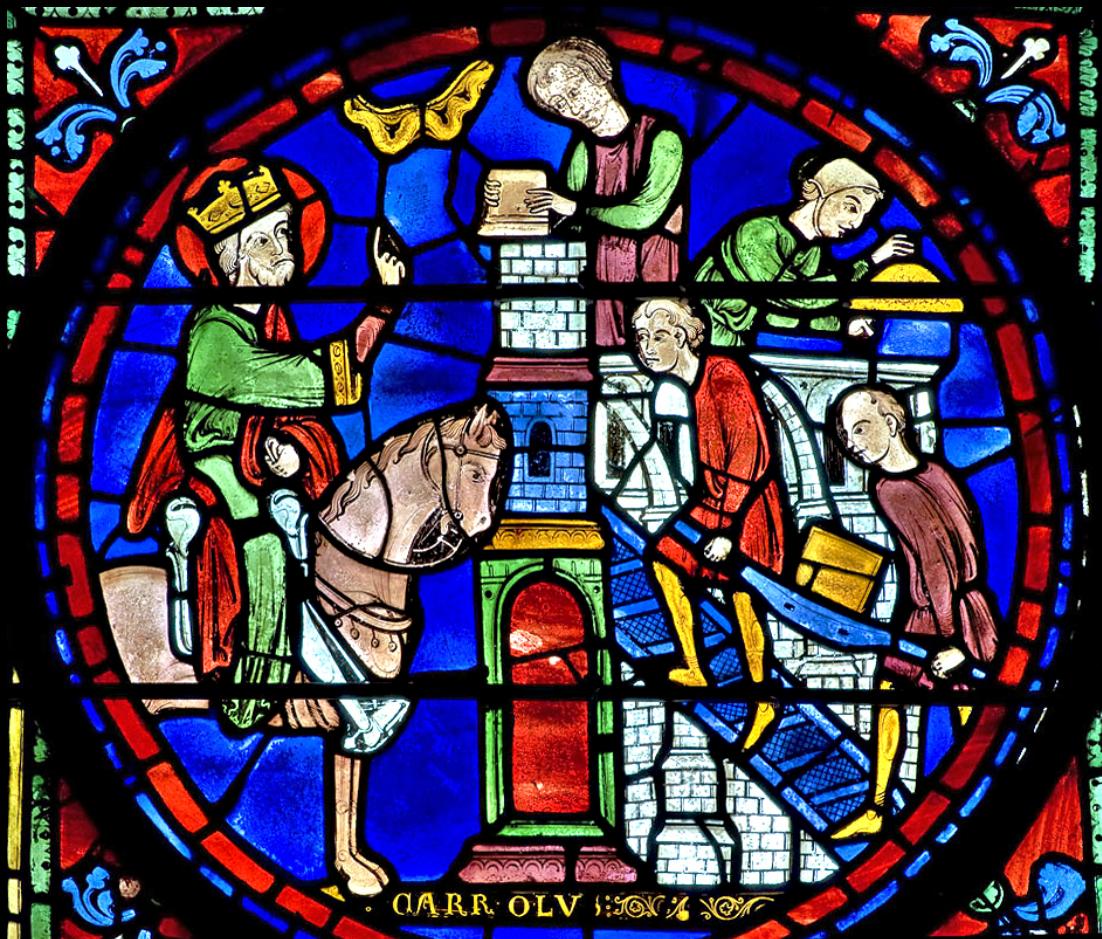


Downright Medieval: Information Visualization in the Middle Ages

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Carolingian Renaissance



8th to 9th Century

Charlemagne (742 – 814)

- Increased Scholarship
- Standardized:
 - ✓ Language
 - ✓ Writing
 - ✓ Education

Charlemagne overseeing the construction of a church
Bay 07, *The Legends of Charlemagne*, Chartres Cathedral

Tables



King List, Almanac, 1st qtr 14th C

Harley MS. 2332, British Library



Religious & Medical Text, Roger Frugard of Parma, 1st qtr. 14th C
Sloane MS. 1977, British Library

340

I FILIIUS		I FILIA	
PATER	MATER		
II NEPOS		II NEPTIS	
PRONE POS	PRO NEPTIS		
III ABNT POS		III ABNEP TIS	
FATRISPA TUS ABNT NEPOTIS	CONFABNT LUS MA TERA.	CONFABNT LUS MA TERA.	
IV ADNEPOS		IV ADNEP TIS	
PRATELI US ABNT NEPOTIS	CONFABNT LUS MA TERA.	CONFABNT LUS MA TERA.	
V TRINEPO TIS FILIUS		V TRINEPIS FILIA	
PRATELI US ABNT NEPOTIS	CONFABNT LUS MA TERA.	CONFABNT LUS MA TERA.	
VI TRINEPO TIS NEPOS		VI TRINEPIS NEPTIS	
PRATELI US ABNT NEPOTIS	CONFABNT LUS MA TERA.	CONFABNT LUS MA TERA.	
VII TRINEPO TIS NEPOTIS		VII TRINEPIS NEPTIS	
PRATELI US ABNT NEPOTIS	CONFABNT LUS MA TERA.	CONFABNT LUS MA TERA.	

Consanguinity Table, Isidore of Seville (c. 560 – 636), *Etymologiae*, c. 880

St. Gallen, Cod. Sang. 231

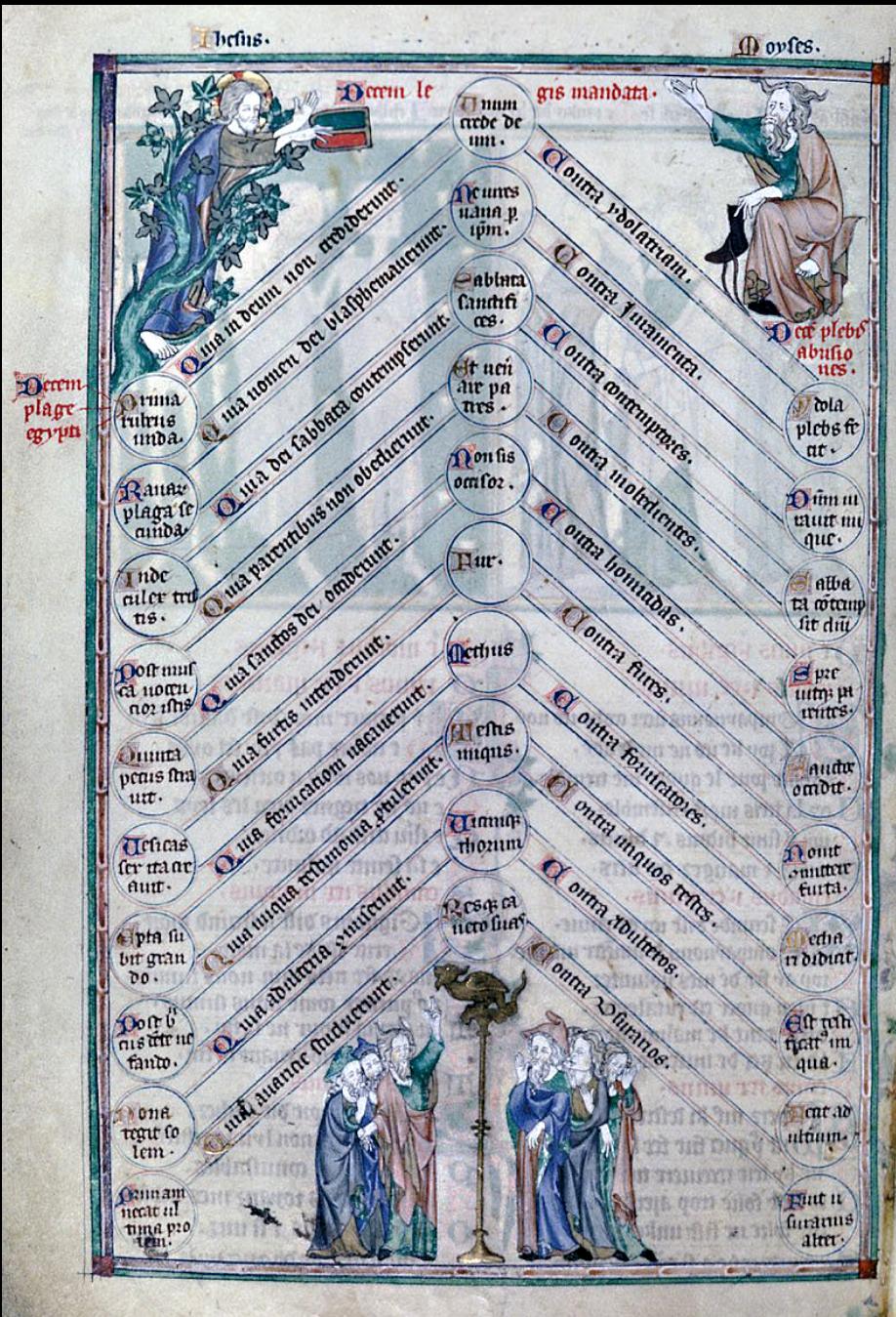


Table of the Ten Commandments, c. 1310 -1320

Arundel MS 83, British Library

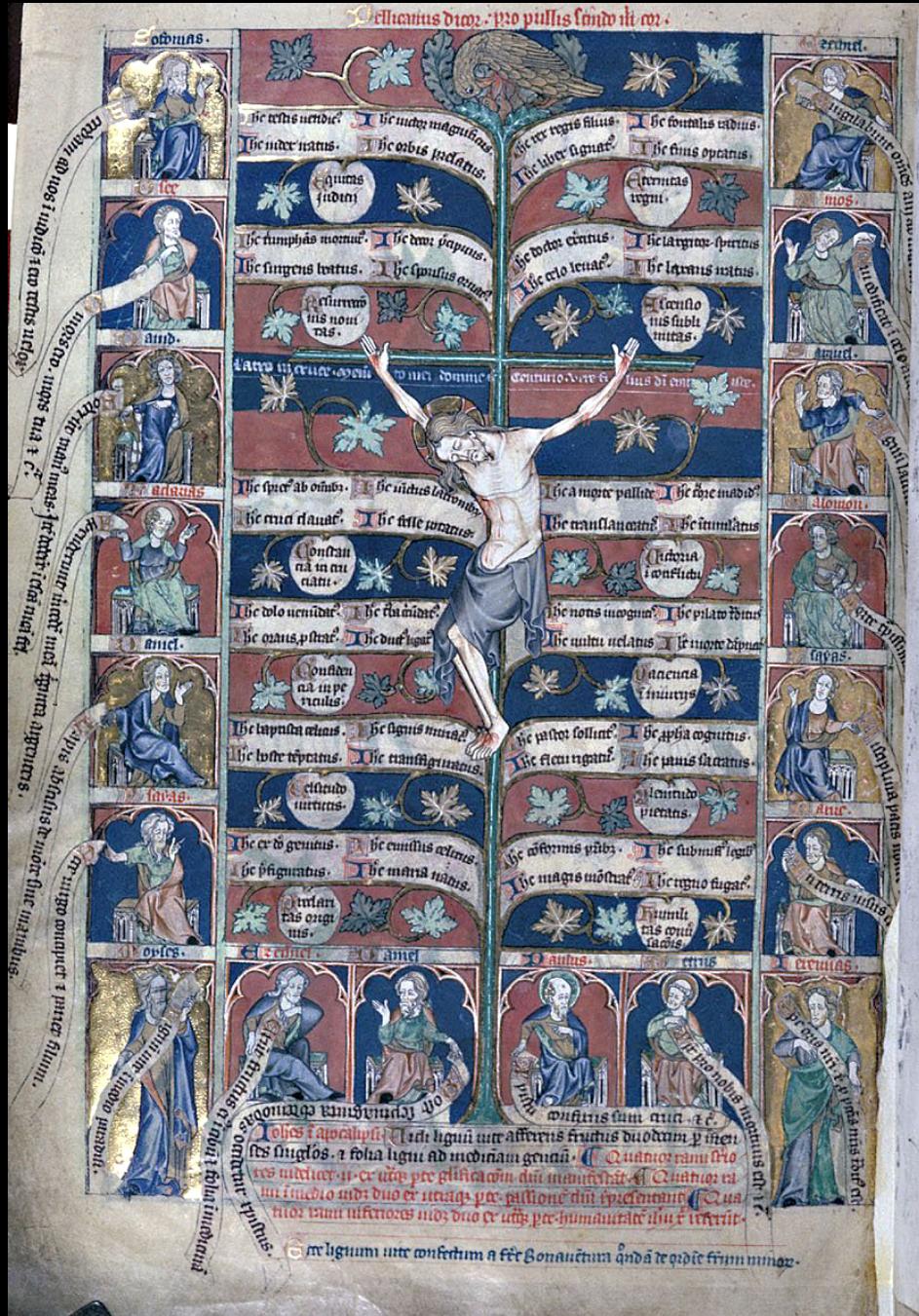
Tutris virtutum et donis ex. Speculum Theologiae

Custodes.		Tunc pietatis		Disciplina ad mortales		Justitia ad repente		Iustitia ad malos		Caritas ad bonos											
Innoerita	punctas.	Nomina	Lano.	Intelligēta	Tunc ordi-	pietas.	Piudicēta	Gloria	Cōmūs	ignitā											
Fides.	Unde	Ima scām	Credē eu-	honorā	Venerabē	Obserua	Tene p̄missa	Seruātē	in capite												
in dīm.	cereliam	charitē.	ebigim	sāmenta	mandata	baptizata	cōmūgū	mōtione													
Spes.	Elo longa-	son sis	z̄ jor sis	partis	Cave tibi	fate	Hō capies	Raro sp̄	Solne promissa-												
	minis.	p̄litoz.	ſūturo.	una	apūrio.	indica	mūnera	deas.													
Mia.		vesti	Cibā fa-	Porta ſā	vibra eſ-	Solare	Sufſage	Sepli de													
		midos.	meſtos.	bandos.	teſt.	capuas.	p̄grino.	fundos.													
Clementia.	Elo mā	Dilige	gō	Custodi.	In p̄mē	No ſcēs	P.ūtificā	Sis curialis													
	ſuens.	x̄m	thūn.	alām uā.	parē.	diſordū	diſordēs.	ne cūclosig.													
Constanza	Elo	contēpē	Cuita	Ueling	fuge in	Allyende	Refere	Agnare	Abneg.												
	retas.	uitia.	ſupbiā.	auatād.	niſum.	atidam.	nam.	gūlām.	lūrmān.												
Flūdūtia	Ume	ſouſis	Foris	Foris	Cohere	ſolitā	Are odo	Refrena	Temperā												
	ſebrie.	etiae.	uolentē	hyſtio.	auditi.	niſum.	ratiōn.	tābūm.	gūtūm.												
Perseveria	Elo	ſer.	Honorā	Dilige	Ama tibi	Hō ſpas.	Honorā	ſamulare	Elo nē	Santa											
	maior	ſenies.	ſuueies.	ſuueies.	pares.	inferiores.	penes.	lōmū.	gōdūs.	identic.											
Sciendū	hoc facias alii	Aſſeta	Hene	Cogia	Deſde lōi	ſallū n̄	Hō q̄q̄f.	Hō oti	Dilige in												
	q̄t̄ uis fieri.	p̄dysim.	uonū	de obui	q̄malo.	teſtūfias.	ocas.	des.	miros.												
Capitio.	Rade cū	Luge ū	ſemnē	fulli	Hene	ſallū	Hene	ſil	Elo ſu												
	reſens.	lugeb.	uſens.	uicens.	amis.	uidens.	cōdipnes.	rapis.	veris.												
Honestas	Elo	Uelue	fuge ce	Cuita	Uatātā	Hō ſis	Hō ſis	Hō ſis	Hō ſis												
	boni.	malum.	nōgētā	uatātā	uātātā	niſar.	rumores.	ſuauāce.	deritāe.	adulatāe.											
Orat̄	Elo te	ſoſis	ſoſis	ſoſis	ſoſis	moſer.	ſoſis	Logie	Ue de												
	uigilis.	uigilis.	uigilis.	uigilis.	uigilis.	uigilis.	modiue.	deliciis.	uigilis.												
honor.	Int̄cāre	Cuita	Uudi	Ama tari	Elo mori	Elo	Hō ſis	Hō agas	Hō ſis												
	gl̄os.	malos	riſdi	ueritate.	ḡtātā	lang.	Uo ſis	ſuauāce.	ſuauāce.												
Amor.	Elo	Tame	Dilige	Adora	Elo	grās.	ſpne.	bonora	Ueſeb	Mūtla ſepe											
	deuotis.	Uir.	dim.	deum.	grās.	mdū.	ſos.	Ueſeb	Ueſeb	Ueſeb											
Flānūtū turis ſapiētū eſt caritas q̄mūnū ē cumulū ordinatā.																					
Penumium.		Diligētā.		Requies.		Cuitas.		Modus.		In trūtū q̄rētū											
Eleemosia.		Pecunia.		Fermūs.		Ferme.		Philofophie.		Philofophie.											
Ueritātē.		Peneſtia.		Ferme.		Ueritātē.		Ueritātē ſcīlū p̄dārā.		Ueritātē ſcīlū p̄dārā.											
Cōfessio.		Confūmū.		Stabilitās.		Ueritātē.		Ueritātē ſcīlū p̄dārā.		Ueritātē ſcīlū p̄dārā.											
Cōfusio.		Confūmū.		Stabilitās.		Ueritātē.		Ueritātē ſcīlū p̄dārā.		Ueritātē ſcīlū p̄dārā.											
Oratio.		Stabilitās.		Ueritātē.		Ueritātē.		Ueritātē ſcīlū p̄dārā.		Ueritātē ſcīlū p̄dārā.											
Fundātū ſris ſapiētū eſt humilitās. q̄ eſt mat̄ inuitātē.																					
A fidātū ſris ſapiētū legi ſd̄ in lūtā.																					
Ut te uit ſuauāce et cuuā ūndū Turis ututū faciat te ſuauē mundū.																					

Tower of Wisdom, *Speculum Theologiae*, c. 1300

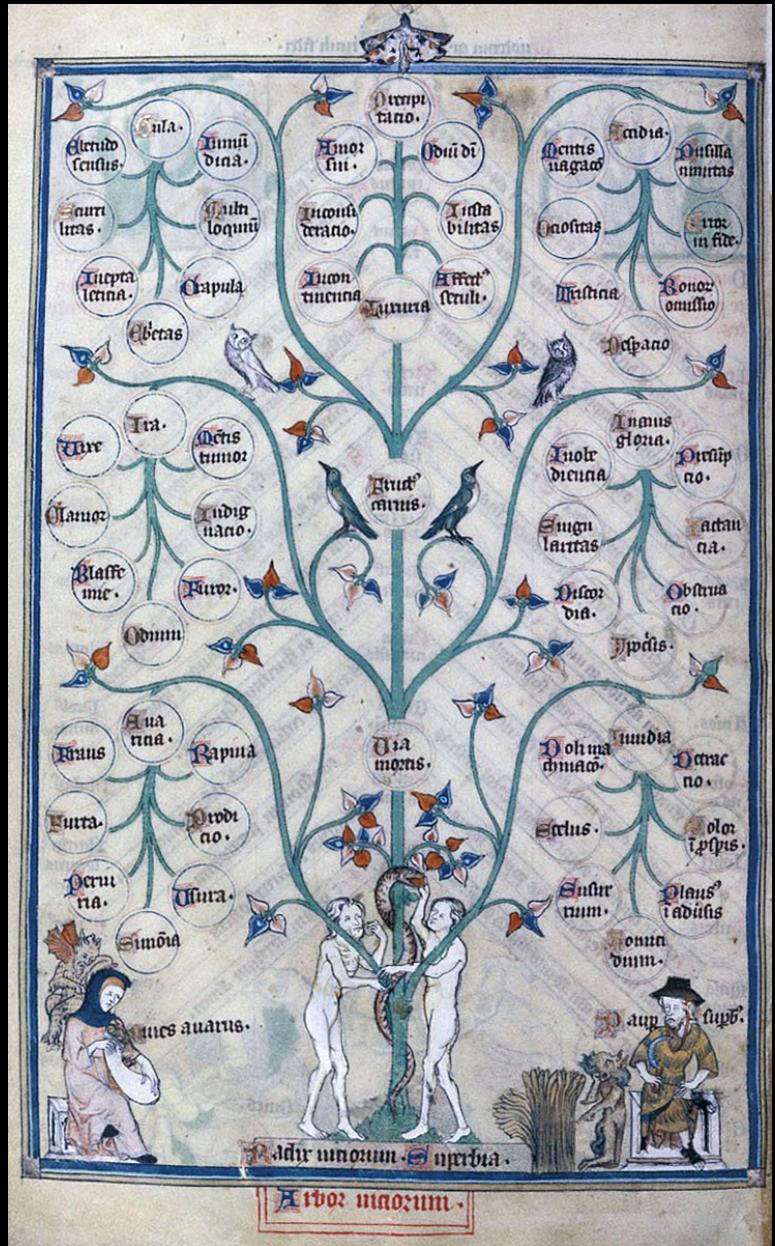
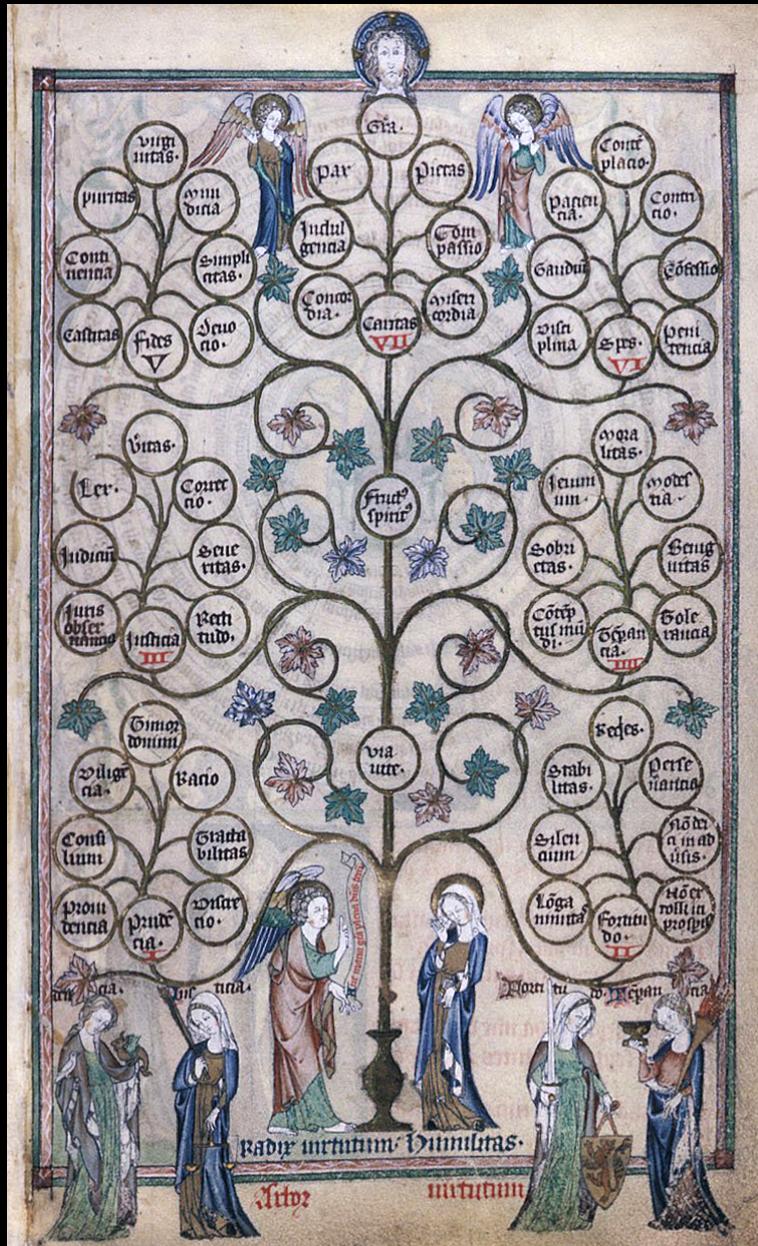
Beinecke MS 416, Yale University

Trees



Miniature of the Crucifixion and
the Tree of Life, c. 1310 -1320

Arundel MS 83, British Library



Vices and Virtues, c. 1310 -1320, Arundel MS 83, British Library



Peraldus, 2nd or 3rd quarter of the 13th C, Harley MS 3244, British Library

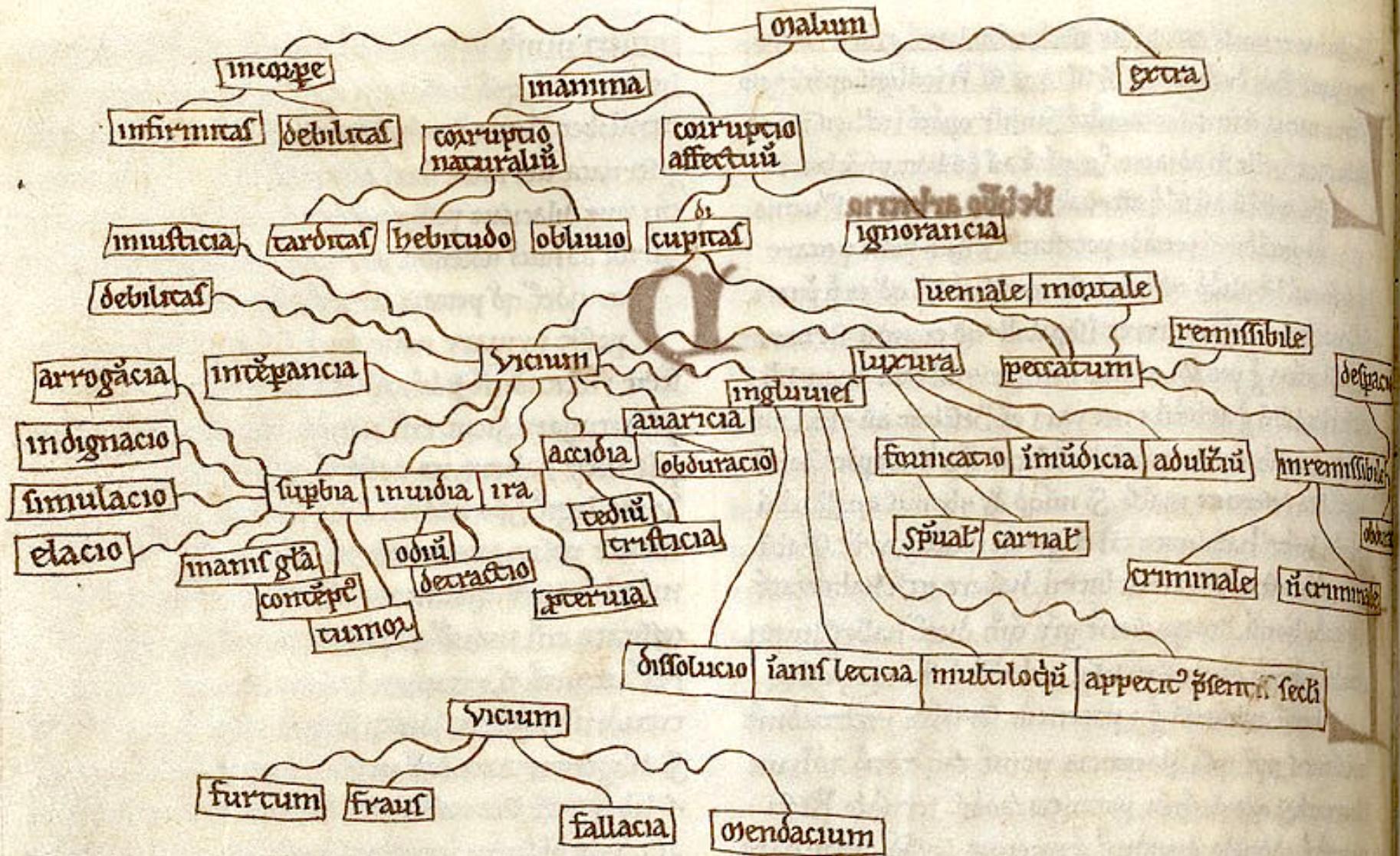
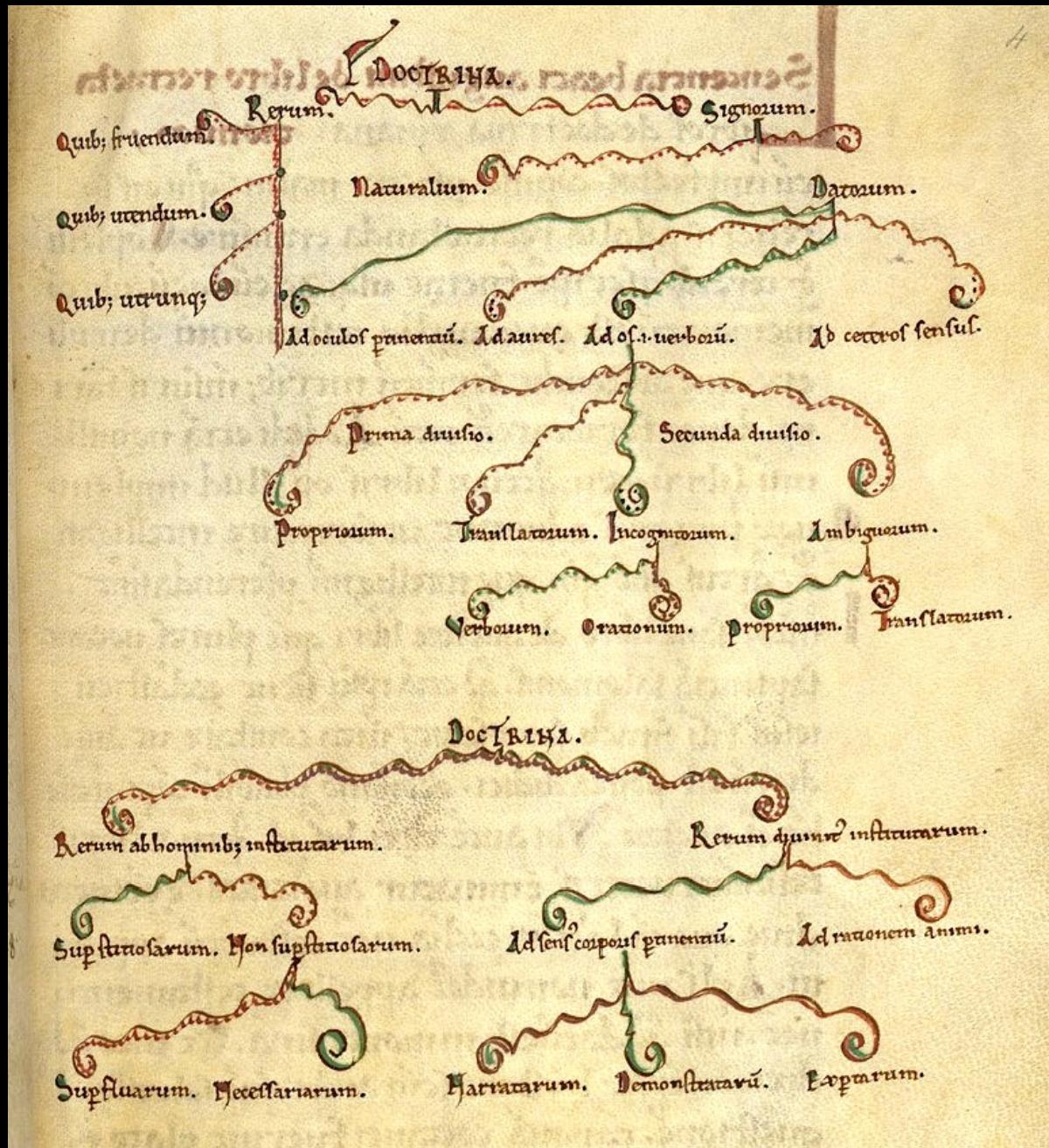
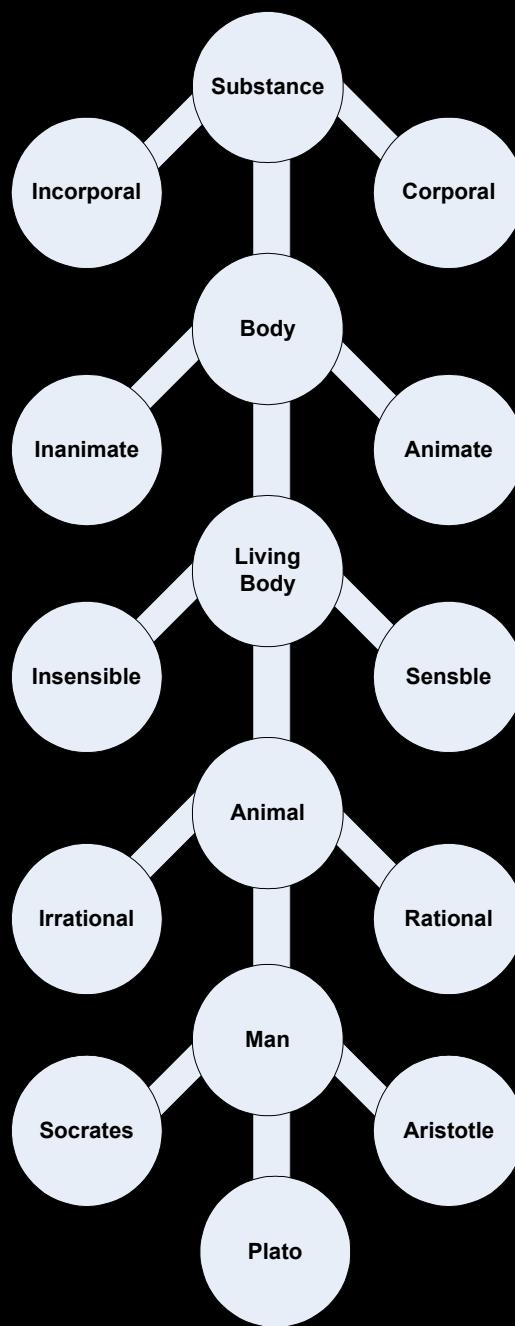
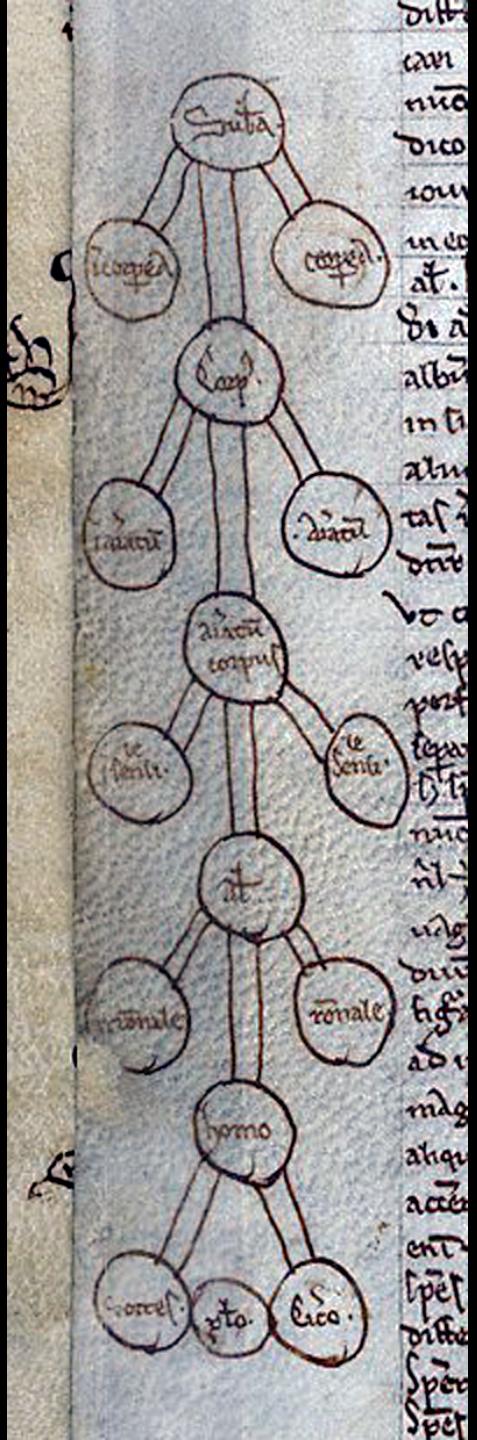


Diagram illustrating a treatise on free will, 1176, Harley MS 3038, British Library



Augustine's (354 – 430),
On Christian Doctrine,
 1202

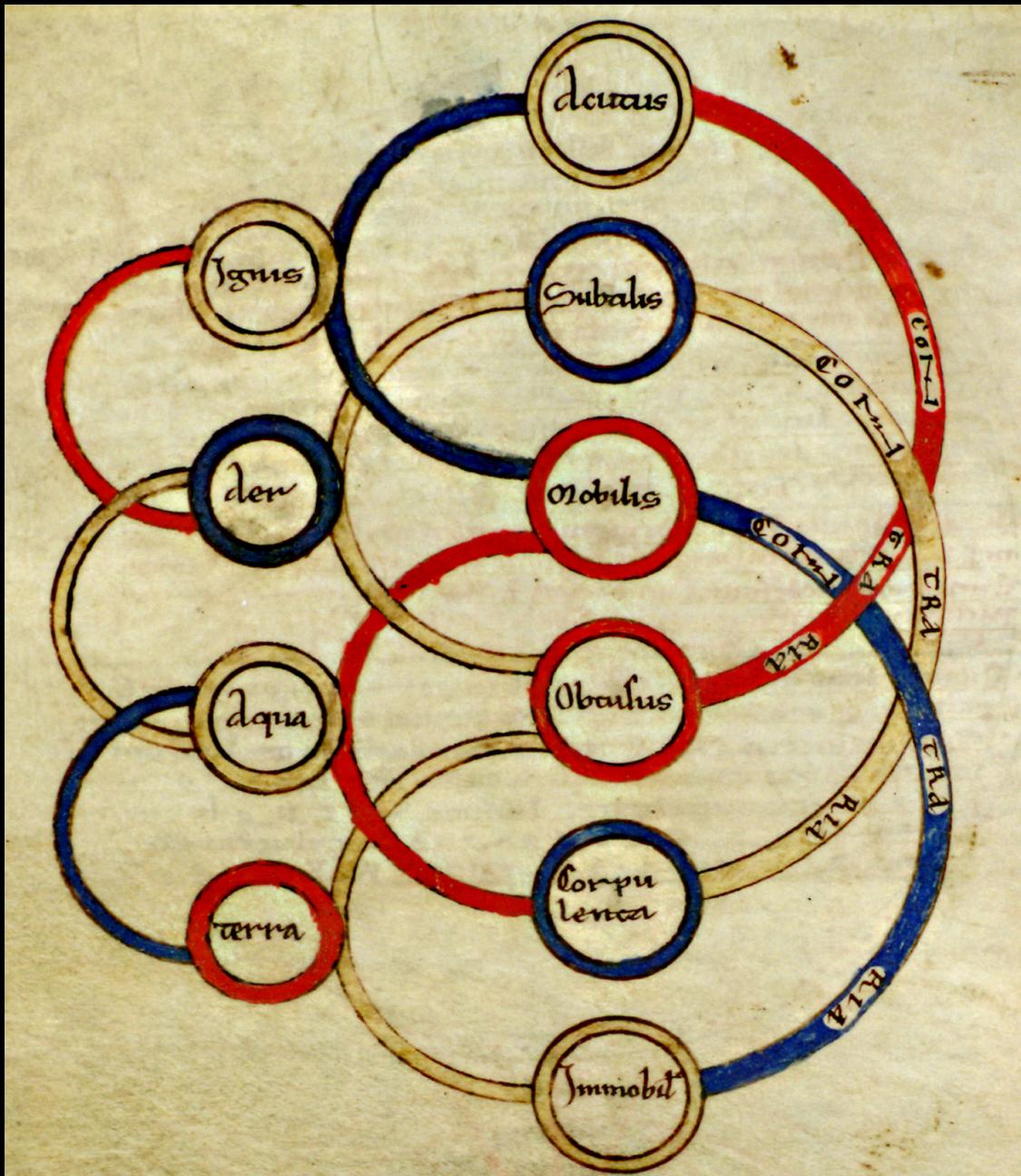
Royal MS 5B XII, British Library



Porphyry's Tree, 2nd half
12th C or 1st half 13th C.

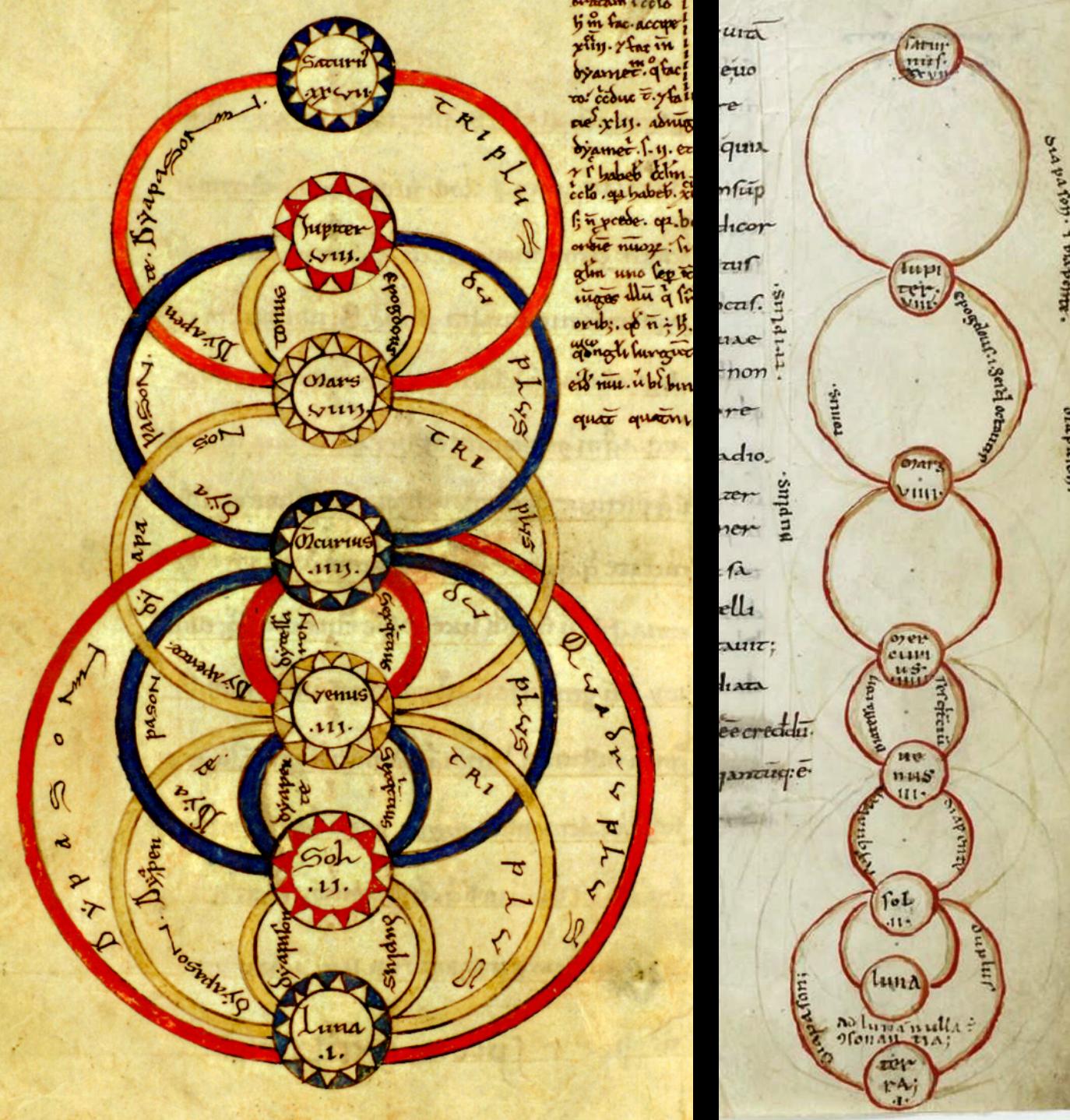
Royal MS.15 B IV, British
Library

Arcs



Elements Diagram,
1st half of the 12th century

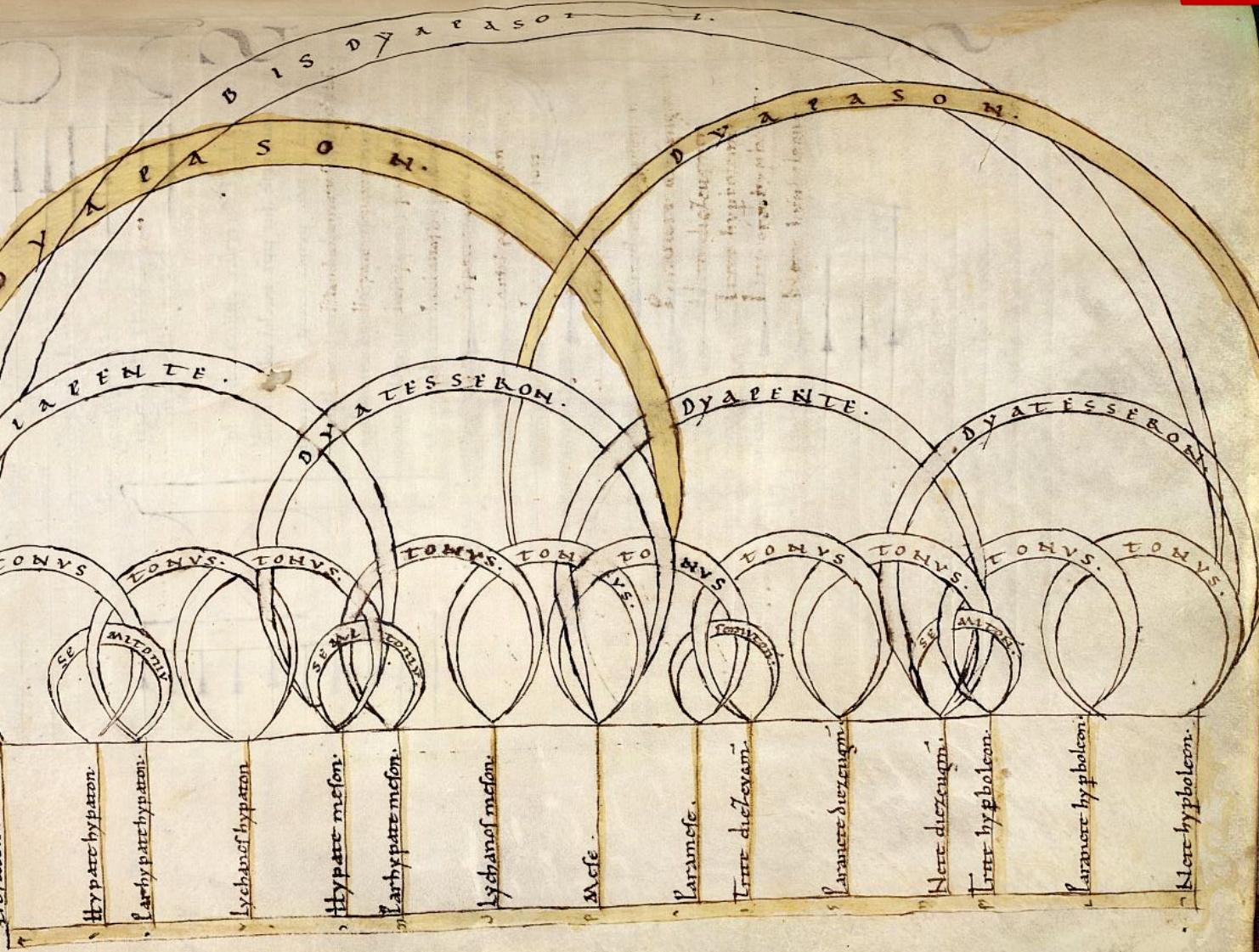
MS. Digby 23 (Pt 1),
Bodleian Library, Oxford

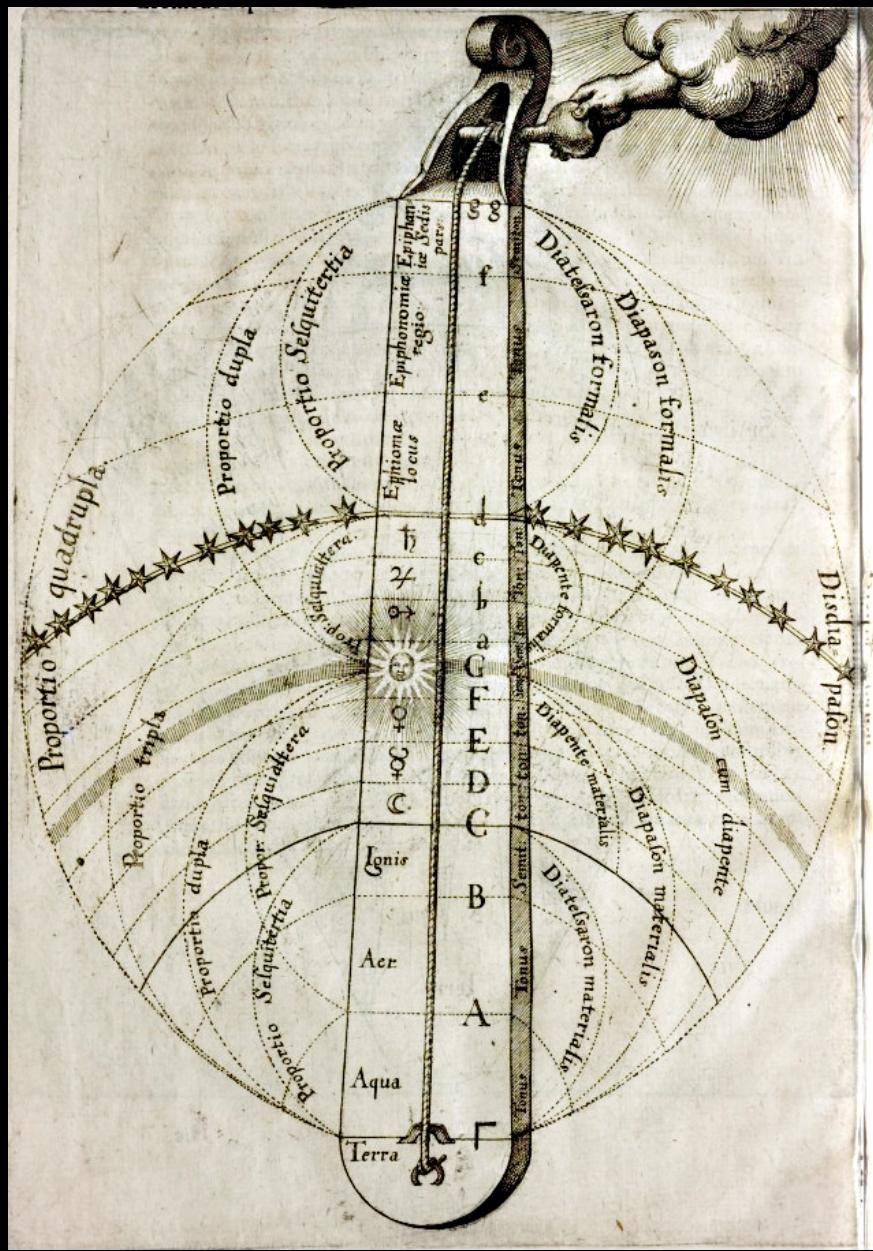


Planetary Diagram,
Macrobius (395–423)

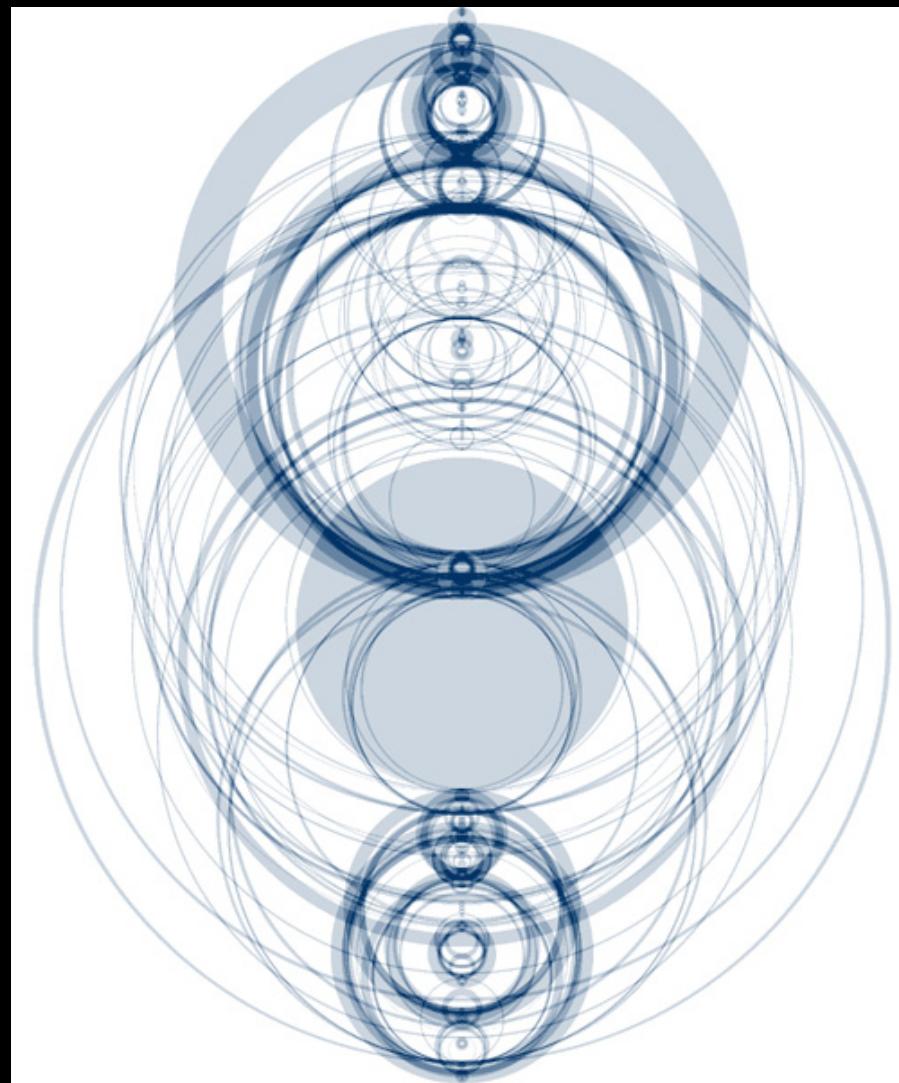
Tadēq. aclychanos hypaton resonat clystanīam ad quadrā scilicet. Quis lychanos hypaton admittit
 resonat diapente symphoniam. & abea quinta. Ruris' mēs apartamenst diffat tono. Quis eadē
 mēs admetit diapente. & facit diapente consonantia. Admetit hypbolon diapaton
 usq[ue]nt. die tenuissimum. Admetit hypbolon quā facit diapason consonantia. Cyprianus
 nos admetit hypbolon reddit hi diapason consonantiam.

Proflabonomens.



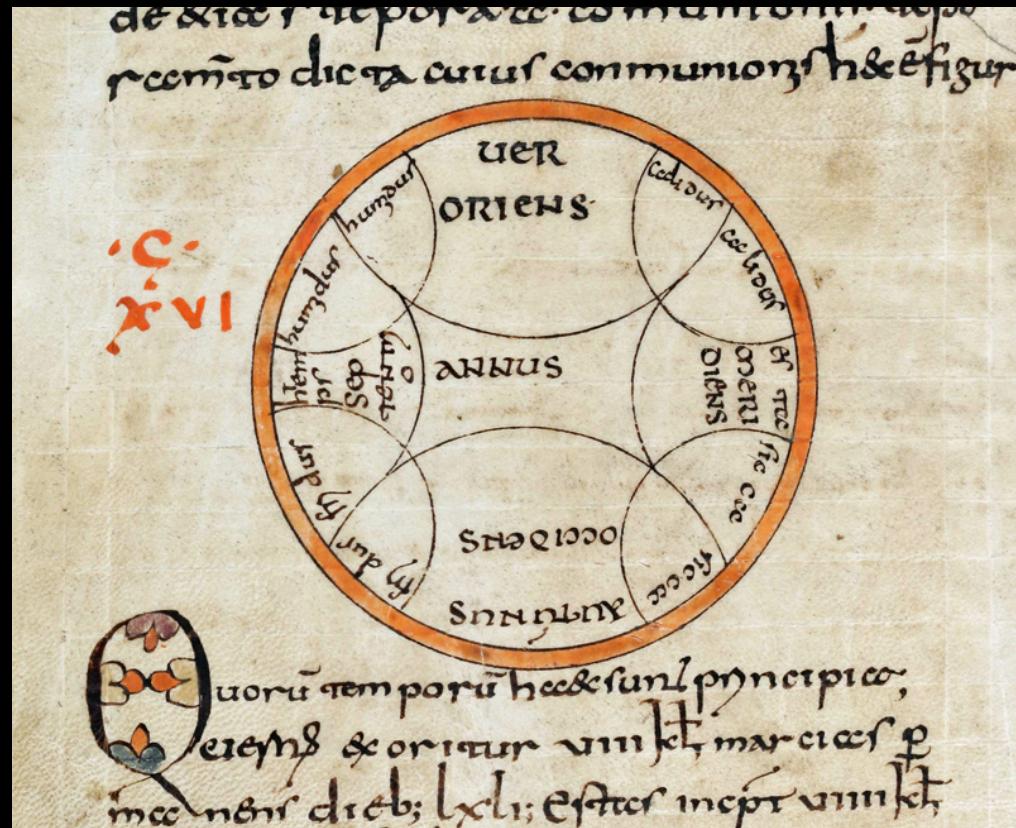


Utriusque Cosmi majoris salicet et minoris metaphysica..., 1617 – 1619, Robert Fludd

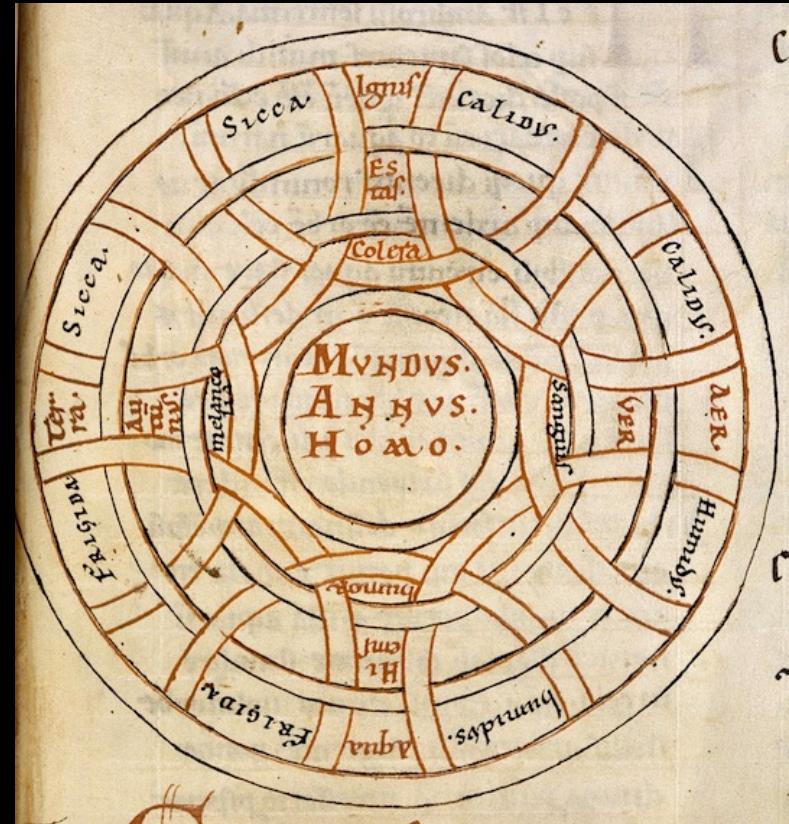


Four Seasons (Autumn), Vivaldi,
Martin Wattenberg, 2001

Rota



Annus - Mundus - Homo diagram,
Isidore of Saville (c. 560 – 636), c.760-797,
St. Gallen, Stiftsbibliothek, Cod. Sang. 225

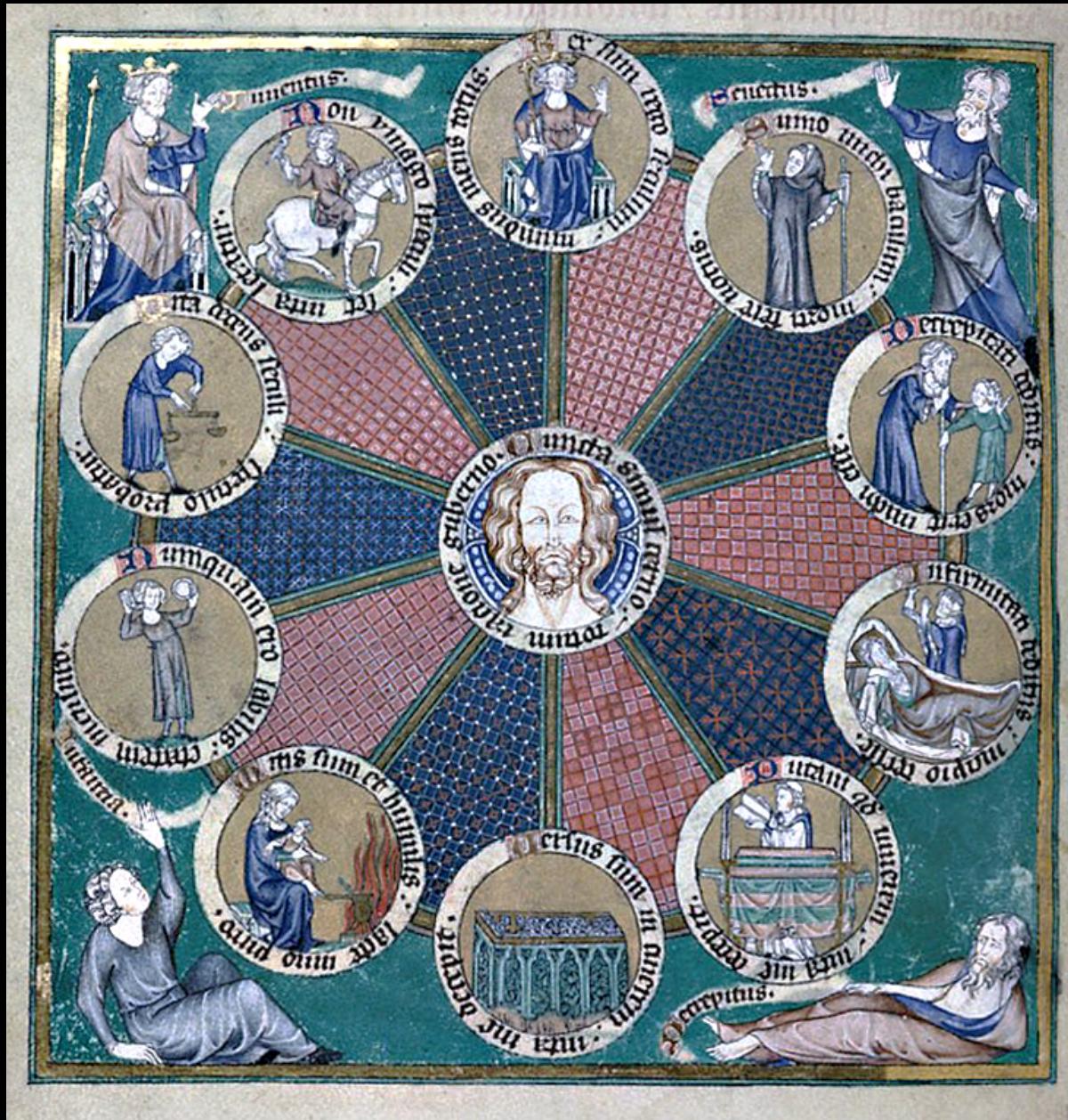


Isidore of Seville, 1136,
Etymologiae & *De natura rerum*,
Harley MS 2660, British Library



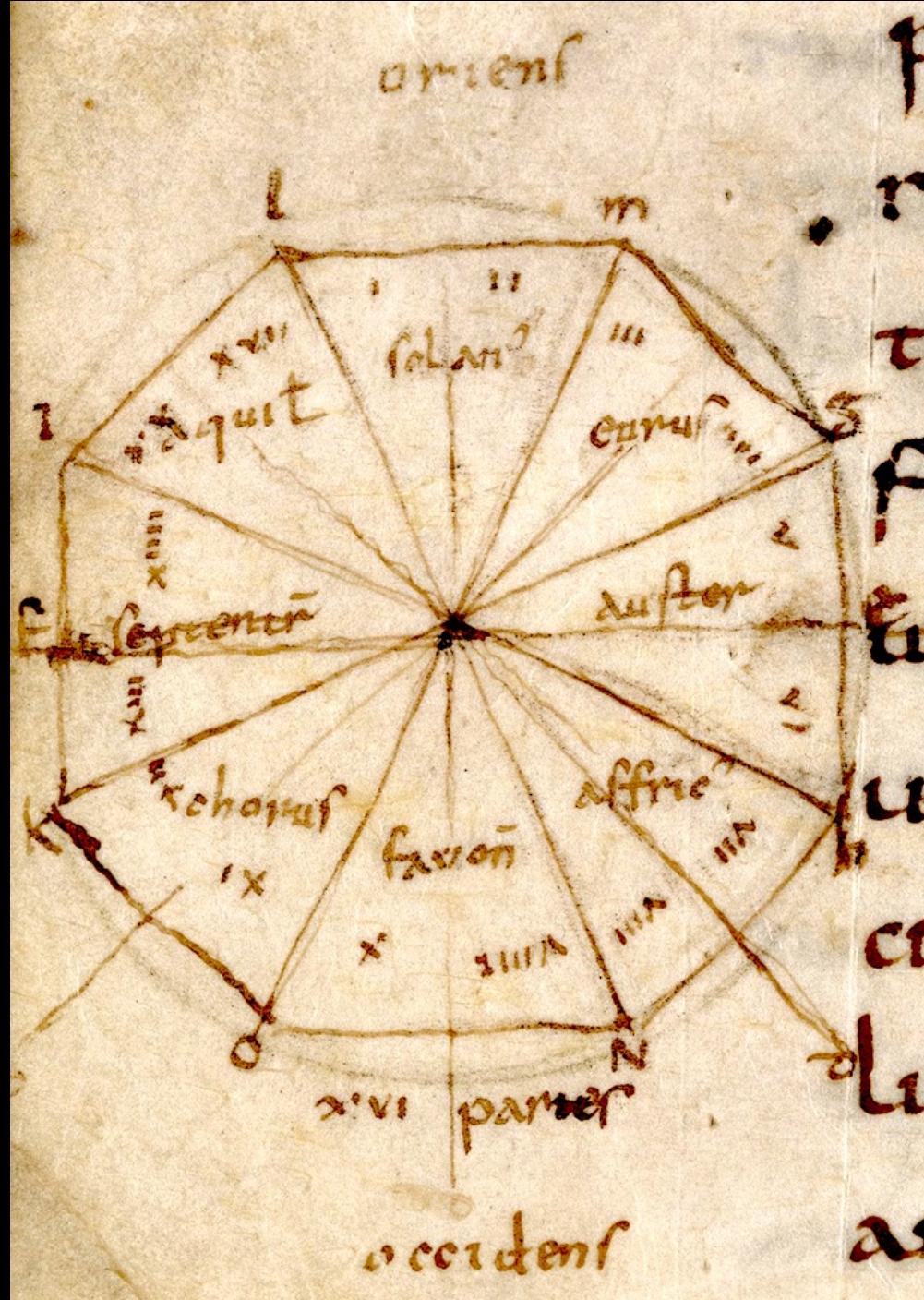
De natura rerum,
Isidore of Seville,
c. 760-780

St. Gallen,
Stiftsbibliothek,
Cod. Sang. 238



Ten Ages of Man,
c. 1310 -1320

Arundel MS. 83,
British Library



Wind Diagram,
Marcus Vitruvius Pollio, *On
Architecture (De Architectura)*,
1st qtr of 9th C

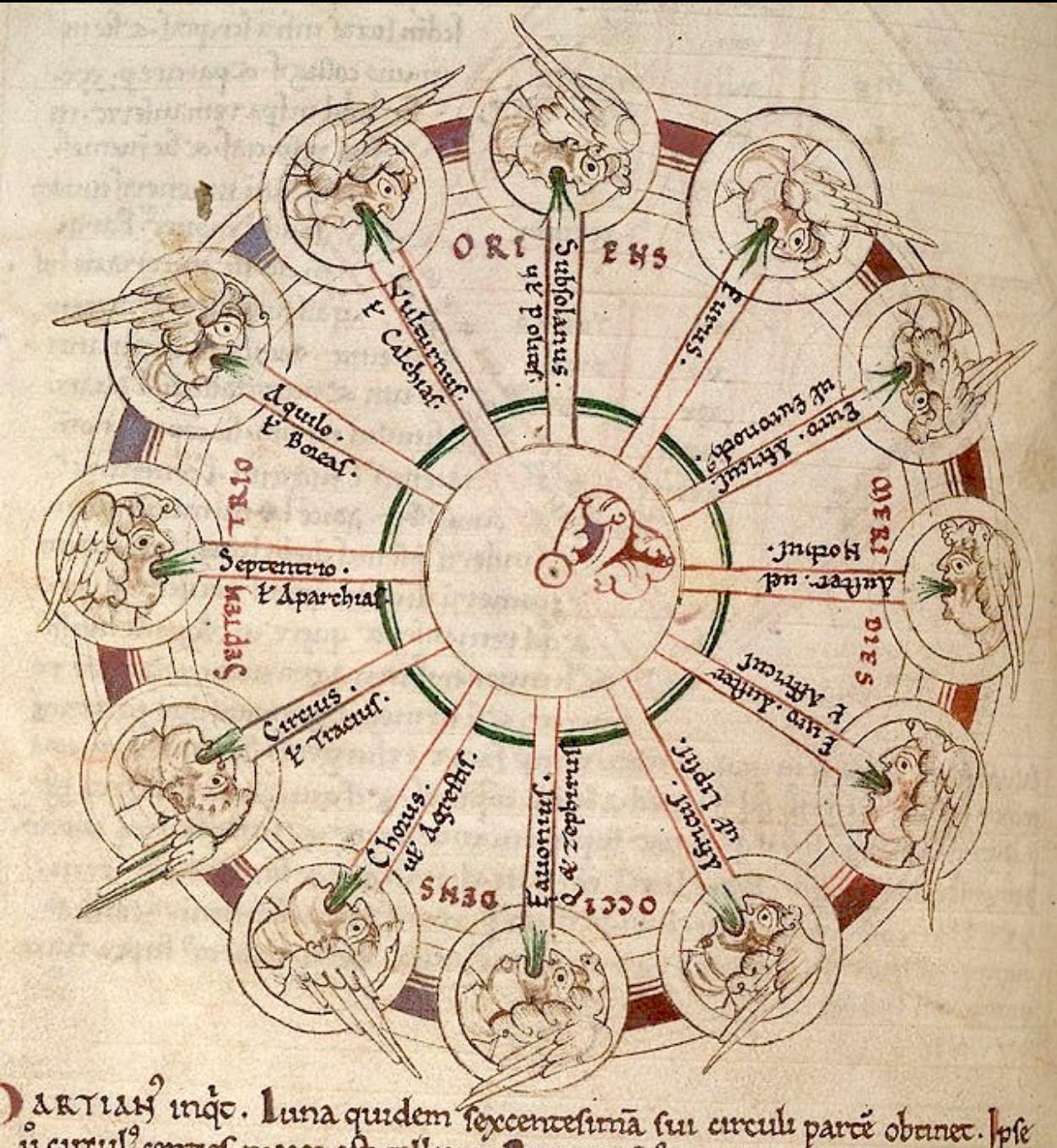
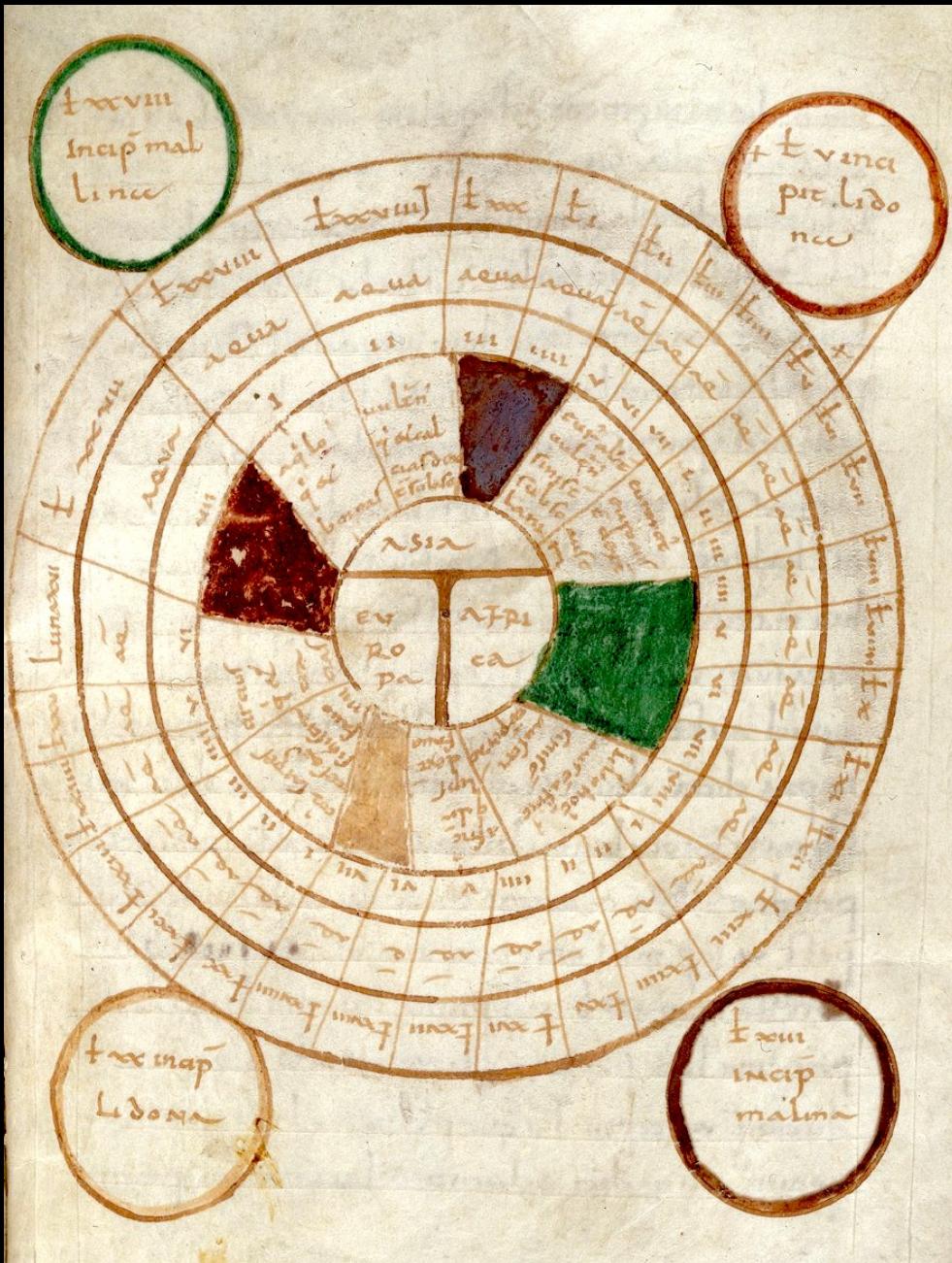


Diagram of the personifications of the 12 Aristotelian winds, 1130

Harley MS 3667, British Library



Tidal wheel with 30 day lunar cycle, corresponding tides, earth at center and four circles representing four moons, c. 861

Harley MS 3017, British Library



Isidore of Saville, *Etymologiae*, last qtr. 11th C, Royal MS. 6 C I, British Library

xxx. De lumine solis in quo currit.

Sol ouens pomeridiē iter habet. qui post quā ad occasū puerit,
& oceano se itinxerit. per incognitas subter ras vias uadit

& rursus adouente recurrit. **xxi. De lumine luna**

Lunam quidā philosophi dicunt proprium lumen habere.
globiq; eius unam partem esse lucifluam. aliam uero obscurā;

& paulatim ita se utendo diuisas formae efficer. Alii econtra
autē lunā nū suū lumen habere. sed solis radius inluminari. unde

& eclipsin patit. si int̄ ipsā & solē umbra terre interueniat. Sol enim illi loco supiori.
hinc euent ut quando sub illo ÷ parte supiore luceat. Inferiore uero habet adras. obscuras fit;

De luna formis.

Lunae prima figura bicornis est ita.

Tertia dimidia. habet ita.

Quinta iterum dimidia. ex ita semis & ungesima sed a

latum autem semis & ungesima sed a

Seconda fidelis ita.

Quarta plena ita.

maiore ita.

Sexta

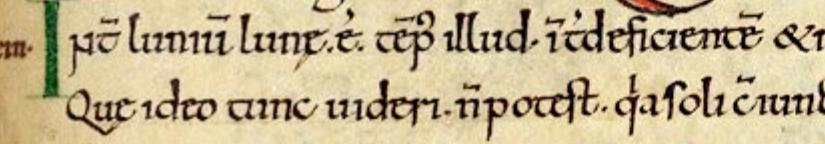
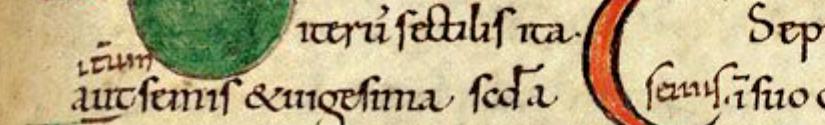
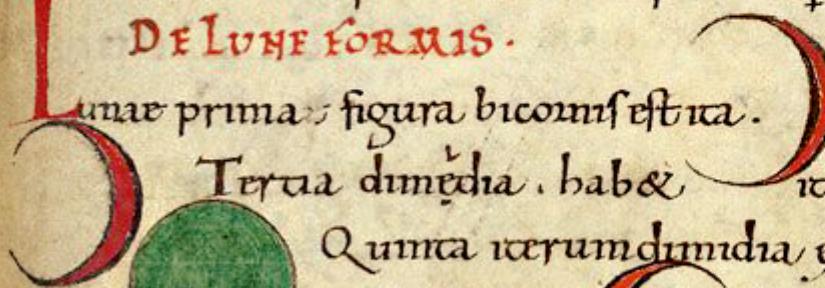
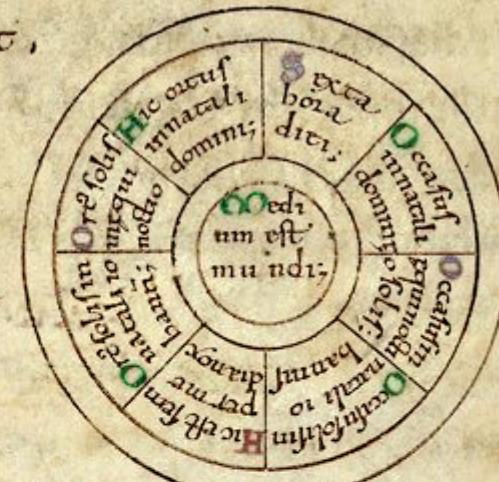
Septima bicornis. ita

semis. in suo orbe medie sit. Ceterae pro

portiones est;

D. i. t

Inēt lumen lune. ē. tēp illud. itē deficiente & nascente lunā; Est autē trigesima dies. q̄ luna nū lucet;
Que ideo tunc uideri nō potest. q̄a soli cūncta ob sciat. sed evdē mōnto renascens. paulatim



Microcosm & Macrocosm



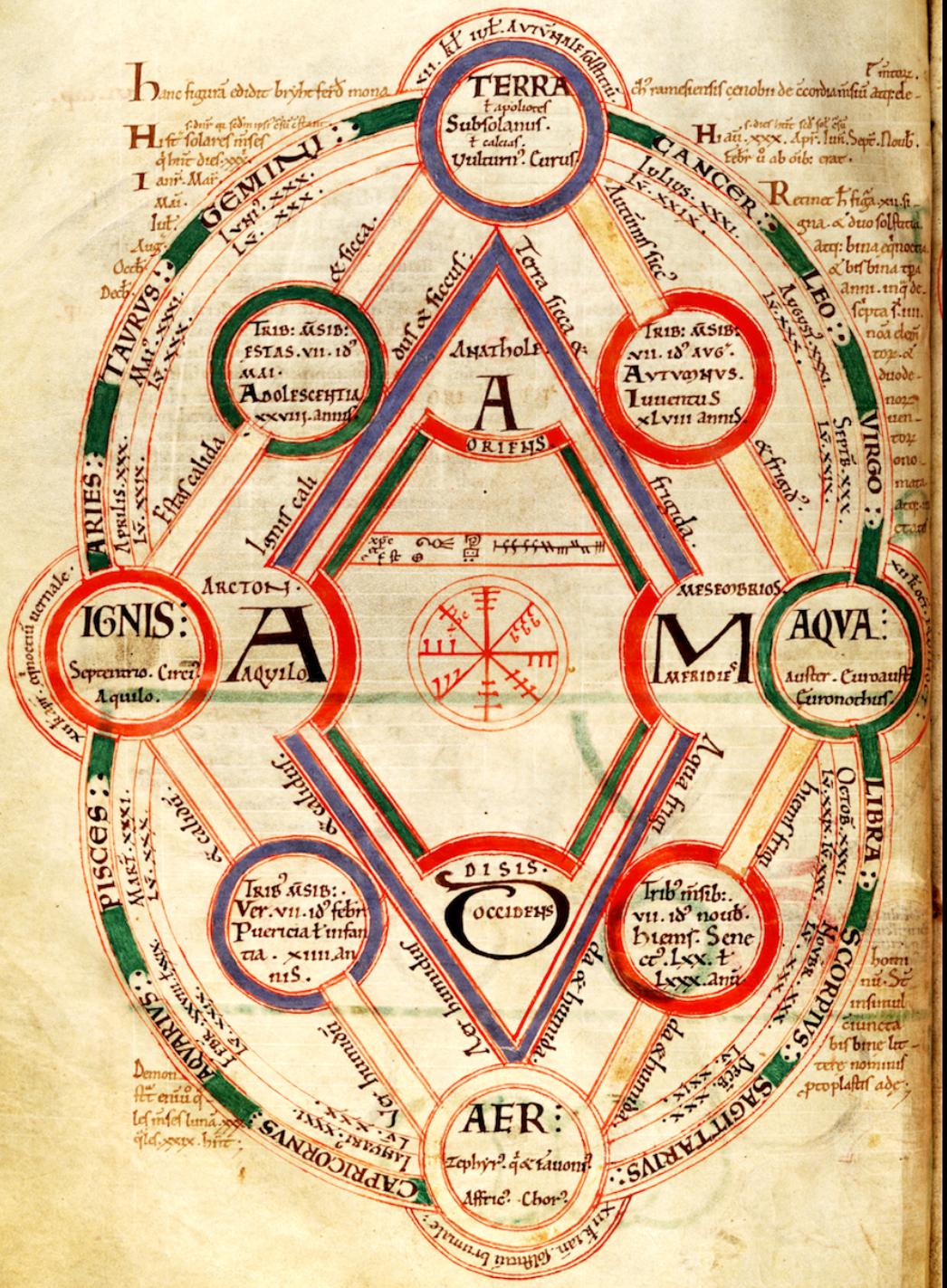
Universal Man, Hildegard of Bingen
(1098 –1179) , *Liber Divinorum
Operum*, c. 1220



Neptune & 4 Seasons,
2nd C Mosaic,
Bardo Museum, Tunisia



Four Winds, The Hinton St Mary Mosaic
Dorset, England, Roman Britain, 4th C, British Museum



Byrhtferth's Diagram, c. 1102–10

Thorney Computus
(Cambridgeshire, England,
Saint John's College,
Oxford, MS 17)

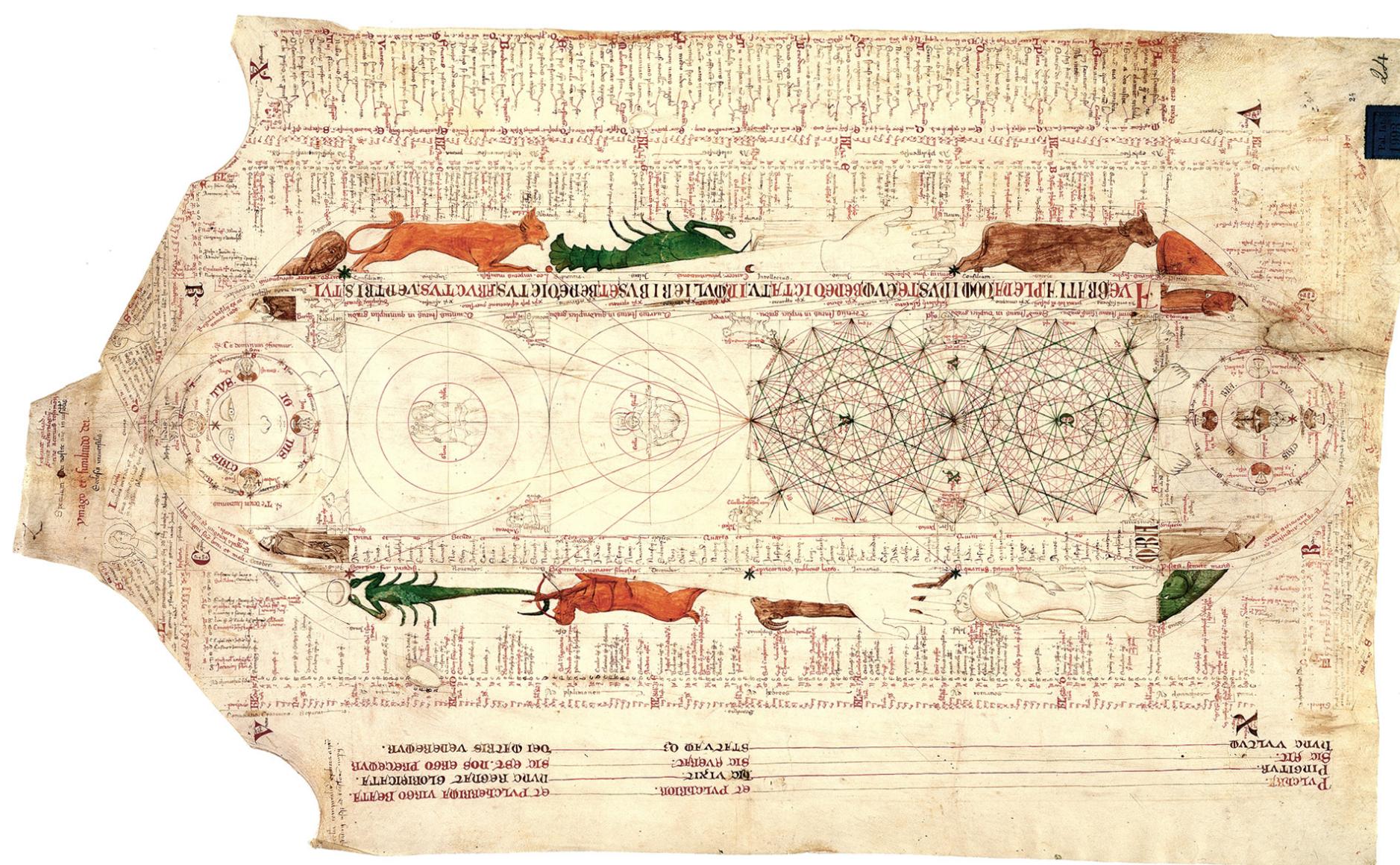
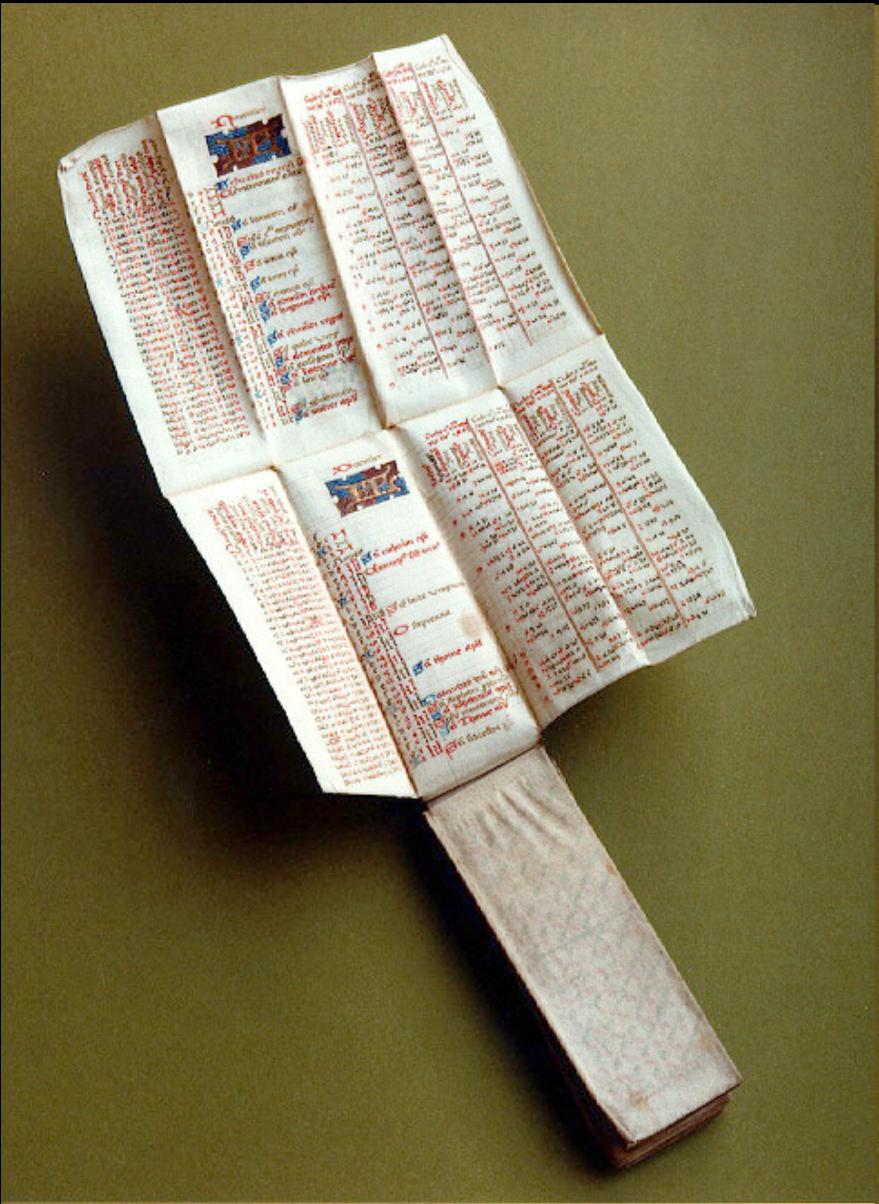


Diagram with Zodiac Symbols, Opicus de Canistris (1296 – c. 1354),
1335 – 50, Biblioteca Apostolica Vaticana, Vatican City, Pal. Lat. 1993.



15th C, Crawford Collection,
Royal Observatory, Edinburgh

Portable Visualization



Physicians Folding Almanac, 1463
MS. 40, Wellcome Library, London

ther erexit plura barba sternentes
longos pspinis oculis ut latro in
malum fronte invenientia capil
lis ingens.

Ad felis signis sunt inlatura -
64341400 Regule Algorismi -
Primo loco signe se secundo deces se
tertio loco teneat se quarto loco millesies
se quinto loco deces nullities se sexto
loco teneat millesies se septimo loco mille
nullities se et sic infinitum -

Binus color ur
ine ut purus.
Subrufus color
ut aurum re
missus.

Citimus color
urine ut pompa
rum ad remissus.
Subarmus color
urine ut pompa
rum remissus.

Pallidus color
urine ut sanguis
carnis levatus
ad remissus.
Subpallidus color ut
sanguis carnis
remissus.

Earopus color
urine ut nillus
carnis.
Pascens color ur
ine ut ferum latus.

Glaucus color ur
ine ut cornu lindani.
Hibis color urine
ut aqua fons.

Fecunditas urine signatur
ut dñe urinæ
infusa pñm
signat pñm
digestionis.

Fecunditas urine signatur
ut dñe urinæ
signat pñm
digestionis.

Fecunditas urine signatur
ut dñe urinæ
signat pñm
digestionis.

Fecunditas urine signatur
ut dñe urinæ
signat pñm
digestionis.

Fecunditas urine signatur
ut dñe urinæ
signat pñm
digestionis.



Fecunditas urine signatur
ut dñe urinæ
signat pñm
digestionis.

Fecunditas urine signatur
ut dñe urinæ
signat pñm
digestionis.

Fecunditas urine signatur
ut dñe urinæ
signat pñm
digestionis.

Subrufus color
urine ut crocus
orientalis.
Rubens color
urine ut crocus
orientalis.

Rubricidus
color urine ut fla
ma ignis remissa.
Rubridus color
urine ut flama
ignis remissa.

Tropos color ur
ine ut brunnus
color epato.
Ranos color urine
ut vnum ingratis.

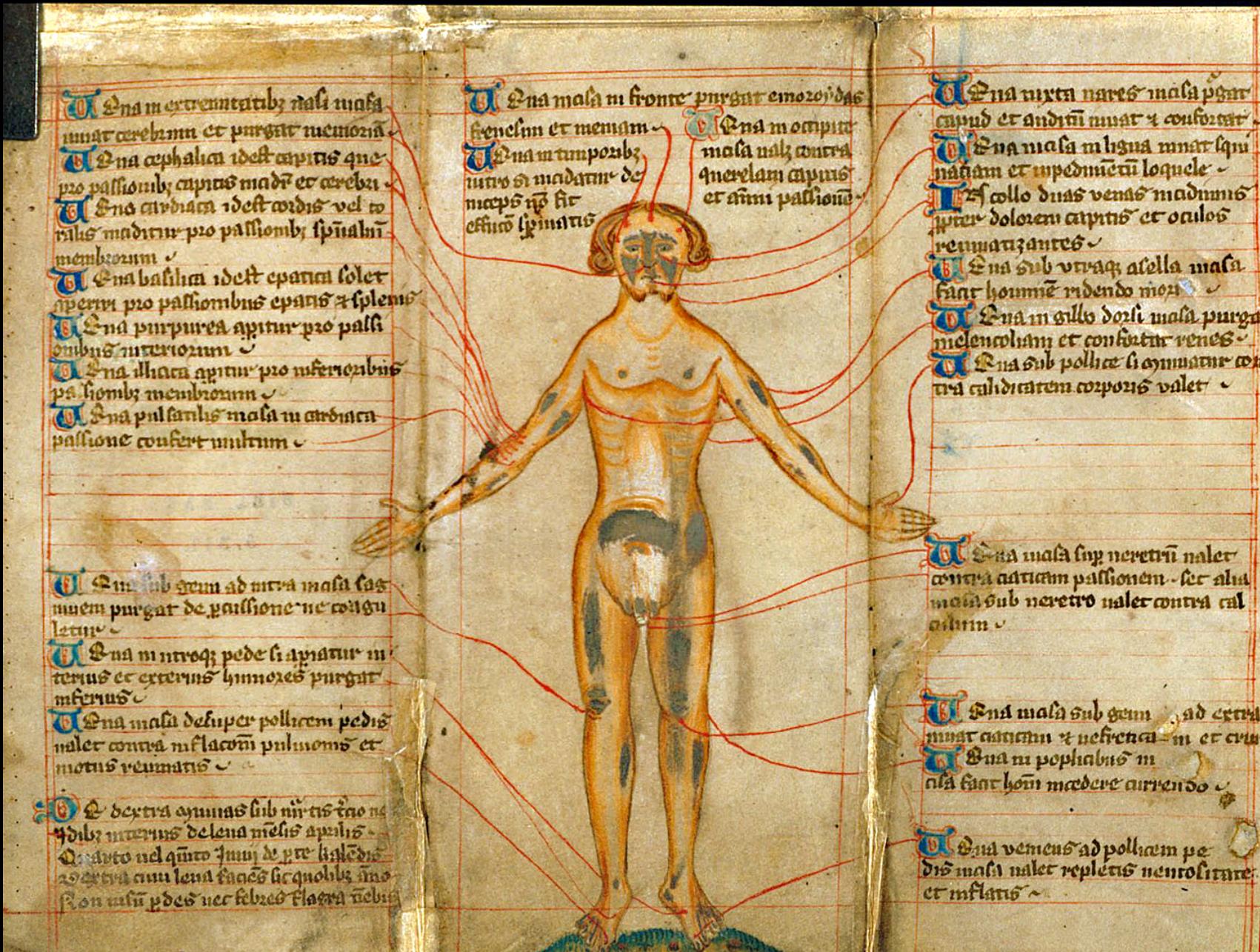
Tridis color urine
ut caulis.
Tridus color urine
ut plumbeum.

Diger color adustus
color ut incensum.
Diger color mor
tificationis ut cor
um ingratis.

Table of Eclipses,
Physician's folding calendar,
c. 1400 - 1450

Sloane MS 2250, British
Library





Blood Letting Man, Physician's folding almanac, 1406, Harley MS 5311, British Library



Thank you for listening!