia profundissimis quaestionibus temere audemus respondere; postulantes clementia vestram, ut iubeatis nobis dirigere primos praefati doctoris Plinii Secundi libellos.

A lengthy answer follows with a diagram. (“Alcuini epistolae”, ed. Dümmler, epistola 155, 250; Translation adapted from Allott, *Alcuin of York: His Life and Letters*, 1974, letter 76, p. 92).

Oxford, Bodleian Library, MS Laud Misc 636 or

MS E was written in two distinct phases:

- The annals copied till 1121, which form the majority of the text, are written in one scribal block and incorporate new material which can be localised at Peterborough (interpolations to the exemplar)
- First Continuation by the same scribe covers the period 1122-1131 (strictly contemporary to the scribe and written in six blocks, (i) 1122, (ii) 1123, (iii) 1124, (iv) 1125-6, (v) 1126-27, (vi) 1128-31 (N. Ker, *Catalogue*, p. 425, no. 346)
- Second Continuation by a different scribe copied in one block after the 1150s. The events are written retrospectively.

Natural Phenomena in the Peterborough Chronicle after 891

975: Comet MSS DEF (alliterative in MSS ABC); **986:** Murrain of Cattle (MSS CDE); **995:** Comet (MSS CDEF); **1005:** Great Famine (MSS CDE); **1009:** Wind (MSS CDE); **1032:** Wild Fire (MSS EF); **1041:** Storms+Cattle+Disease (MSE); **1043:** Famine (MSE); **1053:** Wind (MSE, 1052 in MSD); **1054:** Pestilence among cattle; **1082:** Famine; **1085:** Bad year for cattle+ bad weather; **1086:** Disease + storms; **1089:** Earthquake; **1095:** Falling stars and unseasonable weather; **1096:** Famine; **1097:** Comet + bad weather+ flood; **1098:** Pool of blood+red sky+rains; **1100:** Blood from the earth; **1103:** Blood from the earth +Wind; **1104:** Halo; **1105:** Ruin of crops [due to bad weather?]; **1106:** Comet; **1107:** Moon waxing; **1109:** Thunderstorm; **1110:** Comet and several other astronomical phenomena; **1111:** Bad weather; **1112:** Excessive plague; **1114:** Comet+ Ebbtide + winds; **1115:** Severe winter; **1116:** Bad weather/rains+fire; **1117:** Red moon +lunar eclipse; **1118:** Wind + lightning; **1119:** Earthquake; **1121:** Lunar eclipse +wind

First Continuation: **1122:** Aurora borealis + wind; **1123:** Great Fire; **1124:** Bad weather; **1125:** Floods +bad weather, disease; **1127:** **Black Huntmen**; **1129:** Earthquake; **1131:** possibly an Aurora Borealis (bærnende fir)

Second Continuation: **1135:** Solar eclipse; **1140:** solar eclipse

Year 1106

... On þære forman længtenwucan on þone Frigedæg .i.xiiii. kalensas Martii on æfen ætywde an ungewunelic steorra 7 lange stunde þæræfter wæs ælce æfen gesewen hwile scinende. Se steorra ætywde innon þet suðwest; he wæs litel gepuht and deorc, ac se leoma þe him fram stod wæs swiðe beorht 7 swilce ormæte beam gepuht norðeast scinende, 7 sumne æfen wæs gesæwen swilce se beam ongeanweardes wið þes steorran ward fyrcliende wære. **Gehwylce sædon þet hig ma on þison timon uncuðra steorra gesawon, ac we hit openlicor ne awriton, forþam þe we hit sylfe ne sawon.** On þa niht þe on morgen wæs Cena Domini, þet is se Þunresdæg toforan Eastran, wæron gesewen twegen monan on þære heofonan toforan þam dæge, oðer be eastan 7 se oðer be westan, begen fulle, 7 þæs ylcan dæges wæs se mona .xiiii.



Year 1122

Millesimo.cxxii. On þis geare wæs se king Heanri on Cristenmæssan on Norhtwic. 7 on Pasches he wæs on Norhtamtune. 7 on þone lententyde þærtoforen forbear se burch on Gleawecestre. Þa hwile þe þa munecas sungen þære messe. 7 se dæcne hafde ongunnan þone gospel Preteriens Iesus. þa com se fir on ufenweard þone stepel 7 forbearnde ealle þe minstre 7 ealle þa gersumes þe wesþes dæies .viii. idus Martii. 7 þær æfter þe Tywesdæi æfter Palmes Sunendæi wæs swiðe micel wind on þet dæi .xi. kalendas Aprilis. Þæræfter comen feale tacne wide hwear on Englaland 7 feole dwild wearen geseogen 7 geheord. 7 þes niht .viii. kalendas Augusti wæs swiðe micel eorðdyne ofer eal Sumersetescire 7 on Gleawecestrescire. Siððon on þæs dæi .vi. idus Septembris þet wæs on sancte Marie messedæi. þa wearð swiðe mycel wind fram þa undern dæies to þa swarte nihte. Þeos ilce geares forðferde Raulf seo ærcebiscop of Cantwarbyrig. þet wæs on þæs dæies .xiii. kalendas Nouembris. Þæræfter wæron feole scipmen on sæ 7 on wæter 7 sædon þet hi sægon on norðeast fir micel 7 brad wið þnerðe, 7 weax on lengþe upon an to þam wolcne, 7 se wolcne undide on fower healfe and faht þærtogeanes swilc hit scolde æwencen, 7 se fir weax na þa ma up to þe heovene ...

The wind in the ASC

1009
(C,
D &
E)

1050
(D)

1075
(D)

1114 (E)

1121
(E)

1123
(E)



1039 (C)

1052/53
(C, D) E
has
weder
(wind?)

1103
(E)

1118
(E)

1122 (E)

Every time the main scribe of MS E gives the exact day (and in one case even the time) on which the wind is associated to some sort of catastrophe:

- *On Octobris monðe, ac he wæs ormæte mycel on þa niht octabe Sancti Martini in 1114*
- *Thomes mæsseniht in 1118*
- *Sancte Laurentius mæssedæg in 1121*
- *þe Tywesdæi æfter Palmes Sunendæi wæs swiðe micel wind on þet dæi .xi. kalendas Aprilis. on þæs dæi .vi. idus Septembris þet wæs on sancte Marie messedæi . þa wearð swiðe mycel wind fram þa undern dæies to þa swarte nihtein 1122*

The same hand has been identified in the following MSS:

MSS:

- Oxford, Bodleian Library, MS Laud Misc. 636 or *MSE*, around 1121, Peterborough
- London, British Library, MS Cotton Tiberius C. i, Fols. 2-42, 1120s Peterborough
- London, British Library, MS Harley 3667, probably written soon after 1122, Peterborough

(Tiberius C.i + Harley 3667) originally part of one big scientific collection known as the *Peterborough Computus*)

Contents MS Cotton Tiberius C .i Part 1 (ff.2-42) 1120s (most likely 1122) astronomical and computistical material in Latin

Fol. 1r table of contents added later probably by Sir Cotton.

Fol. 3rv Two eight-column Easter Tables for the years 988-1025, with marginal annals on fol. 3r

Fol. 4r Diagram six kinds of year

Fol. 5r Circular diagram of zodiac, prophets, seasons, four elements, four cardinal directions, four letters of Adam's name, etc.

Fol. 5v *Duodenarius perfectus est numerus*

Fol. 6v/1-7r/3 Isidore's DNR, chap. 11 *De partibus mundi* ...four elements, etc.

Fol. 7r/1-3 Egyptian Days and Macrobius *In Somnium Scipionis*.

Fol. 7v/1-21 Sphere of Pythagoras

Fol. 8r Calendrical tables

Fol. 9v circular diagrams on the sun and the moon

Fol. 10r/14-10v/2 Isidore's DNR, chap. 4 'Lectio de mensibus secundum antiquos'

Fol. 11r/1-20 Isidore's DNR, chap. 37 De nominibus ventorum ... Ventorum primus cardinalis septentrio, followed by a circular diagram of the winds, with OE translation added as glosses to the Latin names.

Fol. 12v/1-39 Isidore's DNR chap. 23: *De positione septem stellarum errantium* followed by a diagram on the positions of the planets.

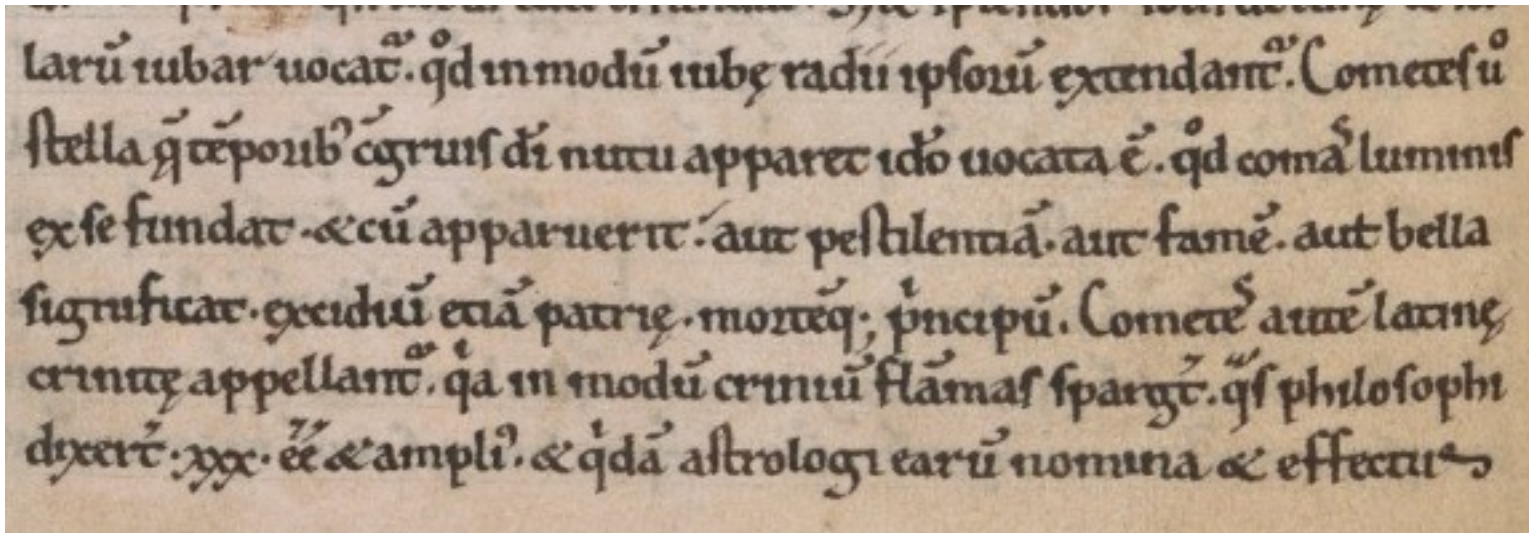
Fol. 36v/11-38r/23 Pliny historia, book 18, chaps. 78-90.342-65: *De presagiis tempestatum presagia solis* ...

Fol. 39v/31-40r/24 excerpt from Pliny NH, book 2, chap. 6.32-44 *De positione et cursu VII stellarum*.

Astronomical Material in London, BL, MS Cotton Tiberius C. I, ff. 2r-42v

- **Extracts from Bede's De temporibus** Chaps. 11 and 13 on The Nineteen-Year Cycle and chap. 18 'The Second Age of the world
- Eugenius Toletanus, *Monosticha recapitulationes septem dierum*
- **From Pliny, NH** Book XVIII, Chap. LXXVIII (78) Weather forecasts from the sun, moon and stars. It begins: '**The theory of the winds having now in fact been set out, in order to avoid repetition it is the best plan to pass on to the remaining means of forecasting the weather, since I see that this subject also appeals to Virgil**'. Pliny, *HN*, Book 2, on the World, elements, planets, etc.
- **From Macrobius** Book I, chap. 22 (de situ orbis): 11-13, Book II, chap. 11
- **Isidore's Etym, Book XIII On the cosmos**, Chap. 6 The circles of heaven (de circulis caeli)
- From **Isidore, DNR**, chaps. 4, 10, 11, 23 (followed by a diagram of the planets), 37 (De nomina ventorum)
- **Pseudo-Bede**
- Acrostic Verses by **Abbo of Fleury**
- **Aratea**
- **Anonymous treatises:** De concordia solaris cursus et lunaris - De concordia maris et lune
- **Martianus Capella, De nuptiis,**
- Anonymous treatise: Dimensio celestium spatiorum secundum quosdam

London, BL, MS Cotton Tiberius C.i, fols. 20v-21r 'On Stars'

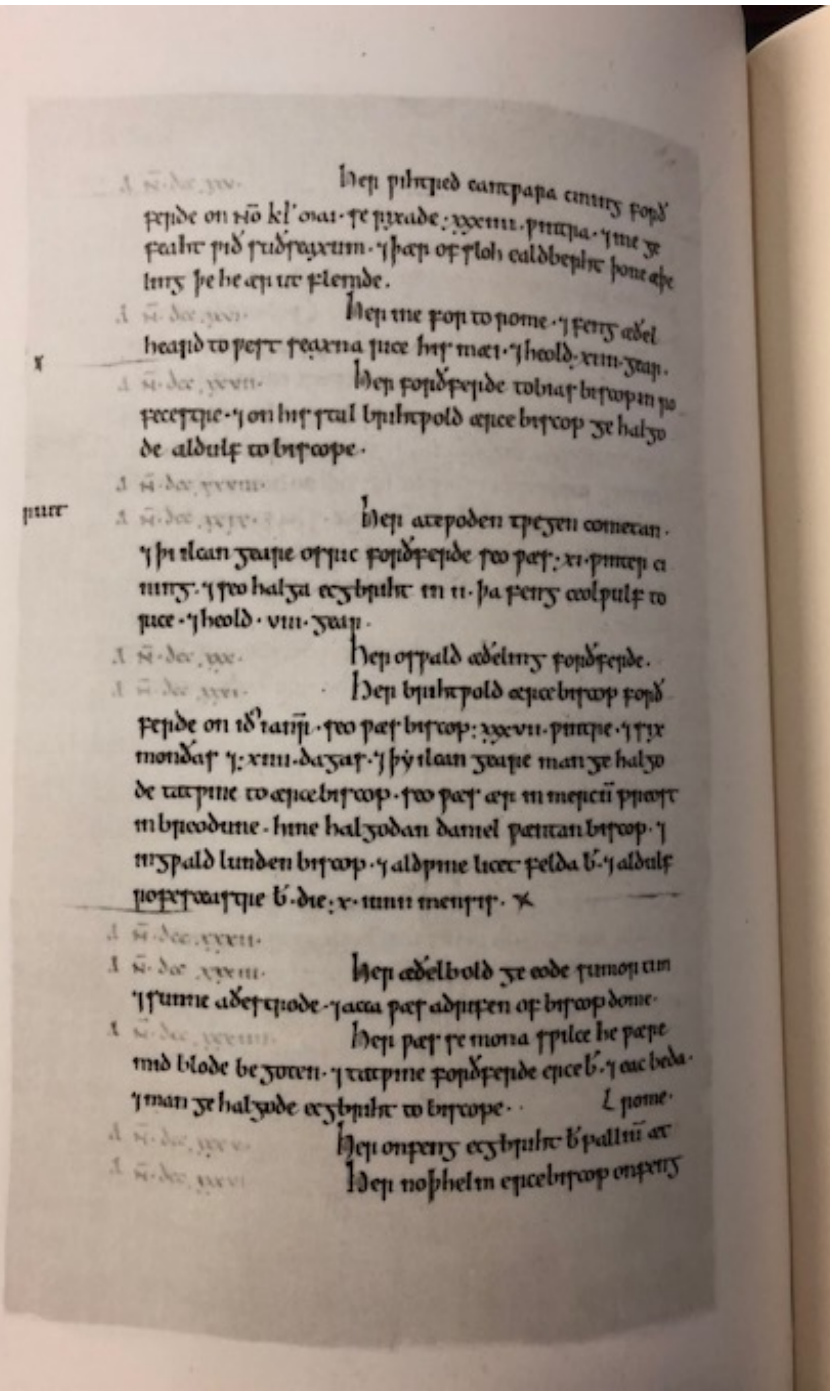


larū iubar uocat. qđ in modū iube radii ipsorū extendant. Cometes uero
stella q̄tēpouib' congruis dī nutu apparet idō uocata ē. qđ coma luminis
ex se fundat. & cū apparuerit. aut pestilentia. aut fame. aut bella
significat. excidium etiā patrie. mortēq; p̄ncipū. Comete autē latine
crinite appellant. q̄a in modū crinū flamas spargūt. q̄s philosophi
dixerūt. xxx. ēē & ampli. & q̄da astrologi earū nomina & effectus

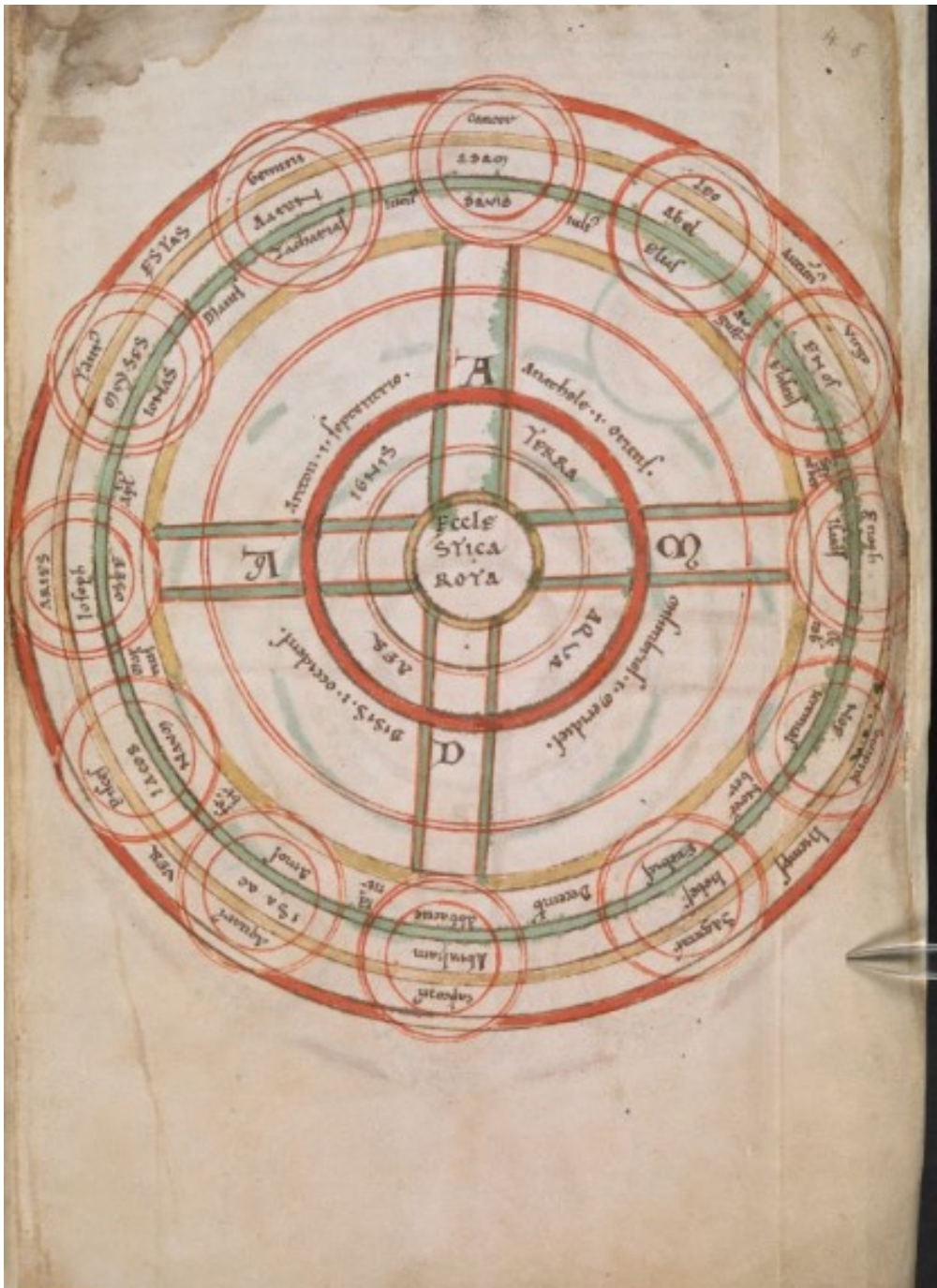
Cometes uero stella quae temporibus congruis domini nutu apparet, ideo uocata est quod comas luminis ex se fundat, et cum apparuerit aut pestilentiam aut famem, aut bella significat, excidium etiam patriae mortemque principum (A short Compilation on the Constellation as in Tiberius B. v). Cometes autem latine crinite appellantur quia in modum crinium flammam spargunt quas philosophi dixerunt xxx esse et amplius et quisdam astrologi earum nomina et effectus scripsere. (Isidore, Etym., book lxxi, chaps. 16-17)



cometa
apparuit



Year 729 Anno dominicae incarnationis DCCXXVIII **apparuerunt cometae duae** circa solem, multum intuentibus terrorem incutientes. Una quipped solem praecedebat mane orientem, altera uespere sequebatur occidentem, quasi Orienti simul et Occidenti dirae cladis praesagae; uel certe una diei, altera noctis praecurrebat exortum, ut utroque tempore mala mortalibus imminere signarent. Portabant autem facem ignis contra aquilonem, quasi ad accendendum adclinem, apparebantque mense Ianuario et duabus ferme septimanis permanebant. Quo tempore grauissima Sarracenorum lues Gallias misera caede uastabat, et ipsi non multo post in eadem prouincia dignas suae perfidiae poenas luebant. (Bede's *HE*, Book V, chap. 22)



London, BL, MS
Cotton Tiberius C
I, fol. 5r

Ælfric's De Temporibus Anni On the twelve winds

The air, when it is stirred up, is wind. The wind has various names in books. The name is determined by where it blows from. There are four principal winds: the first is the eastern wind, called *Subsolanus* because it blows from the place where the sun rises and is very temperate. **The second principal wind is southern and is called *Auster*; it stirs up clouds and flashes of lightning and blows various kinds of pestilence throughout the earth.** The third principal wind is called *Zephyrus* in the Greek language and *Favonius* in Latin; it blows from the west and through its blowing all earthly plants revive and bloom, and that wind dissipates and thaws every winter. The fourth principal wind is called *Septemtrio*; it blows from the north, cold and snowy, and it makes dry clouds. These four principal winds have eight other winds among them in the orb of the earth, always two winds between two principal winds. We could tell their names and the way they blow if it did not seem wearisome to write it. Nevertheless, one of those eight winds is called *Aquilo*; it blows from the north and east, and it is high and cold and very dry. It is called *Boreas* by another name, and it entirely drives off and puts to flight the pestilence that *Auster*, the southern wind, engenders. **It seems to us too complicated to speak further about this** (*Unc ðincð to menigfeald þæt we swiðor embe ðis sprecon*).

London, BL, MS Harley 3667, fols. 1-17:

- ff. 1r-2v: Part of an Easter-table with obits and other historical notices, pertaining to Peterborough Abbey.
- f. 3r-4r: A letter from Dionysius Exiguus to Bonifatius on the date of Easter.
- f. 4r-v: Notes on years (anni communis)
- f. 4v: Apuleian
- f. 5r: An Apuleian Sphere
- f. 5v: A circular diagram of the twelve winds
- f. 6r: A circular diagram listing the months and numbers related to lunar months.
- f. 6v: A diagram of the branches of knowledge, labelled 'Phylosophyae divisio'.
- f. 7r: A diagram of complex acrostic poem which can perhaps be attributed to Abbo of Fleury
- f. 7v: A diagram of creation
- f. 8r: 'Byrthferth's diagram' of the physical and cosmological fours, f. 8v: A map of the world based on a T-O model
- f. 8v-10v: Abbo, *De differentia circuli et sperae*, including tables (ff. 9v-10r), a diagram listing the signs of the zodiac (f. 9v), a diagram showing the phases of the moon in relation to the sun (f. 10r).



QUARTIAM inde. Luna quidem eccentricam sui circuli parte obinet. Iste
in circulo conuenit mater est telluris. Pitagoras si uer signat. Antra terra ad
lunam. 230000. milia stadiou est colligit. Ad solem ab ea dupli. Inde ad
xvi. signa ut placuit. Item aut idem. quod luna e ampliat tra.

London, BL, MS
Harley 3667, fol. 5v



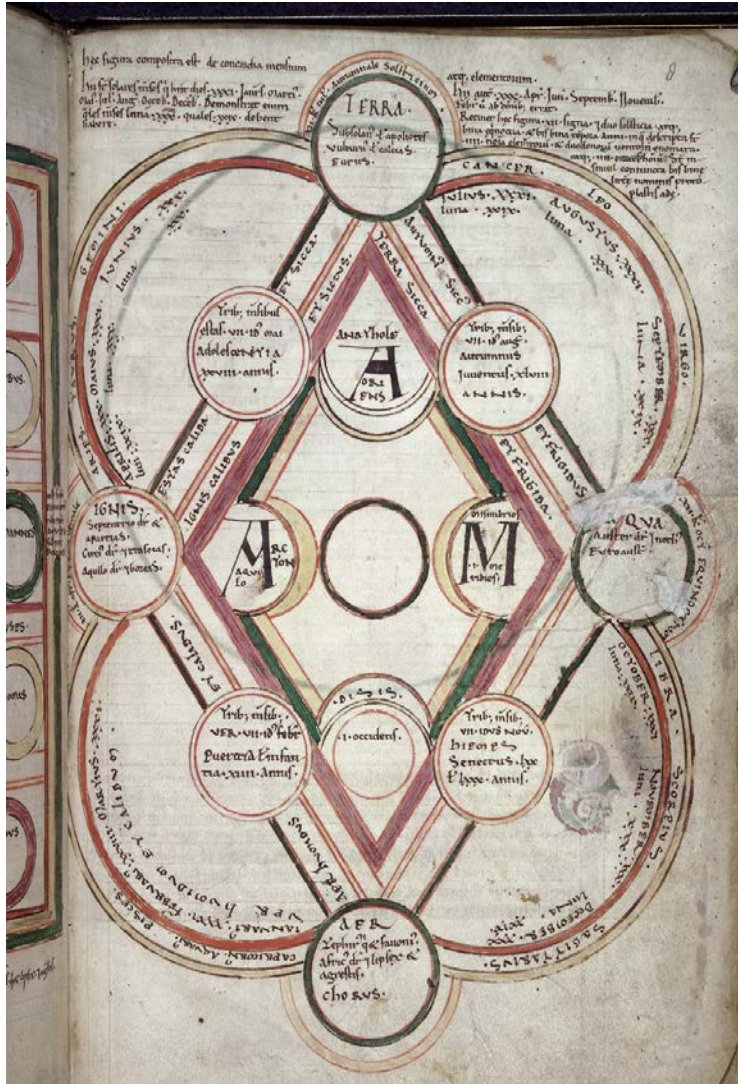
Riht east
Subsolanus .id.est.
orientalis uentus . dicitur et
apoliotes.
norð east
Vulturinus uel calcias
Eurus . id est. suth east

London, BL, MS Harley
 3667, fol. 7v

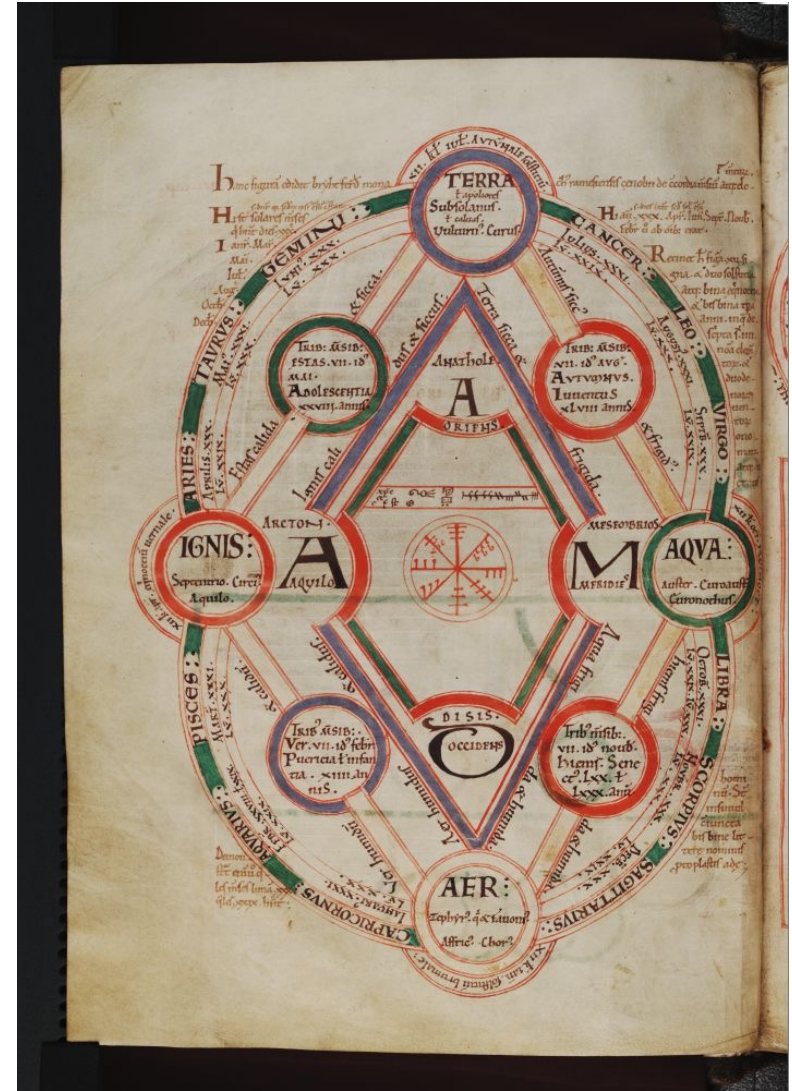
Diagram of Creation
 , 'Alia celi in qua sunt
 nomina xxiii seniorum',

Striking similarities have been noted between Tiberius C. i + Harley 3667 and Oxford, St John's College, MS 17, Thorney Abbey 1110s

Harley 3667 f. 8 Diagram



Harley 3667, fol. 8r
Byrthferth's diagram of the physical and cosmological fours

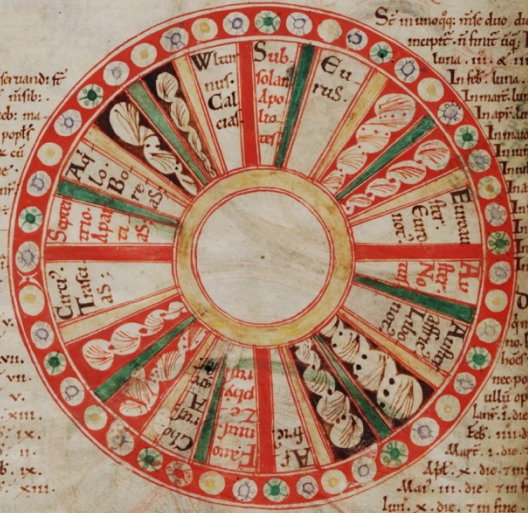


Oxford, St John's College, MS 17, fol. 7v

Ventoz pmi cardinal' speritno. frigid' & nuul'. flac recte abax. & fac' arida frigora & sicca' nubes. Cunct' & calidat. hic adext' sperit' inuolunt' fac' muel' & grandinu' coagulationes. A quilo uentoz q' & boreal' uocat' ex alto fluit. gelid' atq; sicc'. & sine pluuia. qui n' discunt nubes. sed dist' magis. Sc' uentoz cardinal' subfolam. qui & apoloet. hic aborau' inuolunt' sol'. & z' equat'. Quatu' ipse qu' calidat uocatur. dextero. subfolam. hic dissoluit cuncta atq; discat. Cur' ex sinistro latere uentoz subfolam orientem nubib' irrigat. C'ra uentoz auster. plage meridiane cardinal'. q' & noc'. Ex huius lat' fluit. humid'. calid'. atq; fulminant. Generant' larga' nubes. & pluuia' leuissima'. solent' em' flores. Curo auster. calid' uent'. dext' is inuolunt' auster. Eura' uoc' uent' tep' calid'. a sinistro lat' itri' asp'unt. Quare u' cardinal' z' equat' & q' fac' om' abocedente uentoz flat. Iste breuis. rigorem gracillima' uice relaxat. flores pducat. Afferit' q' dr' l'ux' z' eph'no dextero latere inuolunt'. hic generat' tepetates & pluuia'. & facit' nubiu' conuulsi' & sonit' tonitruoz & crebr' uent' tuum. fulgur' u' uis' & fulminu' impuls'. Chorus qui & agit' ex sinistra parte fac' om' ap' ruit. Eo flante. in oriente' nubi' sunt grandia' serena. Quosda' aut' ch'ill' p'p'oz looz flat' caris appellat' uocabulis. Quo ex numero sunt istura' fr' carbas' in alia. Iuppiter' dextera' magnas' eson. In gall'ia circui'. In hispania sacro' uent' q' p'ca quidem innum'abiles' ex' nubi' aut' mistag' aut' sub' hominat. Duo sunt' ex' ab' ubiq; sp' mag' q' uent'. aua' & al'ant'.

Ratio spe
ar de quana
die mcurr
cdu l'icral
spxe. & qd
utur. Si a
lacoris le
die conge
& r'p'icra
cer. Si a
ccur.

Isti dies obseruandi s'
in singulis' m'ib'.
in qb: d'ob: ma
l'ic' & p'p'f'
q' p'p'oz ca
p'hamone.
In m'ise tant'
m' d'ob' d'
pm.
In febr'. ii.
In mar'.
vii.
In apr'. v.
In mai'.
xiii. l' xii.
In iun'. vii.
In iul'. v.
In aug'. xiii.
In sep'. ix.
In oct'. ii.
In nou'. ix.
In dec'. xiii.



Se' in m'og' m'ise duo dies. & al' me
mev' n' h'nt' ag' In m'ise uen
tona. iii. & iiii.
In febr'. luna. v. & vi.
In mar'. luna. vi. & vii.
In apr'. luna. vii. & viii.
In mai'. luna. viii. & ix.
In iun'. luna. ix. & x.
In iul'. luna. x. & xi.
In aug'. luna. xi. & xii.
In sep'. luna. xii. & xiii.
In oct'. luna. xiii. & xiiii.
In nou'. luna. xiiii. & xv.
In dec'. luna. xv. & xvi.
Ded' p'p'oz
q' mal' uent'
no. h' d'ob' s'
h'oc' se' ad uent'
no' p'p'oz' d' uent'
ullu' op' m' d'ob'
lun'. i. die. 7 m' fine. x.
Feb'. i. die. 7 m' fine. x.
Mar'. i. die. 7 m' fine. x.
Apr'. i. die. 7 m' fine. x.
Mai'. i. die. 7 m' fine. x.
Jun'. i. die. 7 m' fine. x.
Jul'. i. die. 7 m' fine. x.
Aug'. i. die. 7 m' fine. x.
Sep'. i. die. 7 m' fine. x.
Oct'. i. die. 7 m' fine. x.
Nov'. i. die. 7 m' fine. x.
Dec'. i. die. 7 m' fine. x.

Iste unig
guertat
p'nt'. &
mar'. x
xi. Se t

Oxford, St John's
College MS 17, fol.
40v
Thorney Abbey

The contents of St John's 17 are as follows:

Miscellaneous texts and tables (1v-12r), only a few are likely to have had a connection with B; but among these are *De Concordia mensium atque elementorum* here attributed to him (fol. 7v)

B's epilogus (12v-13r)

the computus itself (13v-41r), consisting of items from each of the categories of computus described above, especially the one compiled by Abbo; also Abbo's *De differentia circuli et sperae*, extracts from Isidore, DNR and Bede, DTR, and the 'Sphere of Pythagoras'

Tracts and tables on arithmetic (41v-58r) ... added to the collection after B's time.

Bede DTR (58v-61v)

Bede DNR with accompanying glosses (62r-65r, incomplete through physical loss)

Bede DTR, including *Chronica maiora* and accompanied by intensive glossing (65v-123r)

Helperic, DC (123r-135v)

Two computistical epistolae of Dionysius Exiguus, to Petronius and to Bonifatius and Bonus (135v-138v)

Easter tables for the years 532-960 (139v-143v, completed by Cotton Nero C. vii, fols. 80-84, for the years 961-1421); further Easter tables for the years 1422-2612 (144r-155v)

Miscellaneous materials on computus, grammar, prognostications and medicine.

From P. Baker and M. Lapidge, ed. *Byrthferth's Enchiridion* (EETS,SS. 15, 1995), pp. liii-liv)