

TITLE: *Etymologiarum sive Originum libri XX*

DATE: Seventh century A.D.

AUTHOR: St. Isidore of Seville, 600 - 636 A.D.

DESCRIPTION: This seminal work was initially compiled in manuscript form on vellum, with drawings in red and black. Measuring about 25.4 x 15.2 cm, the *Etymologiarum* consists of 20 Books on 175 leaves, including a *mappamundi*, and was meant to be an encyclopedia that summed up the knowledge accumulated by early seventh century Europe. So significant was its impact that during

the following centuries it served as a model of style and composition, as well as a primary source for many medieval writers. While the original manuscript has not survived, many copies of it have, reaching back to the eighth century. The title of *Etymologiae*, or simply *Origines* as it is also known, refers to the fact that the author always gives the etymology of everything that he describes or defines. Indeed, the Xth Book contains only the etymological definition of words alphabetically arranged. Of specific interest, however, are the XIIIth and XIVth Books that deal with geographical topics and where Isidore attempts a survey of the world in a brief, definitive and educational manner. The XIIIth Book discusses the earth as a whole - the oceans, the seas, both open and enclosed, the tides, rivers and winds - in other words, physical geography. In the XIVth Book Isidore enumerates and briefly describes the political divisions of the world.

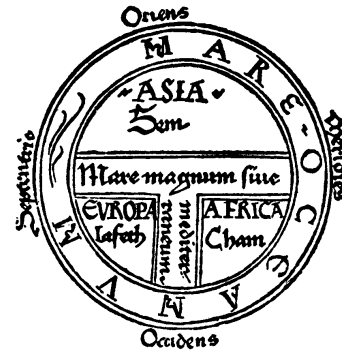
The author, a seventh century Bishop of Seville (Spain), leaned heavily himself on classical writers, as well as the teachings of the Church Fathers. For the XIIIth and XIVth Books specifically, Isidore's sources were primarily the Spanish presbyter Paulus Orosius and, secondarily, Solinus, who is quoted some 200 times, and Pomponius Mela. However, this is not to imply that *Origines* is the compilation of a bestiary, or that his objects are those of the fabulist in any shape. Rather, this work by Isidore is a "compilation of compilations" that resulted in a major reference work of the Middle Ages.

In view of the extraordinary influence of this treatise, the following excerpts (the translation is taken from G. Kimble) reflects some of Isidore's geographical concepts:

Concerning the earth we are told that it is named from its roundness (orbis) which is like a wheel; whence the small wheel is called "orbiculus". For the Ocean flows round it on all sides and encircles its boundaries.

As to size, Isidore accepts Eratosthenes' estimate (via Macrobius) of 252,000 *stadia* for the circumference of the earth. One *stadia* equaled 625 feet in Isidore's calculations, but by employing the more usual reckoning of 8 *stadia* to the mile and 87.5 miles to the degree, he obtained the grossly exaggerated figure of 31,500 miles for the circumference, vice 25,000 miles. With regards to the tripartite division of the world (Europe, Africa and Asia):

The Ancients did not divide these three parts of the world equally, for Asia stretches right from the south, through the east to the north, but Europe stretches from the north to the west and thence Africa from the west to the south. From this it is quite evident that the two parts, Europe and Africa, occupy half of the world and that Asia alone occupies the other half. The former were made into



two parts because the Great Sea (called the Mediterranean) enters from the Ocean between them and cuts them apart . . .

Interestingly, Isidore was the first writer to clearly define the Mediterranean by that proper name. Proceeding to a systematic description of the countries of the world, of Asia Isidore says that it is bounded in the east by *Lake Maeotis* [Sea of Azov] and the river *Tanais* [the river Don].

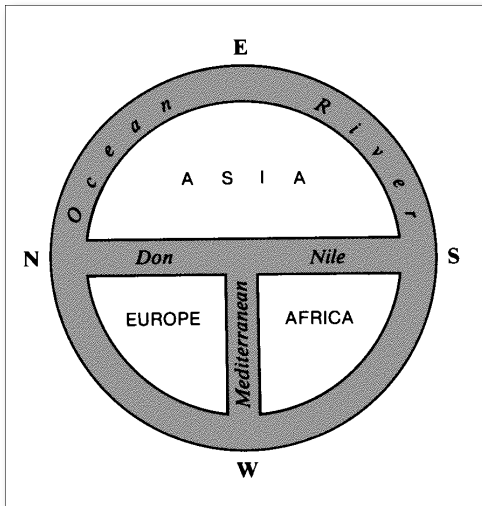
It contains many provinces and districts whose names and geographical situations I will briefly describe, beginning from Paradise . . . Paradise is a place lying in the eastern parts whose name is translated out of the Greek into Latin as *hortus* [i.e., garden]. It is called in the Hebrew tongue *Eden*, which is translated as *Delicate* [i.e., place of luxury or delight]. Uniting these two gives us *Garden of Delight*; for it is planted with every kind of wood and fruit-bearing tree, having also the tree of life. There is neither cold nor heat but a continual spring temperature. From the middle of the Garden a spring gushes forth to water the whole grove and, dividing up, it provides the source of four rivers [see #205C and Q]. Approach to this place was barred to man after his sin, for now it is hedged about on all sides by a sword-like flame [*romphaea flamma*], that is to say that it is surrounded by a wall of fire that reaches almost to the sky.

This obvious Biblical note coming so early in the topographical section of the treatise might lead the reader to expect its continuance in subsequent chapters; but apart from one or two entirely understandable references to Biblical lore - *Scythia and Gothia also are said to have been named by Magog, son of Japhet and the River Ganges which sacred scripture calls Phison, flows down from Paradise to the realms of India* - only the most sparing use of this source is made. By far the greatest percentage of Isidore's material is culled from "pagan" (i.e., non-Christian) sources; indeed much of his geography might have been written by late classical writers such as Mela and Solinus. His treatment of the habitable earth enables one to arrive fairly easily at the scope of his knowledge.

In the extreme east of Asia the country of Seres is rich in fine leaves, from which are cut fleeces which the natives who decline the merchandise of other peoples sell for use as garments . . . beyond there is only the *Scythian Ocean* flowing from the Caspian Sea to the Eastern Sea. To the northward lies *Scythia* stretching from the *Seric* [i.e., Eastern] Ocean in the east to the Caspian Sea in the west. Several of the districts are rich in gold and precious stones but are rarely approached by man owing to the ferocity of the *Griffens* . . . The *Griffens* [or 'Gryphes'] are so called because they are winged quadrupeds. This kind of wild beast is found in the Hyperborean Mts. In every part of their body they are lions, and in wings and head are like eagles, and they are fierce enemies of horses. Moreover they tear men to pieces. . . The land of *Hyrkania*, bordering *Scythia* to the west, has many tribes wandering far afield on account of the unfruitfulness of their lands.

Europe, in the true classical fashion, is divided from Asia by the river *Tanais* [today's Don] and is bordered on the north by the *Northern Ocean*. Hard by it, and forming the *ne plus ultra* of the known world, is the land of *Barbaria*, so called on account of the wild tribes inhabiting it. Enumerated among these tribes are the *Alani*, the *Dacians*, the *Goths* and the *Suevi*. *Thule is the furthest island in the Ocean in the Northern and Western waters beyond Britain*, according to Isidore, . . . *having its name from the sun, because there the sun makes its summer halt, and there is no day beyond it; whence the sea is there sluggish and frozen.*

The western limit of the world is furnished by the *Fortunate Isles*, so named because they are blessed with abundance of produce; their woods yield apples naturally, their ranges of hills are clad with unplanted vines and everywhere there are crops and vegetables in place of pasture. Hence the false opinions of pagans, and the poems of secular poets, claiming that these islands were Paradise. They are situated in the Ocean off the coast of Mauretania.



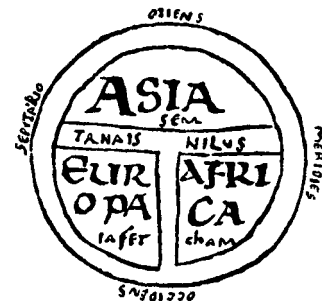
Concerning Africa, Isidore says little that enables one to put bounds on it; “it begins at the boundaries of Egypt, continuing to the south through Ethiopia to Mount Atlas.” As to Ethiopia in particular, he avers that “the whole of it is under the southern pole [i.e., hemisphere]. Towards the west it is mountainous; in the middle it is sandy; to the east a desert ... In the south it is bounded by the ocean, and in the north by the river Nile. It contains very many tribes of different aspects, with strange forbidding countenances.”

The southeastern horizons of the world are circumscribed by the coasts of India “containing many tribes and towns”, the island of Taprobane [Sri Lanka], Chryse [Malay Peninsula?], Argyra [Cattigara?], and “Tyle, which is never without leaves on its trees”. Isidore states that Taprobane stretches 875 miles in length and 625 miles in width. It is separated from India by a river that flows between them. “It is rich in pearls and precious stones; part of it is, however, infested with wild animals, but part is occupied by men. In this island they say that there are two summers and two winters in one year and that flowers bloom twice.”

Again, for a professed theologian, Isidore shows a noteworthy breadth of general ideas, even admitting the possible existence of *Antipodean* lands (roughly translated):

Moreover beyond [these] three parts of the world, on the other side of the ocean, is a fourth inland part in the south, which is unknown to us because of the heat of the sun, within the bounds of which the *Antipodes* are fabulously said to dwell.

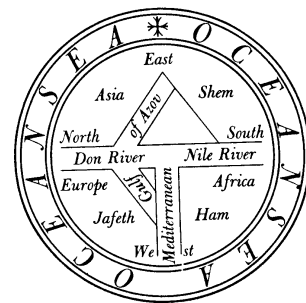
This concession by Isidore as expressed in the brief quote above indicated that he more than half believed in the sphericity of the earth and quite fully in the doctrine of the *Antipodes*. While Isidore was not consistent in the affirmation of his adherence to the theory, this particular passage was repeated so often by his successors that it became the formula through which those of the Middle Ages who accepted the existence of the *Antipodes* or *Antichthon* expressed their belief. As can be seen in the many examples of Isidorean maps included herein, there is only one attempt to depict this “fourth continent” graphically (#20KK). However, the chief influence cartographically at least, in keeping the theory alive during this period was the *Beatus* group of maps (#207). In this later map ‘family’ or group, there appears a statement on the strip of land located south of the Indian Ocean which is recognized as a quotation, with some curious errors, of the essential passage from the *Etymologiae* just translated above.



As far as his own graphic expression of the world’s geography, one of the map designs frequently associated with Isidore of Seville is actually a survival of the ancient

Greek tripartite division of the world into Asia, Africa and Europe, surrounded by the Ocean Sea. As can be seen, this simple design by no means reflects the breadth of knowledge and ideas that can be found in the text. Probably conceived as early as the fifth century B.C. by Ionic philosophers, this popular scheme of dividing the world into the three known major land masses is effected by using a T-shaped partition, a “T” within an “O”. Variouslly labeled *Imago Mundi Rotunda*, *Noachid maps*, *T-in-O* [*Orbis Terrarum*] and/or *wheel-maps*, this simplistic, diagrammatic plan formed the basis for one of the major design features of most subsequent “learned” medieval cartography and survived as a cartographic form long after more direct information made it difficult to accommodate such an artificial scheme.

The T within the O produced a world image divided into half (by the cross of the T) and two quarters. The half segment (east) at the top of the map represents Asia, the lower left Europe, and the lower right Africa. These segments also represented, according to Isidore, the divisions of the earth apportioned to the three sons of Noah: Shem, Japhet and Ham, respectively (hence the term *Noachic maps*). The T separating the boundaries between the three continents also represented three of the principal waterways of the world. The upright stem of the letter T running east and west, to the center of the world was the Mediterranean Sea. The northern (left) half of the cross bar represented the river *Tanais* [Don], and the southern (right) half of the cross bar represented the river Nile.



Y-O map from Bede's *De natura rerum* (#205WW)

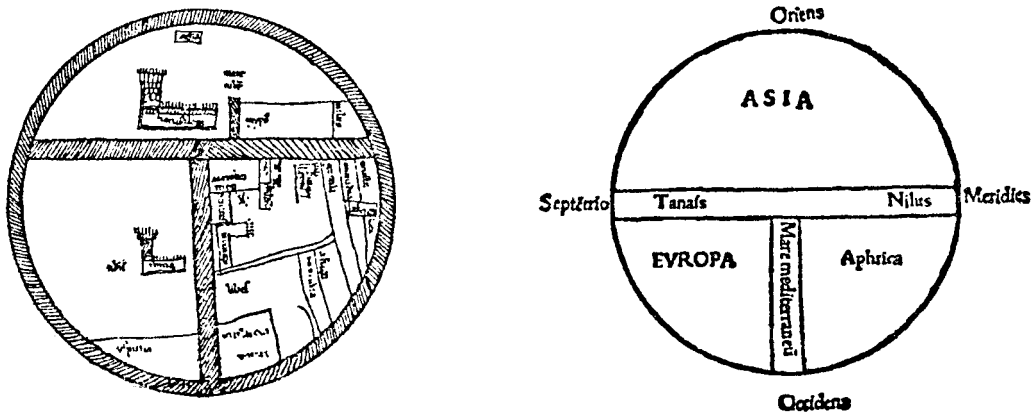
Place-names for the three continents varied considerably in the various editions and derivatives of Isidore; some maps bore the Biblical names only; others had explanatory inscriptions stating, for instance, that Asia was named after a *Queen Asia*, “of the posterity of Shem, and is inhabited by 27 peoples; that Africa is derived from *Afer*, a descendent of Abraham, and has 30 races in 360 towns”; and that Europe, named from the *Europa* of mythology, “is inhabited by the 15 tribes of the sons of Japhet and has 120 cities” (#205B). Other maps give definite localities for the Twelve Tribes of Israel and the abiding places of the Twelve Apostles.

Regardless of experience and all knowledge to the contrary, the most important city regionally was located in the center of the habitable world. In ancient Greece, Ionic philosophers placed Greece in the center of their world map and Delphi in the middle of Greece. The Hindus had their *Meru*, the Persians their *Kangdiz*, the Arabs their *Aryne* [*Aren*, *Arim*, or *Arin*]. It was therefore inevitable that a Christian map maker like Isidore

should place Jerusalem in the geographic center of the world: "This is Jerusalem: I have set it in the midst of the nations and countries that are round about her" (Ezekiel V:5). The Holy City, named or illustrated, and located at the intersection of the stem and cross bar of the T, appeared most regularly especially in the center of the world maps called *Sallust* maps (T-O designs from about 1110 A.D., #205F, H, and O). There it remained in the center of European world maps until about 1450 when many map makers were forced to shift the center to the east. The discoveries of Marco Polo and other explorers made it necessary to enlarge Asia, to move Jerusalem or to ignore the discoveries.

In addition to the usual tripartite circular map of the world, some manuscripts of the *Etymologiarum* feature other map designs as well. One rather similar diagrammatic design also associated with Isidore uses a square instead of a circle and a "V" instead of a "T" for partitioning the continents (#205L, #205T and #205WW). Another map, attributed to Isidore, represents a combination of the T-O scheme and the climate-zone plan employed by writers like Macrobius (#205M). Being one of the earliest surviving Isidorean maps it also hints at the existence of the mysterious fourth continent with the legend *Temperata incognita*. Still others represent only a slight detour from the strict T-O pattern, adding the four sacred rivers, and/or more names, etc. (#205C, Q, S and W). Two of these, #205W and 205AA, are sometimes labeled as Y-O designs.

Sallust Maps. The most closely related or influenced maps of the T-O's are those that accompany manuscripts of Sallust's works and may have originally been drawn to illustrate a passage from Sallust's *De bello Jugurthino* which, like Isidore's treatise, also attempted to briefly describe the countries of the world. While the T-O format is carefully followed, the *Sallust* maps add the legends and pictures or vignettes that increased their aesthetic appeal. The religious theme is predominant, Jerusalem being emphasized with the inclusion of an immense church or castle (#205F, H, and O).



T-O maps from 12th century *Sallust* MS from Zacharias' *Orbis breviarium* (#205F)

Caius Crispus Sallustius, generally known as Sallust (86-34 BCE) was a Roman senator and historian, who subsequent to his falling out with the Caesar, was sent to Africa as a governor of Numidia (In the north-west of Africa). He spent some time in Africa and returned home a rich man. During his mission there he was involved in various rebellions and conflicts with neighboring powers and has left accounts of his activities.

He produced his most important works on the conspiracy of Catiline and the war of Rome with Jugurtha. Both accounts appear bound in one manuscript that was copied and used as a textbook of history for almost a millennium. In his *Jugurthine War* Sallust writes about Africa, describing its geographic location and climatic conditions, as well as its demography where he narrates how the Armenian mercenaries settled in North Africa and intermingling with the Libyan tribes, gave rise to the peoples that inhabit the region today. An excerpt of the text is given below.

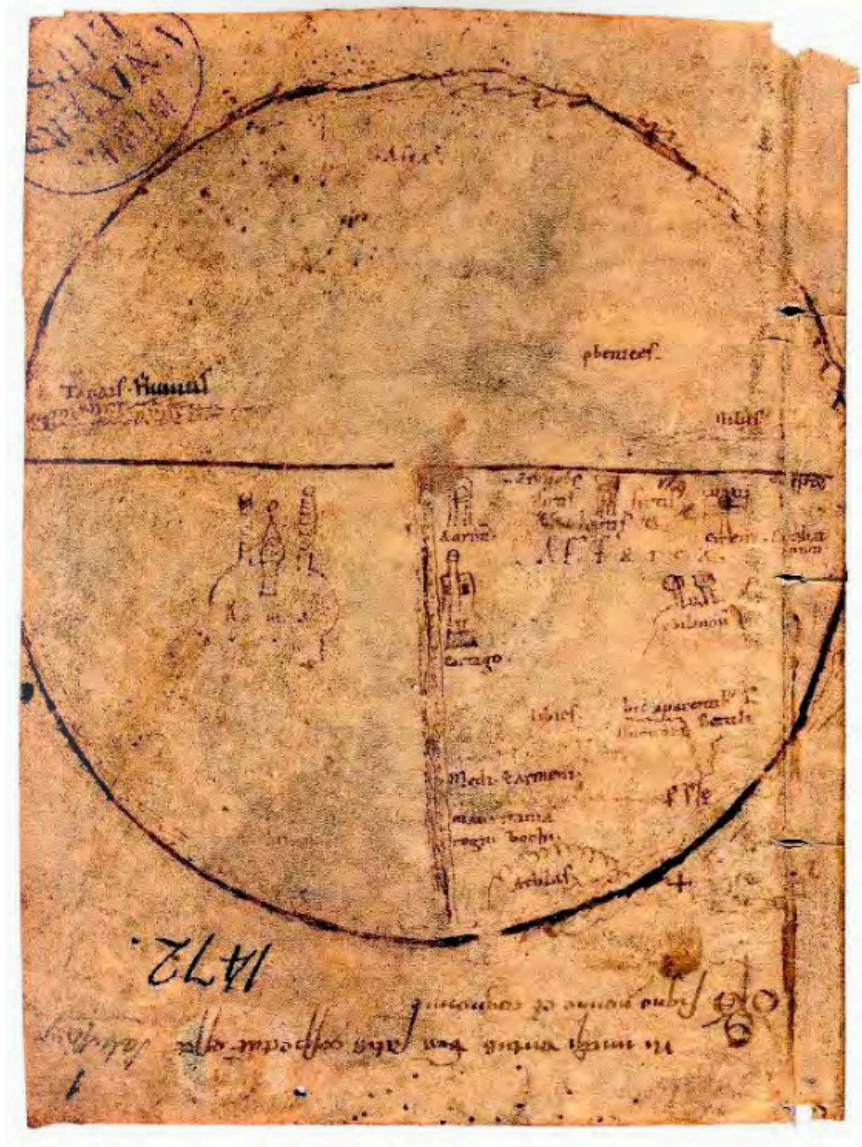
In the division of the earth, most writers consider Africa as a third part; a few admit only two divisions* Asia and Europe, and include Africa in Europe* it is bounded, on the west* by the strait connecting our [Mediterranean] sea with the [Atlantic] ocean; on the east by a vast sloping tract which the natives call the Catabathmos. The sea is boisterous, and deficient in harbors; the soil is fertile in corn, and good for pasturage, but unproductive of trees. There is a scarcity of water both from rain and from land-springs. The natives are healthy swift of foot and able to endure fatigue. Most of them die by the gradual decay of age, except such as perish by the sword or beasts of prey, for disease finds but few victims. Animals of a venomous nature they have in great numbers, Africa, then, was originally occupied by the Getulians and Libyans, rude and uncivilized tribes, who subsisted on the flesh of wild animals, or like cattle, on the herbage of the soil. They were controlled neither by customs, laws, nor the authority of any ruler, they wandered about, without fixed habitations and slept in the abodes to which night drove them. But after Hercules, as the Africans think, perished in Spain, his army, which was composed of various nations, having lost its leader, and many candidates severally claiming the command of it, was speedily dispersed. Of its constituent troops the Medes, Persians and Armenians having sailed over into Africa, occupied the parts nearest to our sea.

The Medes and Armenians connected them selves with the Libyans who dwelled near the African sea, while the Getulians lay more to the sun, not far from the torrid heats; and these soon built themselves towns, as, being separated from Spain only by a strait, they proceeded to open an intercourse with its inhabitants. The name of Medes the Libyans gradually corrupted changing it in their barbarous tongue, into Moors.

Some copies of Sallust's manuscripts, which have reached us, do also include a simple T-O map, which relates to his narrative of the *Jugurthine War*. Many copies of this map mention the name of Armenians in North Africa, along with the names of the Medes and the Persians These were probably the forbearers of the first T-O maps, as we know them today.

As mentioned above, Sallust's works were copied and re-copied and were in use until the late medieval period and many of the later copies of his manuscripts have reached us. Some of these include basic T-O maps, which show the continents, including the names of some countries and peoples. Since they are about the history of northern Africa, this particular area is shown in more detail. These maps are taken from various manuscript copies of Sallust's works some of them dating from as late as the 13th and the 14th centuries, when they were still in use as textbooks by historians and scholars.





*Sallust mappamundi, ninth century,
University of Leipzig Library, Leipzig, Germany, MS 1607, f. 1 r, 40x53 mm*

This basic T-O map is one of the oldest surviving Sallust maps. The copy dates from the ninth or tenth century and is drawn on vellum and taken from a Sallust manuscript now in the University of Leipzig in Germany. Unusual for T-O maps, it includes the vignettes of some cities and provinces. In line with all T-O maps, this one is also oriented with East at the top.

The territory of Asia includes only four legends, *Tanais*, *Asia*, *Phenices* and *Nilus*. In the area of Europe there are no legends, only the city of *Roma* is represented with a vignette of a castle and its name, attesting to the importance of the power of Rome in the Empire.

Since Sallust was the governor of Numidia, he has naturally paid more attention to the details of this continent. *Affrica* contains 24 legends, which include cities of *Harran*, *Cartage* [Cartage] plus four other cities. Various provinces are shown including rivers and names of certain tribes. The fourth line from the center bottom, near mount *Athlas* reads *Medi - Armeni*, a reference to the Armenians and Medes having settled in the area.

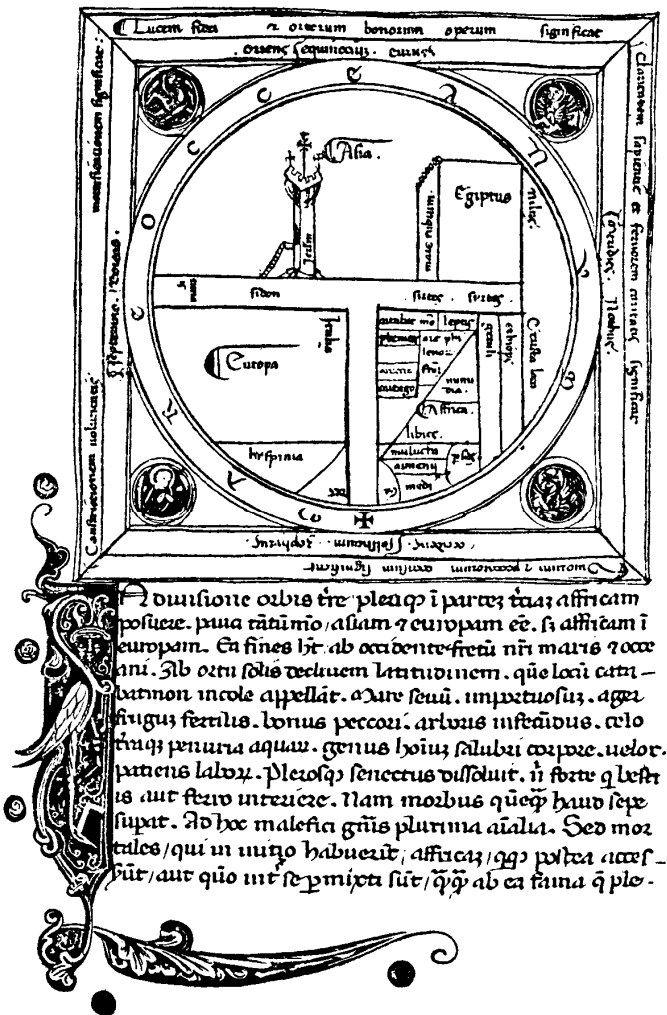
The map below is from a 14th century copy of a Sallust manuscript. It shows the accepted tripartite division of the circular world. In Europe only the name of the continent and two countries of *Italia* and *Hyspania* are shown. In Asia beside the name of the continent, river *Nilus*, *Egypt* and *Mare Rubrum* [Red Sea] are mentioned, while the tall rising tower bears the legend *Jrslm* [Jerusalem].

In the bodies of water dividing the world into the three continents, the Mediterranean bears no legend. The left arm of the T is inscribed *Tanais*, but the right arm, which should have borne the name *Nilus*, is only connected to the Nile at the right extremity, where the *Nilus* is shown as a vertical line. Near the Nile the land is described as *Exusta* [parched], a reference to the southern parched areas. The central part of the T bears the legends of *Sidon* and *Sirtes* (twice). The water surrounding the whole of the circular landmass is inscribed *Mare Oceanum*.

In Africa the picture is completely different. There are 15 toponyms and the countries of *Phoenicea*, *Carthago*, *Ethiopia*, *Numidia* and mountains of *Catabatmon* are shown. At the centre bottom (Western Africa) the names of the three tribes of *Armani* [[Armenians], *Medi* [Medes] and *Perside* [Persians] are singled out. These are the people, that according to Sallust settled in North Africa, giving rise to the North African tribes of today.

At the bottom of the map where the Mediterranean connects to the surrounding ocean, at both sides of the inlet, the corners of the mainland are separated by borderlines and the inverted legend straddling these corners reads *Gades*, referring to the Spanish port city of Cadiz,

From Sallustius, the *Bellum Jugurthinum*
14th century. Bibliotheca Marciana, Venice. Ms.
Lt. Z, 432 (1656), f. 40r. (#205H)



Byzantine-Oxford, or B-O T-O Maps.

Another variation of the basic Isidorean design was called the *Byzantine-Oxford, or B-O T-O* maps. These designs differed from the traditional divisions by showing political boundaries. As portrayed in #205BB, the domain of Europe is extended across the Mediterranean to the southern and eastern coasts where the Crusaders made inroads. Correspondingly, *Kartago Magna* [greater Carthage], an extension of Muslim North Africa, controls southern Spain.

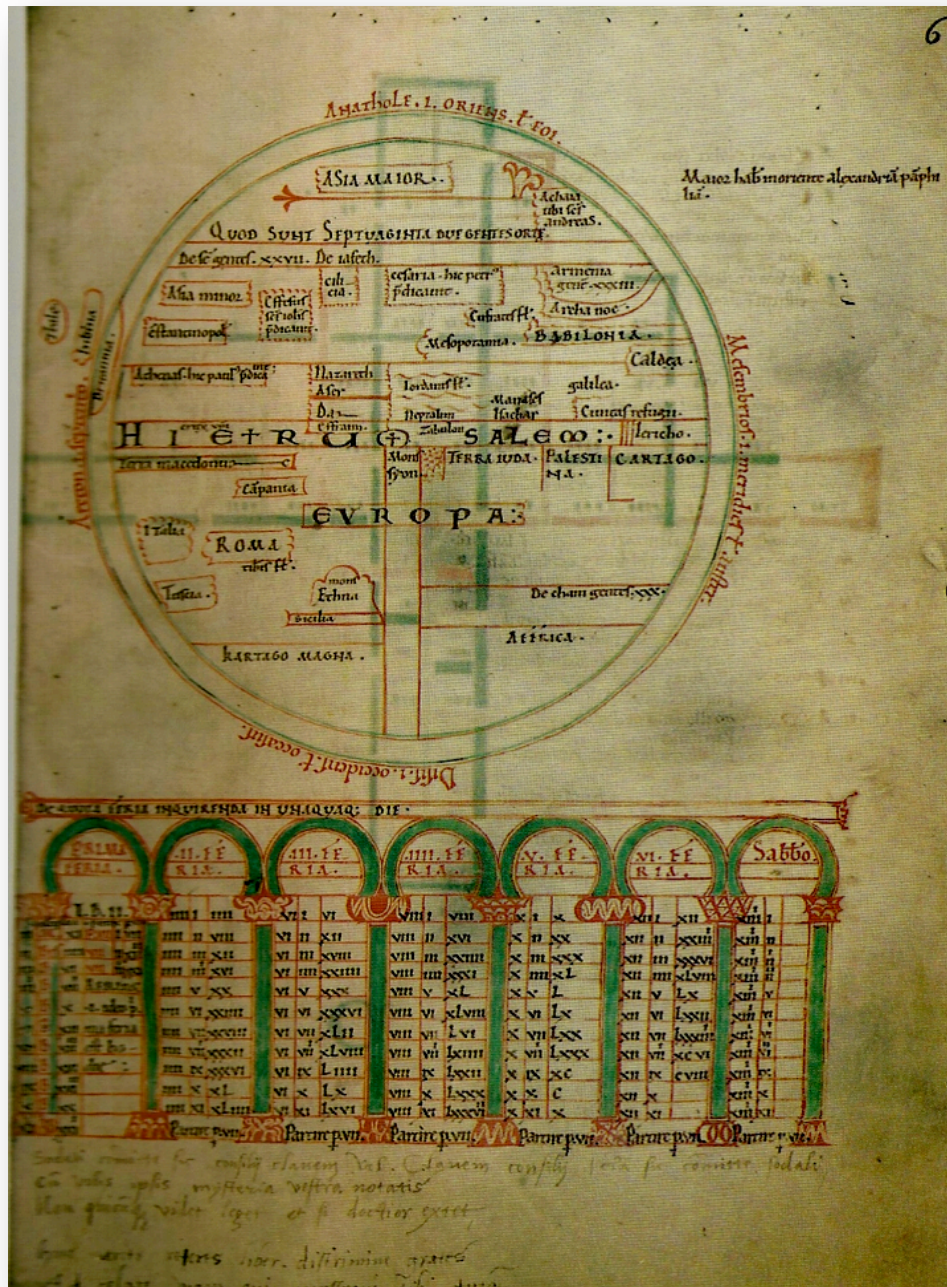
More prominently than in any other example of the biblical school, the Holy Land dominates the center of the map. This area is divided first into the lands of Judea, Galilee, and Palestine, and further by the names of seven of the Twelve Tribes. The River Jordan flows southward, starting southwest of Nazareth and passing east of Jerusalem. The dividing line between Asia and Europe-Africa is replaced by Jerusalem. The Holy City is flanked on the south by Jericho, and the site of the Crucifixion is identified just north of center. Mt. Zion is in the exact center.

Inscriptions confirm the idea that the map was composed in the Byzantine world. The directions of the compass are given in Greek as well as Latin. Several notes identify the regions in which various Disciples preached. Paul is located at *Athens*, John in *Ephesus*, Peter in *Caesarea*, and Andrew in *Achaia*. In Ephesus, the Byzantine emperor Justinian (482-565) built a temple to St. John the Divine, one of the seven wonders of the ancient world. At *Caesarea Philippi*, Peter received his commission and the “keys” of the Church. *Achaia* is the Roman and Byzantine name for the Greek province where Andrew is said to have preached.

The map was brought back to England or Ireland after the First Crusade, which conquered Jerusalem in 1099. The copyist or a later hand has added *Britannia*, *Hibernia*, and the northern island *Thule* in the margin, but the remainder is apparently a faithful Latin version, dating from 1110, of the Greek original. Above all, the map applies the Crusaders’ guiding doctrinal notion of Jerusalem as the most important place on earth.

Christian scholars adopted the T-O map for its simplicity, as had the classical writers who first employed it. The Byzantine-Oxford T-O map treats this expedient diagram as an emblem of conquest. Jerusalem was the focus of that Conquest for more than two centuries of Crusaders, and it would remain the center of attention on maps until the invention of printing and the publication of Ptolemy in the 1470s.

These T-O maps, whether actually contained in the *Etymologiarum* of Isidore, in later editions of the same, as modified derivatives thereof (*Sallusts*, *B-O T-O*), or as maps that were merely influenced by the basic design format (*Hereford*, *Ebstorf*, et. al.), were all very popular and numerous during the Middle Ages in Europe. This can be evidenced by the relatively large survival rate. At least eighty manuscripts, reaching from the 8th beginning with the *Albi* map (#206), to the 15th century with the first printed map being a T-O map, contain designs developed on the T-O pattern with surprisingly similar characteristics. In fact, so influential and popular was Isidore’s treatise that it continued to be read right into the Renaissance period. Isidore is quoted time and time again by such 15th century writers as Pierre d’Ailly and even Christopher Columbus (*Book III*, #238). In 1472 the *Origines* was printed in an edition published by Gunther Zainer who displayed Isidore’s tripartite world-picture traditionally just as it had been handed down in the manuscripts; this being so even though more accurate geographical knowledge was obviously available at this time. Measuring just 2.5 inches in diameter, this little woodcut diagram map has the added distinction of being *the first known map printed in Europe*.



Byzantine-Oxford T-O map, 1110, 17 cm diameter #205BB

In the Abbey of Thorney, England, 'Computus'. One of the most interesting features of this map is its highly abstract form: it is mostly comprised of straight lines with only a few concessions to irregular geographical forms. See, for example, mons Ethna and the islands of Thule, Hibernia and Britannia. Its heavily biblical content is also unusual: note Hierusalem on the central axis with the cross and Mt. Syon in the center. Place names are almost entirely omitted from Africa and Asia Major, and a note in the upper right adds "[Asia] Major has in the east Alexandria and Pamphilia". (Courtesy of St John's College, Oxford; MS 17, f.6.)

At the Benedictine monastery of Thorney in East Anglia, a large and elegant *computus* book was finished in 1110, designed to be an ornament of the newly completed church. The core text are the three works of Bede: *De natura rerum*, *De temporibus* and *De temporum ratione*; Helperic's *De computo* from about the year 900, and tracts by Dionysius Exiguus with the Paschal tables. The whole is illustrated by instructive diagrams, including five world maps: two T-O centers of *rotae*, two zonal maps, and one larger, more detailed map. The detailed world map has no introductory or accompanying text and no title. The page is composed with the map above and a week-day table arranged under the arches below. It looks like nothing so much as a cathedral rose window with a row of lancets beneath. In this manuscript the artistry of layout seems almost to have subsumed meaning. Around the circle of the map the cardinal directions are ostentatiously given in Greek and glossed in Latin: for example, *Anathole vel oriens vel eoi*, in the east. A note to one side says, *Maior habet in oriente alexandriam pamphiliam*, a reference to Asia Major at the top of the map. The whole is laid out with impressive regularity. It looks like a T-O map, but the continents are not in their usual places and the center bar, usually occupied by the Nile/Black Sea axis, is labeled *Hierusalem* in large letters with a cross in the center and an explanatory note *crux xpi* or cross of Christ. Below the cross is *Mons Syon*. The vertical bar of the "T", usually the Mediterranean, is also unlabeled. In fact, the only bodies of water to be named on this map are the rivers Jordan, Euphrates and Tiber.

The continents are arranged with Asia at the top, Europe apparently in the center and Africa in the southwest corner. Most puzzling is that the label for Europe crosses what would normally be the Mediterranean. Another oddity is that *Achaia*, where St Andrew [preached] is in Southeast Asia, far from Athens, the preaching site of Paul. Of the sons of Noah, Shem is found in Asia and Ham in Africa, as usual, but Japheth stands next to Shem in Asia, instead of Europe. This placement could reflect the scribe's loyalty to the Biblical text, *May God make space for Japhet, and let him live in the tents of Shem* (Genesis 9.7)

The numbers of people in the world are announced as seventy-two (*Quod sunt septuaginta due gentes orte*) but the total adds up to ninety: Shem, twenty-seven; Ham, thirty; and Armenia, thirty-three. The peoples descending from Japheth are not named. These are the usual numbers for the descendants of Shem and Ham, but the source of the numbers for Armenia and why this country is singled out are not clear.

The map is dedicated almost entirely to places of significance in the Bible. The division of the earth among the sons of Noah, Noah's ark, seven of the twelve tribal territories of the land of Israel, Jericho and the city of refuge (Joshua 20) for those guilty of involuntary manslaughter under Hebrew law, all come from Jewish history. Paradise is not shown. The life of Christ is illustrated by the river Jordan, Galilee, Nazareth and Jerusalem. Athens, Ephesus, Achaia, and Caesarea are mentioned specifically as sites where the apostles preached. The only places without a biblical link of some kind are in Italy (Sicily, Mount Etna, Tuscany, Campania), Constantinople and Britain, Ireland and Thule. These islands, the only ones represented, break the frame of the map, perhaps as a burst of patriotism on the part of the scribes. They are in the north, but so far east as to be immediately above Constantinople. *Kartago Magna*, which could be Cartagena in Spain as *Cartago* appears elsewhere on the map, is another non-biblical site.

Description of the Byzantine-Oxford T-O mappamundi. (The following is from Faith Wallis, "2. Computus Related Materials: 16. Mappamundi," *The Calendar & the Cloister: Oxford, St. John's College MS 17* (McGill University Library. Digital Collections Program, 2007).

Like the map within the *rota* of sunrises and sunsets, this is a T-O map with Asia in the top half, and Europe and Africa in the lower half. These divisions are treated rather casually, however, for the label *EVROPA* straddles the boundary between Europe and Africa; locations in the Holy Land are indifferently assigned to Asia and Africa, and *Athens* and *Achaia* are placed in Asia. There is no attempt at cartographic realism: this is a diagram containing a list of places.

A. Asia is divided by horizontal lines into three zones: 1. *ASIA MAIOR*: glossed *QVOD SVNT SEPTVAGINTA DVE GENTES ORTE*, and beneath this *De Sem gentes XXVI. De iafeth <gentes XV* (see *AFFRICA* below for Ham). At the right hand edge *Achaia ubi santus andreas <predicauit>*.

2. *Asia minor*: containing roughly from left to right *constantinopolis, Effesus <ubi> sanctus iohannes predicauit, cilicia, cesaria hic petrus predicauit, Armenia gentes XXXIII, Archa noe, Eufrates flumen, Mesopotamia, BABILONIA, Caldea*. Outside the map in the left margin is a note: *<Asia> Maior habet in oriente alexandriam pamphiliam*.

3. A zone largely comprising sites in the Holy Land: *Athenas. hic paulus predicauit, Nazareth, Aser, Dan, Effraim, Iordanis flumen, Neptalim, Zebulon, Manases, Isachar, galilea, Ciuitas refugii, Iericho*.

B. Running horizontally across the middle of the map, and dividing Asia from Africa and Europe, is a band labeled *HIERVSALEM*. Between the E and R of *HIERVSALEM* is a cross, labeled above the E *crux christi*. In the centre, at the juncture of the horizontal and vertical dividing bands, is an omega-shape with a cross in the centre, labeled beneath *Mons syon*.

C. Europe in principle occupies the left hand side of the lower half of the map, but the label *EVROPA* actually straddles the vertical divider. In the Europe zone, reading from top to bottom and left to right are: *Terra macedonum, Campania, Italia, ROMA, tiberis flumen, Tuscia, mons Ethna, sicilia, KARTAGO MAGNA*.

D. Africa is labeled much more discretely at the foot of the Africa zone (*Affrica*). Above it is the statement corresponding to the one in the Asia zone: *De cham gentes XXX*. The only place names in the Africa zone are at the very top, and two of them, *TERRA IVDA*, and *PALESTINA*, may have been intended as part of the central band (B above). Only the final place name, *CARTAGO*, actually refers to an African location.

E. Great Britain, Ireland and Thule are represented at or over the edge of the *orbis* and in the northern rather than western quadrant. Britain is barely within the frame, and the other islands float outside.

In form, content and function, MS 17's map represents a recent development in medieval cartography. Patrick Gautier Dalché has argued that the 12th century witnessed a transformation of *mappaemundi* from visual glosses appended to parent texts, into

autonomous graphic documents, some of which generated their own explanatory materials. These independent maps tend to occupy the full width of the page, or the page in its entirety. They absorbed significant amounts of text into the schematic frame, such as lists of the provinces of the inhabited world. MS 17 is a rather exceptional graphic gazetteer constructed of three overlapping lists, each with a distinctive tradition: a list of provinces of the inhabited world (ultimately derived from the schematic map accompanying Sallust's *Bellum Iugurthinum*); a list of the nations of the earth descended from the three sons of Noah (cf. Augustine, *De doctrina christiana* 16.6; Isidore of Seville, *Chronicon*); and a list of places associated with Biblical and apostolic history (cf. Isidore of Seville, *De ortu et obitu patrum* 71.151). In form, MS 17's map takes its cue from the first of these three components. It is very close to such contemporary elaborations of the Sallust map as Vatican City, BAV Reg. lat. 571, fol. 71v (s. XI/XII), or the Arnstein Bible map in British Library Harley 2799, fol. 241v (s. XII): the latter is of exceptional interest in that the map shares the page with a schema of the divisions of philosophy not dissimilar to the one on fol. 7r of MS 17. The interpolated Biblical references include the ark of Noah in Armenia, and cities such as Athens and Caesarea that are explicitly connected with the missionary activity of the apostles. Locations in the Holy Land, include tribal territories, places associated with the life of Christ (Nazareth, the Jordan river), Jericho and the "cities of refuge."

Other elements of MS 17's map have also been singled out as innovative. The prominence given to Jerusalem, together with the double representation of the Cross (once on its own, and once on Mount Zion), is a case in point. Anna-Dorothea von den Brincken claims that this map is the first to position Jerusalem in the centre of the world, and not at its eastern extremity. She associates this with the piety of the First Crusade, and the attention given to the Cross would support this claim. MS 17 was made in 1110, barely fifteen years after the First Crusade. A map contemporary with MS 17's -- Saint-Omer Bibliothèque municipale 97 fol. 1r -- also situates Jerusalem in the center. Like MS 17's image, it gives considerable prominence to the circumambient ocean, as well as to the islands of Britain, Ireland and Thule: its creator seems to have been especially concerned to situate his own region with respect to the extremes of the world, both to the east and to the west. This is a preoccupation of the First Crusade era, and its apocalyptic resonances are particularly noticeable in the world maps of Lambert of Saint-Omer's *Liber Floridus* (1112/1115-1121 #217). England's geographic position may have made it especially sensitive to this apocalyptic dimension: the second of two notes on chronology in Oxford Bodleian Library Auct. F.5.19, fol. 82v, a manuscript contemporary with MS 17, adopts a four-ages scheme somewhat like that found in the dating clause on fol. 3v, but the fourth age, instead of ending in the *annus praesens*, runs from the Incarnation *ad iter ierusalem*, as if this event closed the series of years and ushered in the end times.

On the other hand, this *mappamundi* is also closely connected in content and context to Byrhtferth's Diagram on fol. 7v. A *mappamundi* with identical arrangement and legends appears in the Peterborough *Computus* (Harley 3667 fol. 8v), a manuscript very closely related to MS 17 in space and time; and the Peterborough *computus* also contains the only other extant copy of Byrhtferth's Diagram (#205Z13). The only significant difference between the Peterborough version of the map and the one found in MS 17 is that MS 17 alone contains the marginal note on *Asia maior*. However, the Peterborough map does not represent Mount Sion as a round "hill" with a cross, but as a triangle, and spells IERUSALEM without MS 17's initial H. It also omits the note

concerning the nations descended from Japeth. It should also be noted that a second, incomplete copy of this map is found in Cambridge, Corpus Christi College 265, p. 210, the "Commonplace Book" of Archbishop Wulfstan II of Worcester. The manuscript is dated to the last quarter of the 11th century, and this addition to the second half of the 12th century but the hand of the map bears an extraordinarily close resemblance to that of Scribe A of MS 17, and the palaeographical indicators point to a date closer to 1100. The frame of the map, a double circle, was drawn in drypoint, and at the right and left upper corners of the page are two smaller drypoint circles. The inscriptions are: *ASIA MINOR* within an oval frame; *Quod sunt septuaginta due \os orte/ gent<es>*; *DE SEM GENTES XXVII*; *ACHAIA sanctus andreas; cili<cia>*; *cesaria hic petrus predicauit*; and the bow representing the Ark of Noah.

The content of the map also finds parallels in Byrhtferth's Diagram. The map is oriented, and the four cardinal directions are labeled in Greek, with Latin glosses: *ANATHOLE ID EST ORIENS VEL EOI* [i.e.]. *Mesembrios id est meridies uel auster. Disis id est occidens uel occasus. Arcton id est septentrio.* When these Greek names for the cardinal directions are read as if making the sign of the cross, that is, east-west-north-south, their initial letters spell ADAM. The popularity of this ancient conceit was primarily due to St Augustine, who compared Adam's progeny filling the earth and the sons of Noah repopulating the globe. It appears in Bede's commentary on *Genesis*, and is prominently featured in Byrhtferth's Diagram. Insular writers were particularly attracted to this theme, because they associated the conversion of their lands, at the very edge of the known world, with the fulfillment of Christ's command to take the Gospel to the ends of the earth. This fulfillment would be the climax of history, and would usher in the last days; hence the world-maps included in the *Apocalypse* commentary of Beatus of Liebana were essentially maps illustrating the preaching of the apostles to the *gentes* descended from Noah's three sons, but expanded to encompass the whole world and the entirety of the world-age (#207). Indeed, *mappaemundi* have a pronounced historical dimension: they are found in association with chronicles more frequently than in scientific works, and as illustrations of sacred history, they were infused with an allegorical vision of time. Hence this world map is a logical addition to a manuscript devoted to the reckoning of time.

But there is also a particularly insular connection between *computus* and universal geography, one that is connected to the debates over the correct system of calculating Easter that marked the early years of Christianity in England. In his account of the Synod of Whitby, Bede reports that Wilfred invoked Rome as the center of the world, the place where Peter and Paul taught, were martyred and buried, and listed the various Christian lands which follow the orthodox reckoning: Italy, Gaul, Africa, Asia, Egypt, Greece... The British Isles and Ireland were little corners of the outer margins of the *orbis terrarum*, which further served to marginalize the deviant *computus* of the island churches. Moreover, in Book 5 of the *Historia ecclesiastica*, Bede follows up his account of Adomnan of Iona's reception of the Roman Easter with a paraphrase of his *De locis sanctis*: now it is Jerusalem, not Rome, which is the center of the world, but the link between computistical orthodoxy and the universality of the Church in space is still the underlying message.

In sum, this map presents a perplexing double aspect. Its overall form corresponds to that of the new style of self-standing, text-intensive maps which Gautier Dalché assigns to the 12th century, and its emphasis on Jerusalem and the cross links it to Crusader cartography. But the ADAM device, to say nothing of its proximity to

Byrhtferth's Diagram both in MS 17 and in the Peterborough *computus*, argue forcefully for its derivation from Byrhtferth or his milieu.

Schematic maps of the *oikumene* of the T-O type are often embedded in *computus* diagrams as a shorthand representation of the earth; zone maps illustrating the climates of the earth, derived from Macrobius' *Commentum in Somnium Scipionis* (#201), appear in anthologies of cosmographic materials as illustrations of passages from Isidore (cf. fol. 40r) or Bede (cf. gloss 70 to *De temporum ratione*). A map of the Macrobian type also appears in the Abbonian *computus* manuscript Berlin 138 fol. 39v. A list map using the T-O form as a symbolic frame for displaying the names of provinces in Asia, Africa and Europe appears in *Cotton Vitellius A.XII*, fol. 64r; a note about Noah and his sons on the verso of fol. 64, underscores the magnetic attraction of these two ways of listing the inhabitants of the world, and how innovative MS 17 was in fusing them.

Gautier Dalché sees maps like the one in MS 17 as autonomous addenda to *computus* manuscripts, but offers no explanation why they should be included at all. Evelyn Edson, on the other hand, argues that MS 17's *mappamundi* is one of a small group of complex maps directly inspired by *computus* themes. In this category she includes *oikumene* maps, often quite large, such as the one in Vatican City BAV 6018 fols. 63v-64r, (s. VIII or IX in). Of the two maps in *Cotton Tiberius B.V. 1.*, the first is a modified Macrobian climate-zone map, very like Abbo's (fol. 29r) in which only the northern temperate zone -- the *oikumene* or inhabited world -- is treated like a map, while the remainder of the disk is occupied solely by text. The second Tiberius *mappamundi* (fol. 58v) is a very detailed and realistic map of the *oikumene*, labeled by the scribe as an illustration of Priscian's *Periegesis* (the text which follows), but incorporating Biblical place names not in Priscian: the tribes of Israel, Noah's ark, the lands of Israel's enemies the Philistines, Moabites etc., Galilee, Bethlehem and Jerusalem. MS 17's *mappamundi* is by comparison distinctly abstract and textual. Edson tentatively suggests a comparison to the maps of the Holy Land created by the Talmudic scholar Rashi to expound the sacred text; however, MS 17's map does not illustrate a text. Like Byrhtferth's Diagram, it is a self-contained graphic presentation of complex religious and cosmological themes: in Edson's words, it is "a spiritual diagram of the earth." Gautier Dalché also underscores the contemplative and visionary dimensions of cartography's "God's eye view" of the world and time, particularly in maps like those of MS 17, so richly adorned with references. In this respect, MS 17's map is an integral part of a monastic encyclopedia, in which the study of the world and time is itself a serious discipline.



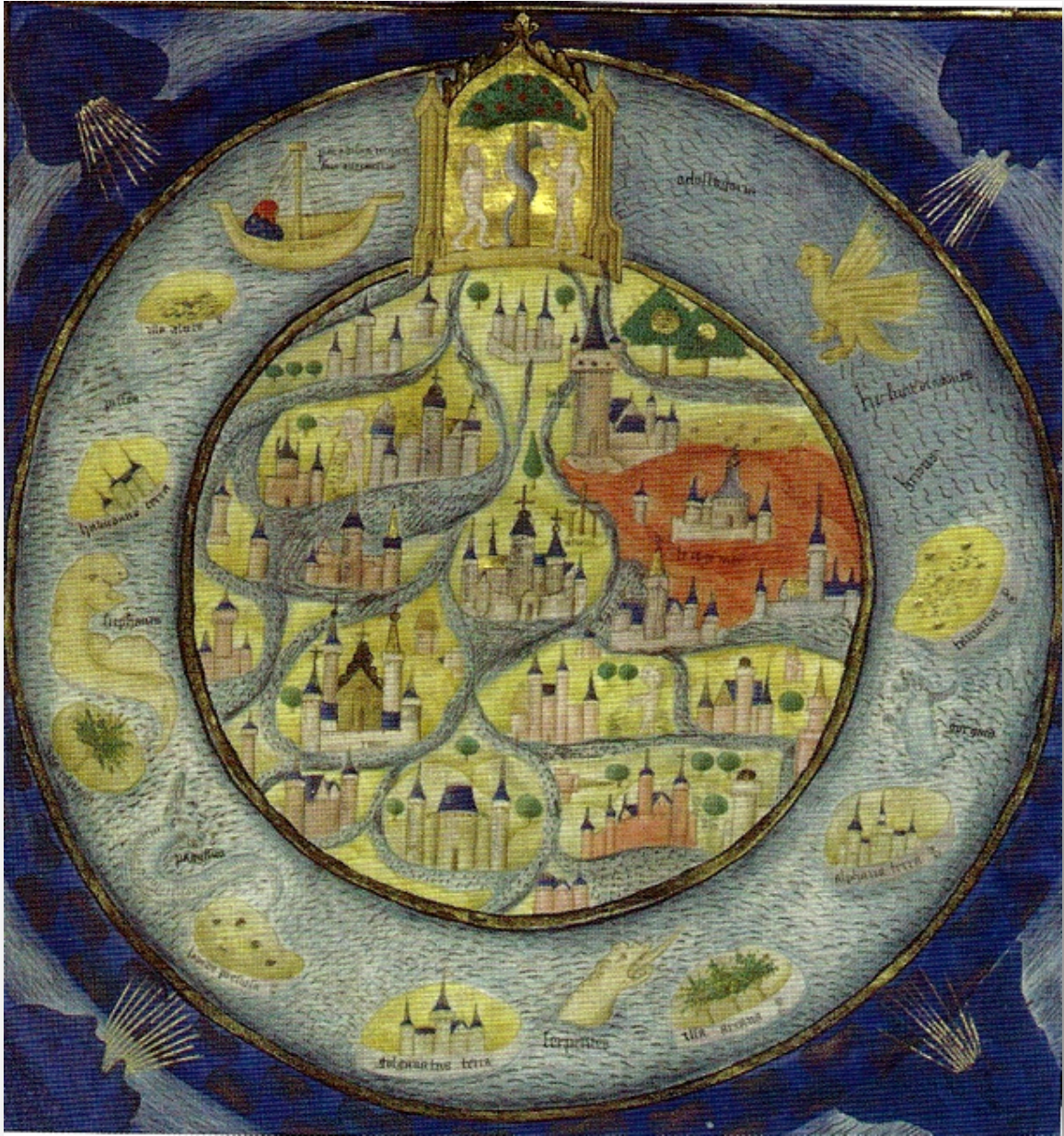
T-O Noahic map from Jean Mansel's *La fleur des histoires*, Lambert of St Omer, 30x22cm, 15th century showing the three continents settled by the three sons of Noah – Shem, Ham and Japhet (#205K2)

In about 1446-1451 Jean Mansel composed a universal history titled *La fleur des histoires*, and then in the 1460s wrote a longer version of the same work. A famous and often reproduced world map in a manuscript of the short version of Mansel's book, which was probably made by Simom Marmion in about 1460, illustrates the division of the world among the three sons of Noah. Another world map in a manuscript of the long version of the book, this one created c.1480, for this map contains large and prominent sea monsters in the circumfluent ocean. The map (shown below) is in a chapter on the "Provinces du monde," but there is almost no connection between the map and the list of provinces in the chapter. Adam, Eve, and the serpent are in *Eden* at the top (east) of the map, with the rivers of *Paradise* flowing downward from it to the west (the river Jordan is labeled). Jerusalem stands out at the center of the world and is labeled, as are Calvary, Babylon, the Red Sea, and Rome; the *Trees of the Sun and Moon* visited by Alexander the Great are also easy to identify. But otherwise the map's geography is vague; it presents much of the earth as a "jumble" of land and water. The map has a strange wall-like division between the *ecumene* and the circumfluent ocean.

The map is placed at the start of the prologue to Book IV, in which a description of the regions of the world is given in alphabetical order. Mansel's description includes ancient places such as Carthage and Delos, biblical places such as Babylon and Judaea, and lands of contemporary importance such as Westphalia and Gascony. His aim was to show how Rome developed from a small town to a global empire, almost every corner of which had been penetrated by Christianity before the empire passed to the Franks. The map is circular. Heads symbolizing the four principal winds surround the habitable world, on which a number of historical or encyclopedic features are portrayed, such as the *Tower of Babel*, the *Trees of the Sun and the Moon*, the river Jordan, Jerusalem with Mount Calvary, the Red Sea, Rome, and some of the monstrous races. At the apex of the circular terrestrial landmass, in the distant east, is *Paradise*. Adam and Eve, the tree and the serpent are shown within an ornate architectural frame, as if to emphasize the uniqueness and splendor of the Garden. From *Paradise* the four rivers flow out to give life to the earth and to establish a mysterious yet material connection between paradise and the human realm. In his book, Mansel described *Paradise* as a wonderful region surpassing all other earthly lands, fit for man's initial perfection, surrounded by a wall of fire and situated on an exceptionally high mountain that reached the sphere of the moon.

There are six sea monsters in the ocean, and each is labeled. Beginning from the west and proceeding clockwise; these are: (1) the head of a sea serpent protruding from the water, with a long tongue, labeled *serpentes*; (2) a sea serpent with a human head and horns, whose whole body is visible, labeled *pagassus*; (3) a sea monster that looks like an embryo, but which is probably intended to be a seal or similar animal, labeled *luphanes*; (4) a fish with a large toothy mouth labeled *pisses* (for pisces); (5) a winged dragon with the legend *hic sunt dragones*; and (6) the forequarters of a sea monster with a horned head, gaping mouth, and two forelegs, labeled *gorgato*. The *pisses* and *serpentes* require no explanation. The legend *hic sunt dragones*, "Here there are dragons", sounds like a legend that would appear on many medieval maps—such is our tendency to associate monsters with medieval maps—but in fact it appears on only one other cartographic object, namely the Hunt-Lenox globe of c.1510 (*Book IV*, #314), where on the southeastern coast of Asia there is a legend that reads *HC SVNT DRACONES*.

The name *gorgato* recalls the medieval Latin *gargata* and Old French *gargate*, meaning “throat,” perhaps alluding to the creature’s voracious nature, but these monsters seem to have been invented by the cartographer. Of course that is the easy conclusion, but it is rendered very plausible if we look at the names of some of the islands in the circumfluent ocean—*golgavatas terra*, *lapides presiosa* (for *lapides pretiosi*, “precious stones”), *habundans terra*, *illa deserta*, *tamaria*, *alphaua terra*, and *illa arcana*, for example—which are quite clearly invented. In fact none of the islands in the circumfluent ocean which are discussed by Mansel—*Grande-Bretagne*, *iles Fortunees*, *Gales*, *Irlande*, *Orcades*, *Escosse*, *Thanatos*, *Taprobane*, *Thule*, and *Islande*—appears on this map. The prominent sea monsters on the map are thus invented dangers, rather than being based on the descriptions of sea monsters in a bestiary or encyclopedia, and the labels, like those on the islands, are attempts to convey an authority and accuracy which in fact are absent. These monsters, though invented, nonetheless have their effect, and render the circumfluent ocean a place of terrors, in contrast to the apparently peaceful buildings of the inhabited world. As this manuscript is the only one of the long version of the work that contains a world map, it seems likely that the map was the result of a specific request by the patron commissioning the manuscript, namely Philippe II Sans Terre (1438-1497). But once he had been assigned this task, the artist seems to have given his fancy free rein.



World map, from Jean Mansel, *La Fleur des histoires*. France, c.1460-70. 38 X 28 cm. Brussels, Bibliotheque Royale de Belgique/Koninklijke Bibliotheek van Belgie, MS 9260, fol. 11r.

The east-orientated map features the inhabited earth crowned by the earthly paradise. It immediately precedes the prologue to Book IV, which includes a regional description of the world in alphabetical order. Within each letter, though, places are not described in strict alphabetical order. Under the letter 'A', for example, we read first about Asia and Assyria, then Arabia, Armenia and Albania. Paradise is listed before Parthia, Pamphilia and Pannonia. The text also retains Isidore's distinction between the Fortunate Islands and the earthly paradise and repeats the belief that Enoch and Elijah dwell in the Garden and that the noise of the waters of Paradise falling to earth from a such a great height caused the local population to be born deaf.



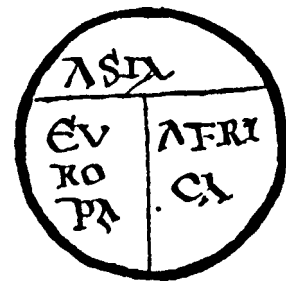
Gunter Zainer's 1472 T-O map, the first printed map in Europe. (#205)

The T-O map tradition did not die out as a cartographic form of expression until as late as the 17th century, as may be seen from a book such as the *Variae Orbis Universi*, by Petrus Bertius, 1628.

The T-O maps received their classical explanation in a 15th century poem by the Italian historian, Leonardo Dati (1365 - 1424), in his *La Sfera* (c.1420)

Un T dentro adun O monstra il disegno
 chome inttre partti fu diviso il mondo
 elasuperiore emagor rengno
 chequasi pigla lameta delmondo

asia chiamatta elgrenbo ritto segno
 chepartte ilterzo nome dalsecondo
 africho dicho daleuropia elm
 are mediteraneo traese imezzo apare.



[A T in an O
 gives us the
 division of the
 world into three parts.

The upper part and the greatest empire
 take nearly the half of the world.
 It is Asia; the vertical bar is the limit
 dividing the third from the second, Africa,
 I say, from Europe; between them appear
 the Mediterranean Sea.]

Images:

- 205 T-O map from Isidore of Seville's *Etymologiarum*, Günter Zainer 1472, 6.4 cm/2.5 diameter
- 205A1 T-O map from Isidore of Seville's *Etymologiarum*, detail, Günter Zainer, 1472. 64 cm diameter
- 205AA Y-O map from MS of Bede's *De natura rerum*, John of Wallingford, 1250 8.2 cm diameter
- 205B T-O map from Isidore of Seville's *Etymologiarum*, unknown, ca. 1500
- 205B2 T-O map reconstruction, unknown, modern
- 205B3 T-O map reconstruction, unknown, modern
- 205BB Byzantine-Oxford T-O map, unknown, 1110, 17 cm dia, Abby of Thorney, England, MS 17, fol 6r
- 205C T-O map from Isidore of Seville's *Etymologiarum*, unknown, 10th century, 11.5 cm diameter, Biblioteca Medicea Laurenziana, Florence, Plut. 27 sin 8, fol. 64v
- 205C1 T-O map from Isidore of Seville's *Etymologiarum*, unknown, modern, 11.5 cm diameter
- 205CC Diagram map from MS of Bede's *De natura rerum*, Bede, ninth century, 24 cm square, Bayerische Staatsbibliothek, Munich, Clm 210, f. 132v
- 205D T-O Map, unknown, 13th century, 26.9 x 15.9 cm
- 205DD Isidore mappamundi, unknown, 11th century, 26 cm diameter, Bayerische Staatsbibliothek, Munich, Clm 10058, f. 154v
- 205E T-O map from Isidore of Seville's *Etymologiarum*, unknown, Santarem s *Atlas compose de mappemondes* . . . Paris 1849
- 205EE *Situs Hierusalem* (map of Jerusalem), unknown, ca. 1100, 21.5 x 12.7 cm
- 205F T-O maps from 12th cen. Sallust MS + from Zacharias *Orbis breviarium*, unknown, 12th cen./1493, Biblioteca Vaticana
- 205FF map of Jerusalem, unknown, 12th century, Koninklijke Bibliotheek, Ms. 76 F 5, fol.ir
- 205G T-O Sallust map, unknown
- 205GG Circular Plan of Jerusalem, unknown, 13th century, 26 cm diameter, British Library, Additional MS. 32343, f. 15v
- 205H T-O Sallust map from *Bellum Jugurthinum*, unknown, 14th century, Biblioteca Nazionale Marciana, Venice, Fond. Ant. Lat. 432
- 205HH Reverse T-O map from MS of Isidore's *De natura rerum*, unknown, 12th century, 19 cm diameter, Cathedral Church of Exeter, MS. 3507, fol. 67r
- 205I T-O from Strasburg MS, unknown, ninth century, Strasburg MS
- 205II T-O Map, unknown, 13th century, Strasburg MS
- 205J T-O Map, unknown
- 205JJ T-O map from MS of Isidore's *De natura rerum*, unknown, ninth century, 12.5 cm diameter, Burgerbibliothek, Bern, Codex 417, fol. 88v, Bern
- 205K T-O from Jean Mansel's *La fleur des histioes*, Lambert of St. Omer, 15th century, 30 x 22 cm, Bibliotheque Royale Albert Ier, Brussels, MS. 9231, fol. 281v
- 205KK T-O map showing 4th continent, unknown, 11 cm diameter, Stiftsbibliothek, Codex Eins. 263 [973], fol. 182r, Einsiedeln
- 205L T-O map from Isidore of Seville's *Etymologiarum*, unknown, 13th century, 18.5 x 18.5 cm
- 205LL Sallust T-O map from *De bello Jugurthino*, West oriented, unknown, 6.8 cm diameter, Bibliotheque Nationale, MS. Lat.6253, fol. 52v, Paris
- 205M T-O map from Isidore of Seville's *Etymologiarum*, unknown, eighth century, 22 x 29 cm, Vatican Library, MS Vat. lat. 6018, fols 63v-64r
- 205MM Sallust T-O map with symmetrical rivers, unknown, 13th century, 10.5 cm diameter, Gonville and Caius College, MS. 719/748, fol. 37v, Cambridge
- 205N Sallust T-O map unknown, 13th century, 10.5 cm diameter, Gonville and Caius College, Cambridge MS. 719/748, fol. 37r
- 205NN Climatic Zone and T-O maps, from *Novissime Hystoriae*, Giacomo Foresti
- 205O T-O Sallust map, unknown, 13th century, 4.3 cm diameter, Bibliotheque Nationale, Paris, MS Lat. 6088 Reg 5974, fol. 33v
- 205OO T-O List Map, 10th cent, 11 cm dia, British Library, BL Cotton MS Vitellius A.XII. fol. 64r
- 205PP T-O Map, 12th century, 7 cm diameter, John Rylands University, Rylands MS 8, fol. 8v
- 205Q T-O map from Isidore of Seville's *Etymologiarum*, unknown, 10th century, 11.5 cm diameter, Biblioteca Medicea Laurenziana, Florence, Plut. 27 sin. 8, fol. 64v
- 205QQ Sallust T-O map, 11th century, 11 cm diameter, Bodleian Library, Bodleian MS Rawl.G.44, fol. 17v
- 205R T-O map from Isidore of Seville's *Etymologiarum*, unknown, 13th century, 13 cm diameter
- 205RR Sallust & Lucan Maps, 14th century, 8.5 cm diameter, Bodleian Library, Bodleian MS lat.class.d.14, fol. 137v
- 205S Y-O map from Isidore of Seville's *Etymologiarum*, unknown, 11th century, 10.8 cm diameter

- 205SS Arnstein Bible Map, 12th century, 27 cm dia, British Library, BL MS Harl. 2799, fol. 241v
- 205T T-O and -V maps from Isidore of Seville's *Etymologiarum*, unknown, 12th century, 7.2 cm diameter, BnF, Manuscrits (Latin 10293 fol. 139)
- 205TT T-O world map by Chatillon, Gautier de Chatillon, 13th century, 7 cm diameter, Bodleian Library, MS Bod. 527, fol. 189v
- 205U T-O map, Marcus Annaeus Lucanus, unknown, 14th century, 13.8 cm diameter
- 205UU John of Walligford World Map, John of Walligford, c. 1250, 8.2 cm diameter, British Library, BL Cotton MS Julius D.VII, fol.46r
- 205V T-O map, north orientation, Gautier de Chatillon, 13th century, 10.4 cm diameter
- 205V1 Gauthier de Chatillon mappimundi, Alexandreis, Gauthier de Chatillon, 13th century, Bibliotheque Nationale, Fonds Francais 11334, fol. 1
- 205VV Psalter Map, unknown, c. 1265, 9 cm diameter, British Library, BL Add. MS 28681, fol.9v
- 205W Y-O map from Macrobius' *Commentarium in somnium Scipionis*, unknown, 12th century, 8.7 cm diameter, Bibliotheque Nationale, Paris, MS. Lat. 16679, fol. 33v
- 205WW Modified T-O Map, 12th century, 9 cm diameter
- 205X T-O map from MS of *L' image du monde*, Gautier de Metz, 13th century, 6.6 cm diameter, Bibliotheque Municipale Verdun (lost)
- 205XX T-O map, first to name Greenland, ca. 1300
- 205Y T-O map from MS of *Commentary on the Apocalypse of Saint John* (Beatus), unknown, 11th century, 4.7 cm diameter, Bibliotheque Nationale, Paris, MS. Lat. 8878, fol. 7r
- 205YY Zonal Map by William of Conches, 14th century, Bodleian Library, MS Digby 107, fol. 30v
- 205Z T-O map from MS of Bede's *De natura rerum*, Bede, 12th century, 8.1 cm diameter, Bibliotheque Nationale, Paris, MS. Lat. 11130, fol. 82r
- 205Z10 TO Isidore of Seville, 1175, Royal 12 F.IV, f.135v Diagrammatic world map, c.1175 (vellum), British Library BL 11246
- 205Z12 Fitzwilliam TO, 1220-1230, 16.5 cm diameter (26.3 x 17.8 cm), Fitzwilliam Museum, Cambridge, Fitzwilliam MS 254
- 205Z13 TO, unknown
- 205Z14 TO, Gautier de Chatillon, 13th century, 7cm diameter, Bodleian Library, MS Bod. 527, fol. 189v, English
- 205Z15 TO, unknown
- 205Z16 TO, unknown
- 205Z17 TO, unknown
- 205Z18 TO, unknown
- 205Z2 Mappamundi on the Tomb of Darius, c. 1425-50, Alexander in Historienbijbel, The Hage; Koninklijke Bibliotheek, 128C2, fol. 84v
- 205Z22 TO, unknown, British Library
- 205Z3 Mappamundi from *Livre des proprietes des choses*, Jean Corbechon, c. 1372, 40.5 x 30 cm, BnF, Manuscrits (Fr 9140 fol. 243v).
- 205Z5 Mappamundi from *Description de la Confederation helvetique*, Albert de Bonstetten, 15th century, 42 x 32.5 cm, BnF, Manuscrits (Latin 5656 fol. 5v-6)
- 205Z6 Mappamundi from *L' Image du monde*, Gossuin de Metz, 13th century, 6 x 6 cm, BnF, Manuscrits (Fr 1607 fol. 43)

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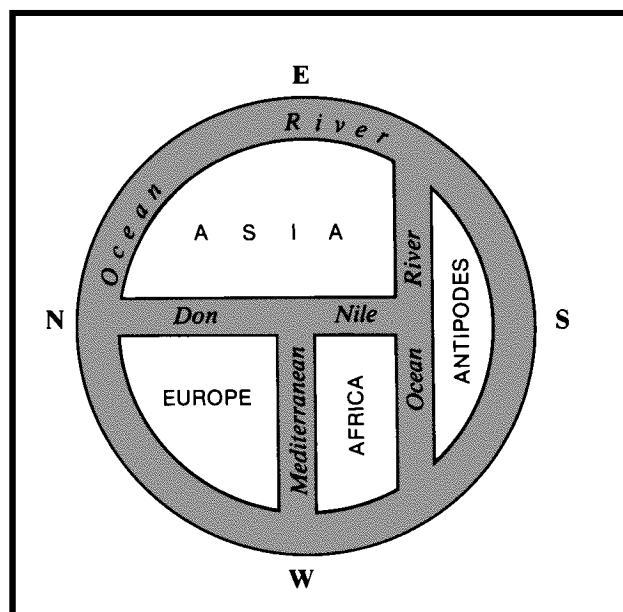
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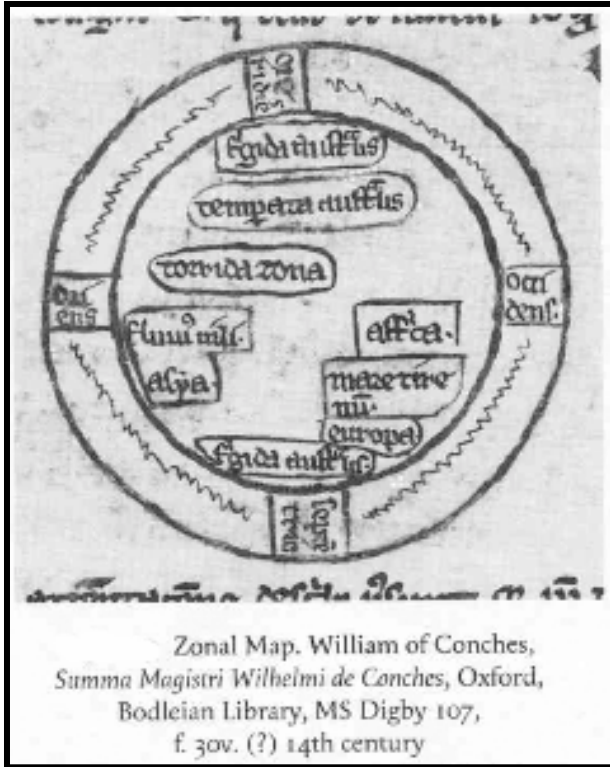
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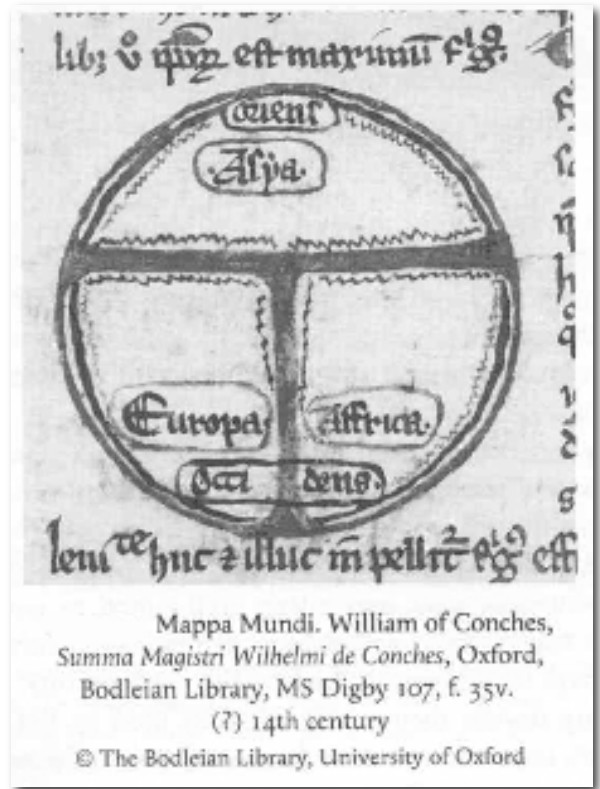
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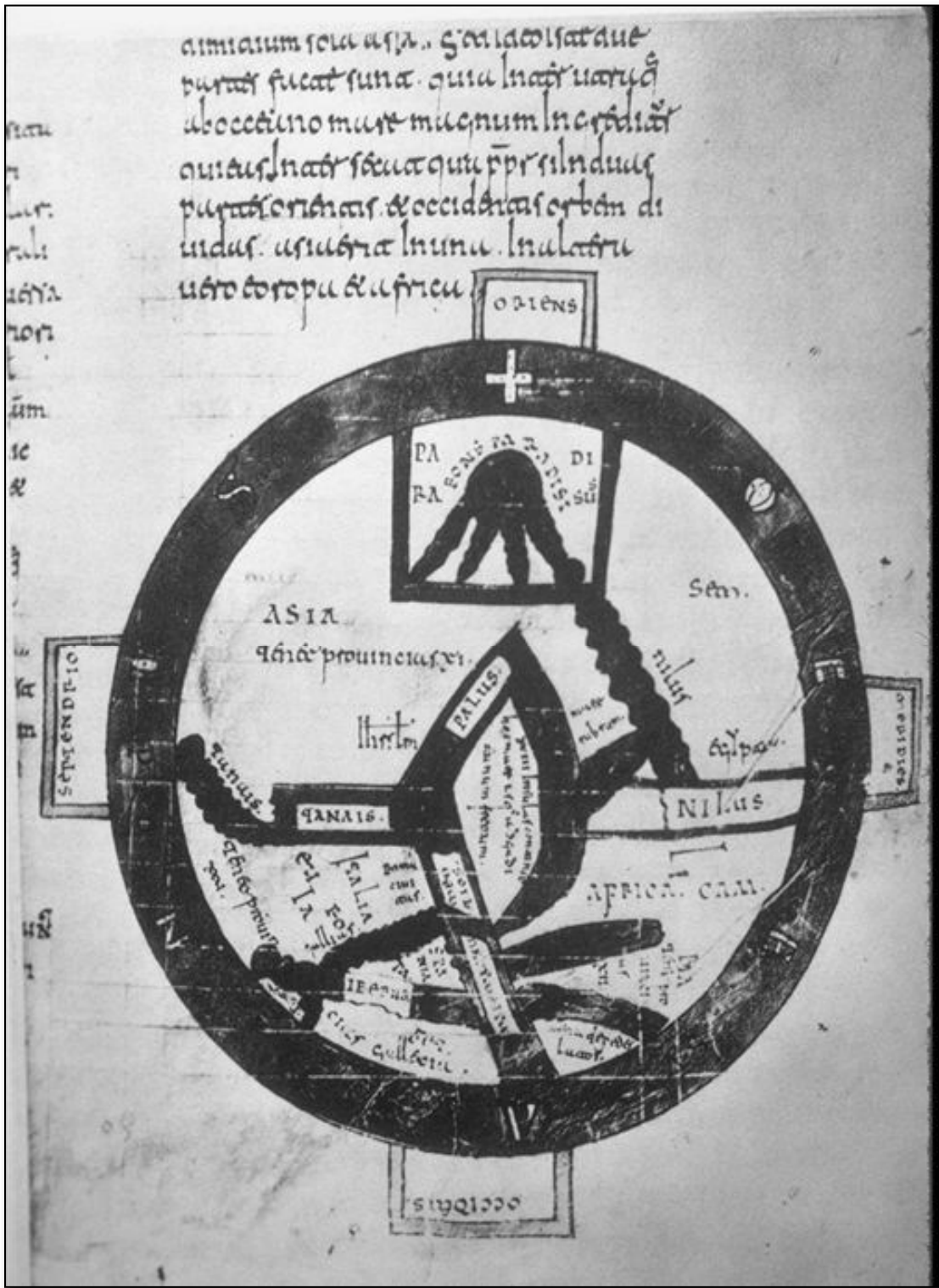




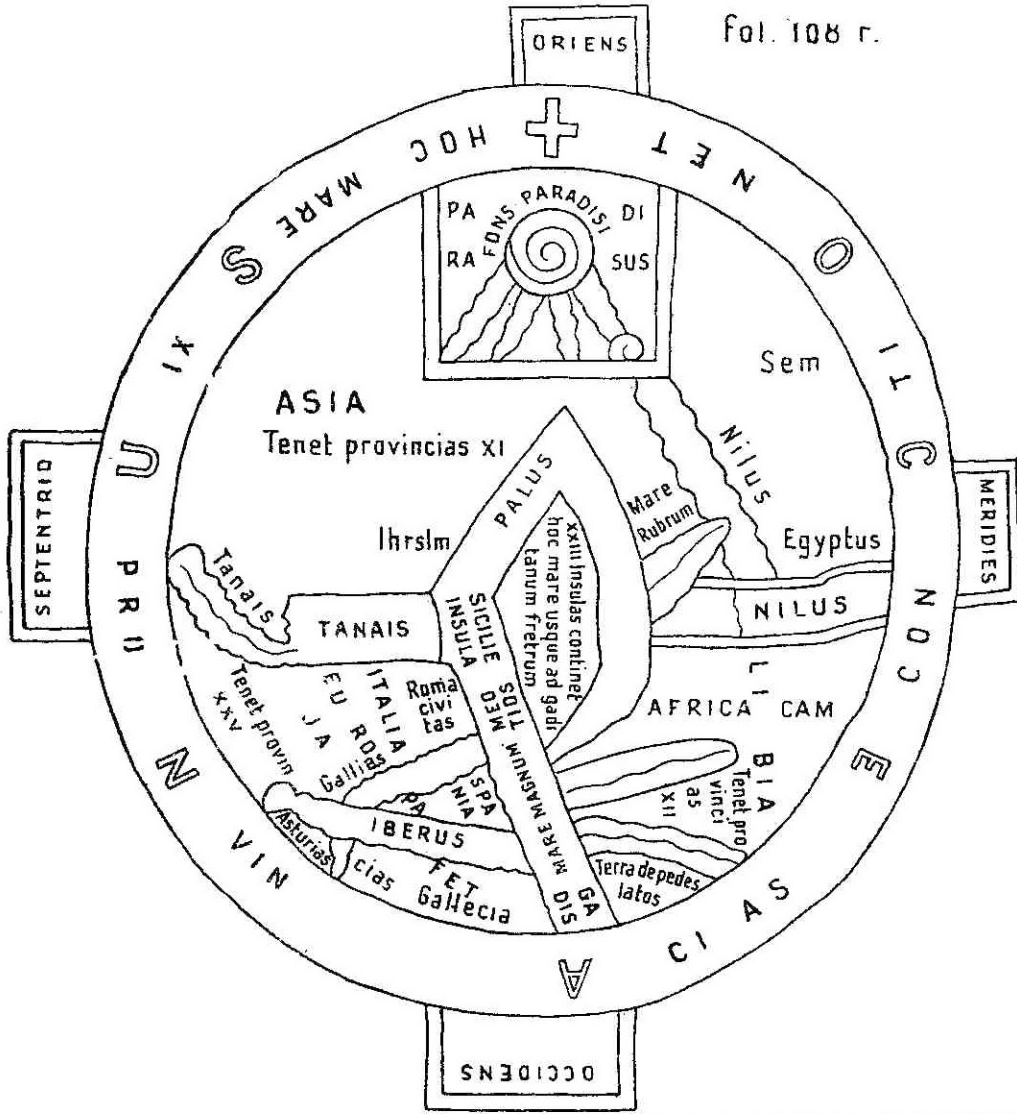
Zonal Map. William of Conches, *Summa Magistri Wilhelmi de Conches*, Oxford, Bodleian Library, MS Digby 107, f. 30v. (?) 14th century



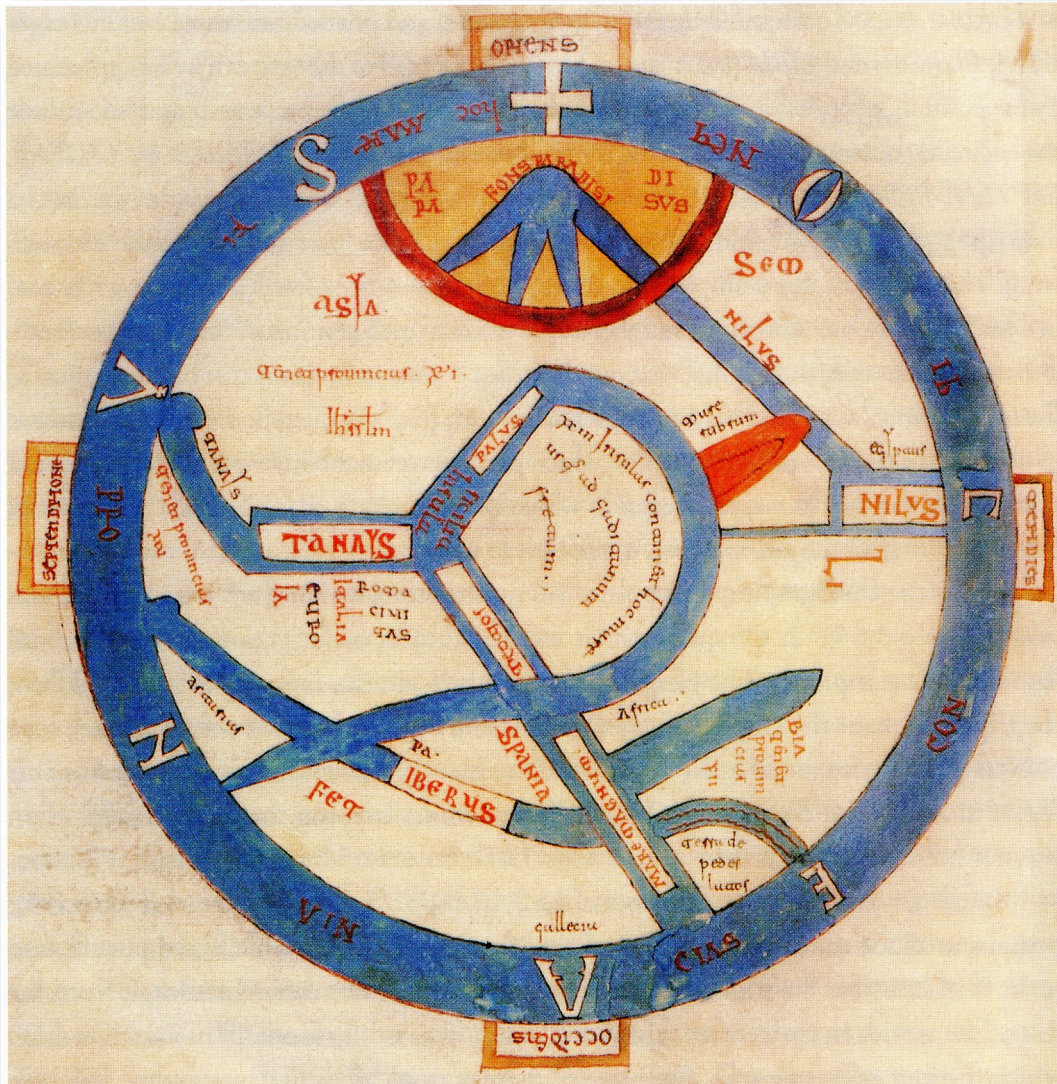
Mappa Mundi. William of Conches, *Summa Magistri Wilhelmi de Conches*, Oxford, Bodleian Library, MS Digby 107, f. 35v. (?) 14th century
© The Bodleian Library, University of Oxford



T-O map from Isidore of Seville's Etymologiarum, 10th century, 11.5 cm diameter (#205C)



T-O map from Isidore's Etymologiae, Real Academia de la Historia, Madrid Cod. 76, fol 108 (#205C1)

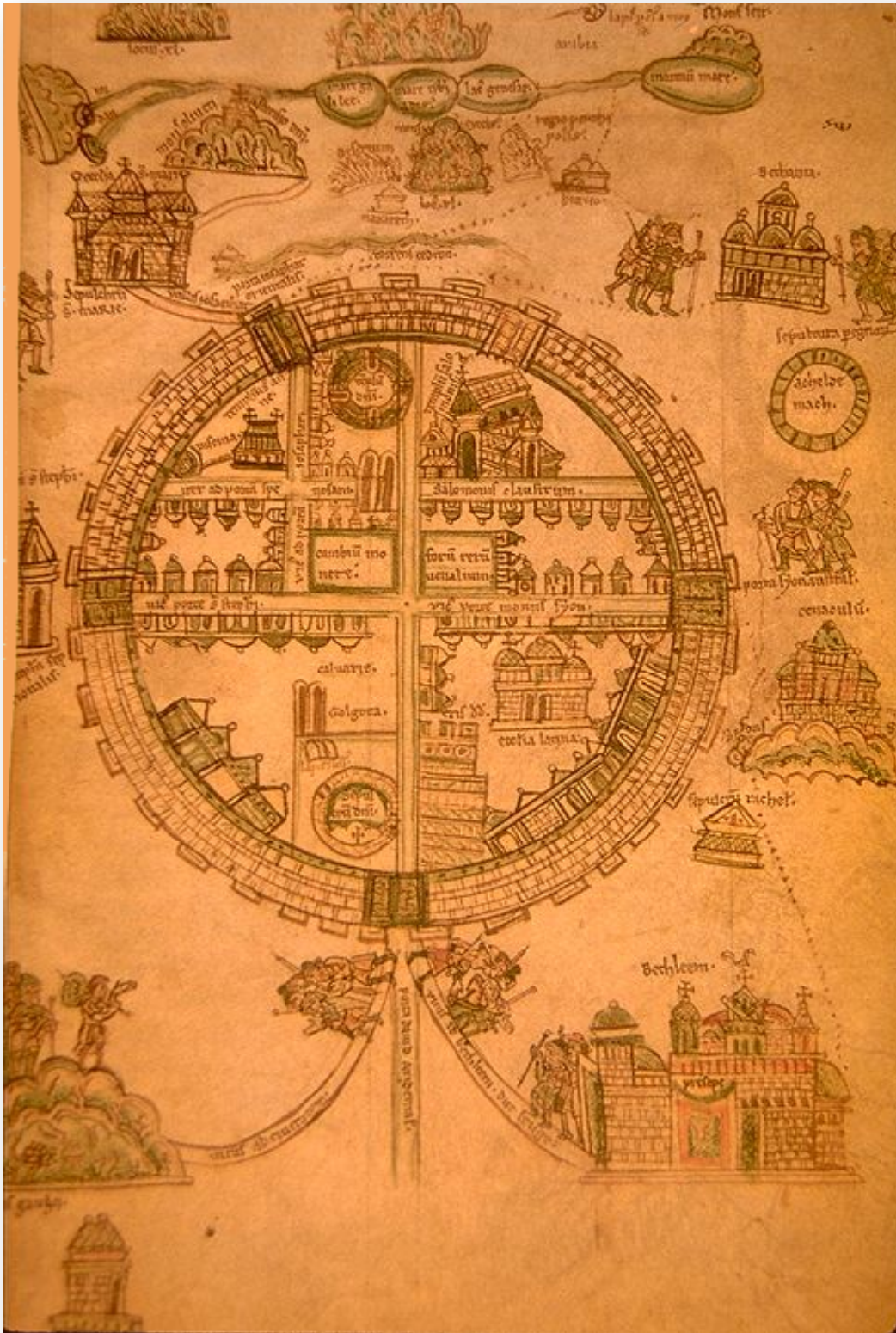


Map of the *Etymologiae* of Sancha and Sancho, 1047, Real Biblioteca of the Monasterio de El Escorial, Madrid Ms. I.3, fol. 177v

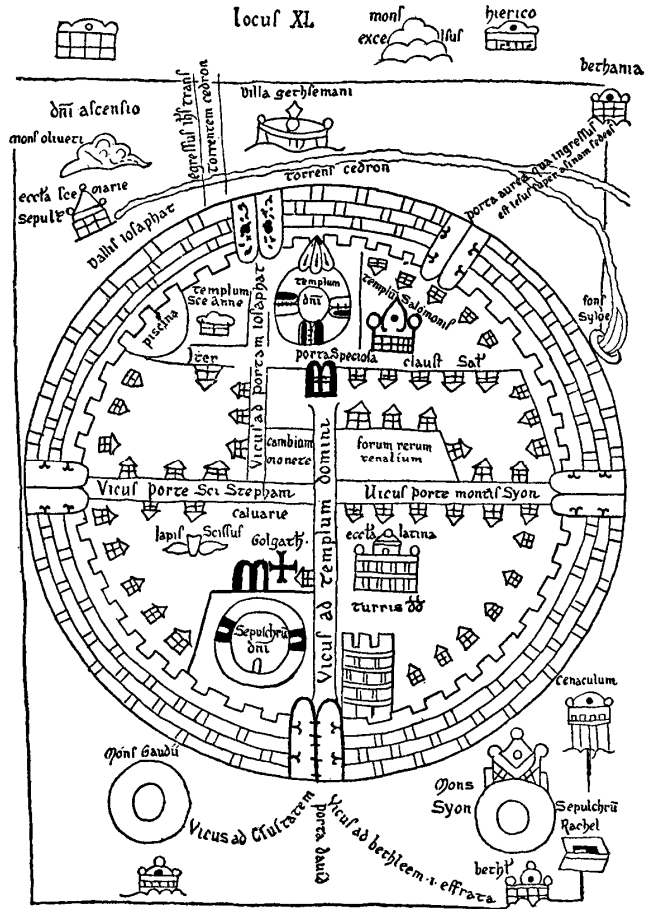
This map was a commission by Queen Sancha of Leon (1013-1067) for her son, the infante Sancho, the future king Sancho II of Castile, perhaps for the purpose of educating him by making him read an encyclopedia which contained a large part of all the knowledge of that time. The image of the map of the *Etymologiae* of Sancha is notable for its coloring and its size (136 mm, and covering the whole of one folio) compared to the paucity of decoration of this manuscript. Following the description of the *Etymologiae* of Isidore, it shows the world in a circular shape, surrounded by the encircling ocean and divided into three continents – ASYA, EUROPA and LIBIA (i.e. Africa). The map is oriented to the east, as may be appreciated by the positioning of Asia in the upper portion, and as stated in the bracketed captions, outside the encircling ocean, which refer to the cardinal points: ORIENS, MERIDIES, OCCIDENS, SEPTENDRIONE. Although it echoes some descriptive aspects in the *Etymologiae*, the Sancha map displays

a greater graphic and textual richness that does not derive from the Isidorian work. This is the case, for example, with the captions in which there is a mention of the number of provinces in each continent and of the ocean, and the number of islands in the Mediterranean Sea. Similarly, this is true of the allusion to the *terra de pedes latos* [land of [the people] of the wide feet], isolated in the form of an island in the extreme north-west of Africa, and which perhaps we might link with the fourth part of the world of the *Beatus mappae mundi* (#207) in which the *sciopods* lived, such as in the map of El Burgo de Osma, or the *pedem latum*, in the Lorvao map. From the cartographic viewpoint, the model from which they were derived was very possibly the “Y in O” map, which was the subject of far greater geographic and iconographic complexity. The Hispanic maps of the Isidorian *Etymologiae* inherited from the tripartite maps the emphasis upon the division of the world between the three sons of Noah, and hence, once again we find their names present in the respective continents (*SEM* in *ASYA*, *IAEET* in *EUROPA*) although whilst copying the Sancha map, Ham was not mentioned in *LIBIA*.

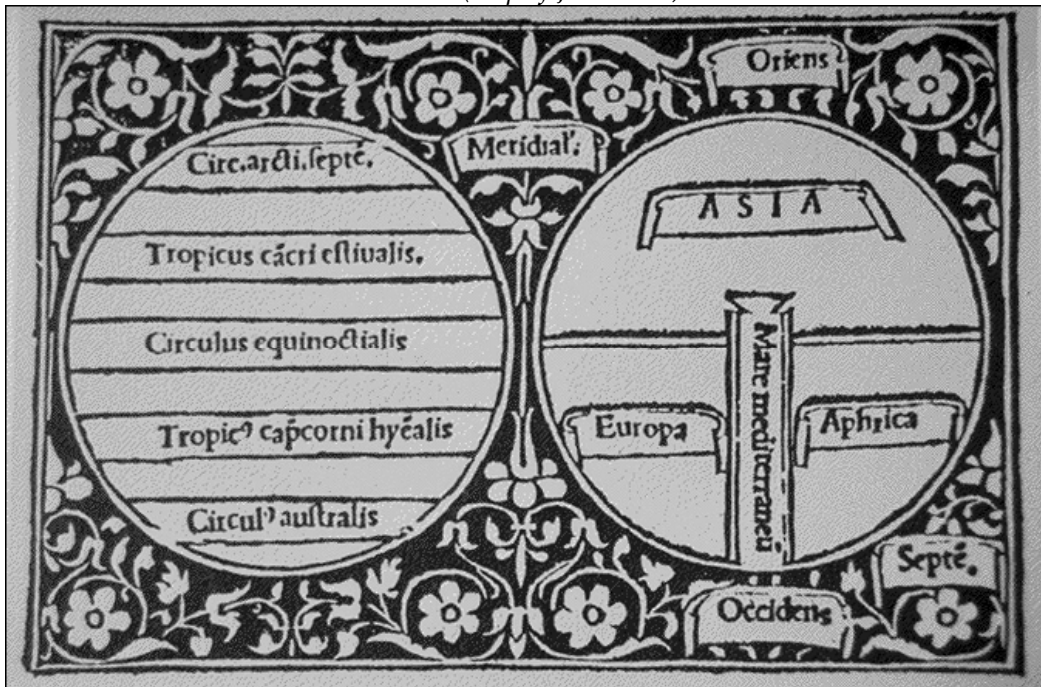
In the far east of the world appears the *PARADISUS*, inscribed in a red semicircle, perhaps to allude to the barrier of fire of the “flaming sword”, which God put there to make it inaccessible. Its surface is in yellow polychromy, thus differentiating it from the rest of the world. In the centre is the *fons paradisi*, that is, the fountain of Paradise, from which the four rivers emanate. Only one of them appears identified by its name, *Nilvs* [the Nile], which traditionally, according to St Isidore in his *Etymologiae* (XIII, 21, 7-10) was associated with the *Gihon* of the biblical texts. This river crosses over the borders of the Earthly Paradise in order to join up with the Nile that separates Asia from Africa. The Red Sea features in the same color as its name suggests. The Hispanic origin of these *mappae mundi* can be appreciated in the major dominance given to the space reserved for the Iberian Peninsula, which covers more than half of the continent of Europe. The *IBERUS* [Ebro River] separates *Gallecia* (Galicia) and *Asturias* from *SPANIA*, which is construed in a triangular shape, perhaps echoing the shape given to it by Orosius in his *Seven Books of History Against the Pagans* (1,2, 69).



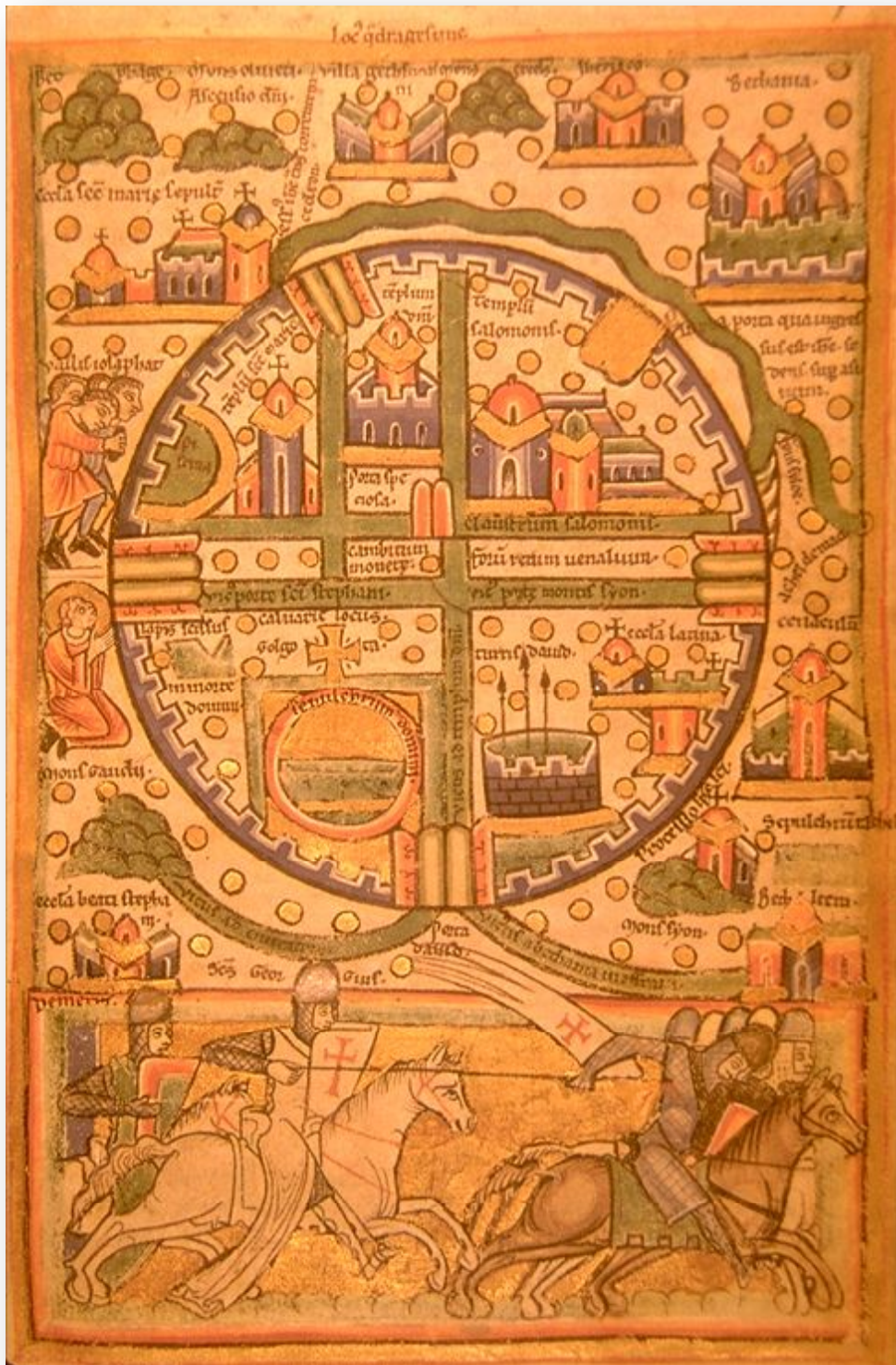
Situs Hierusalem (map of Jerusalem), ca. 1100 A.D., 21.5 x 12.7 cm (#205EE)



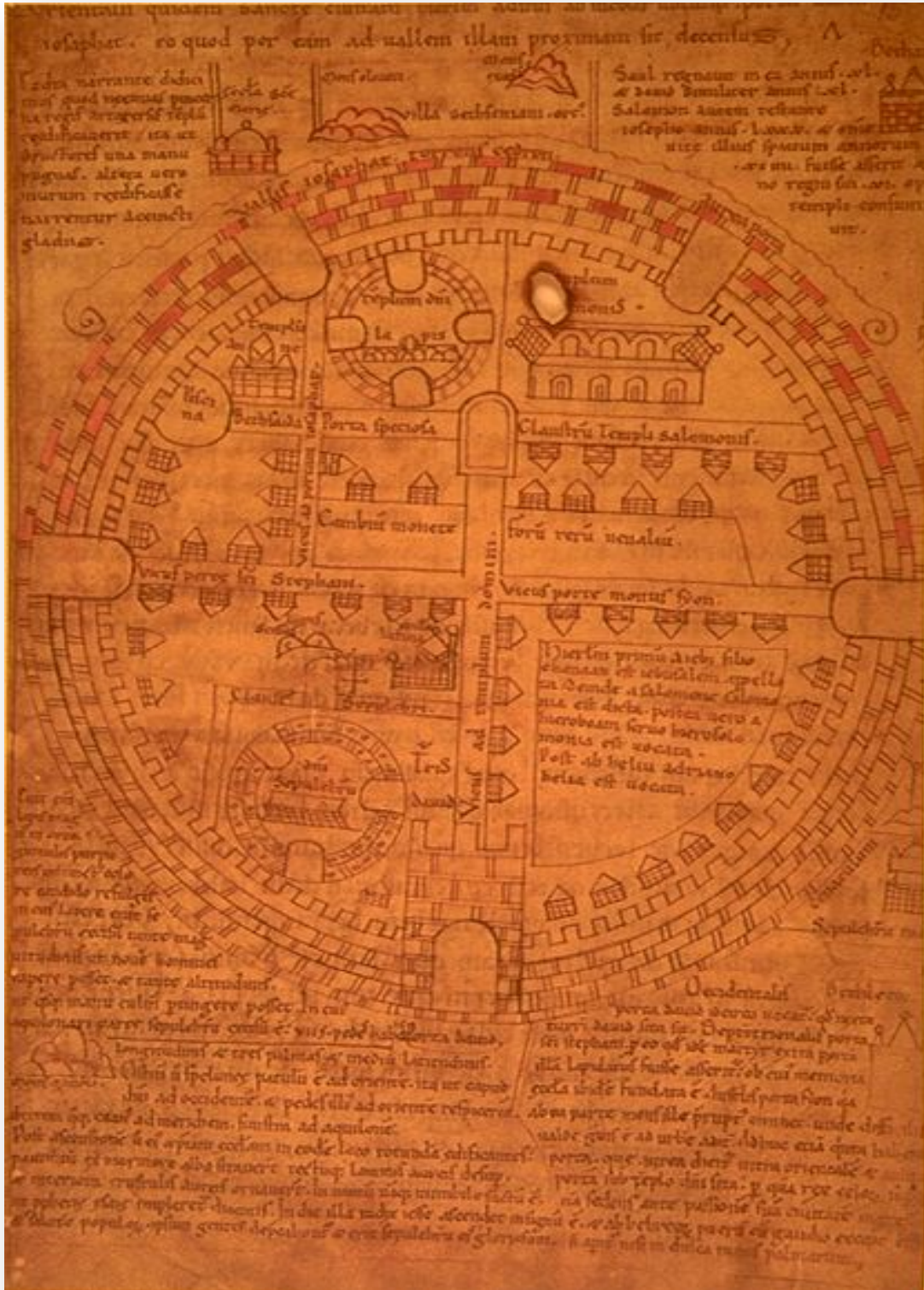
Situs Hierusalem (map of Jerusalem) #205EE1



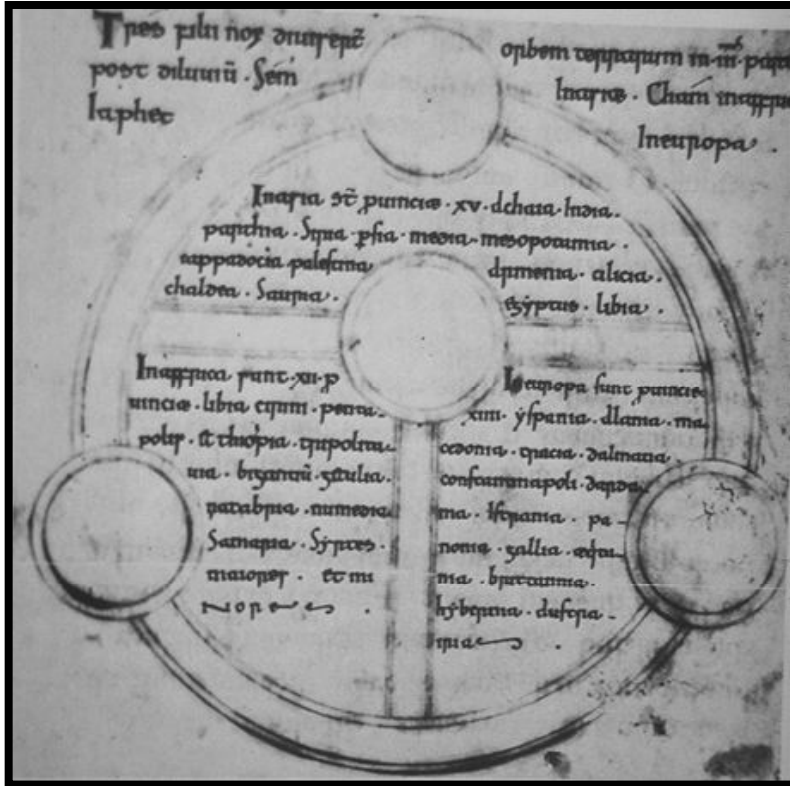
Climatic Zone and T-O maps, from *Novissime Hystoriae* by Giacomo Foresti (#205NN)



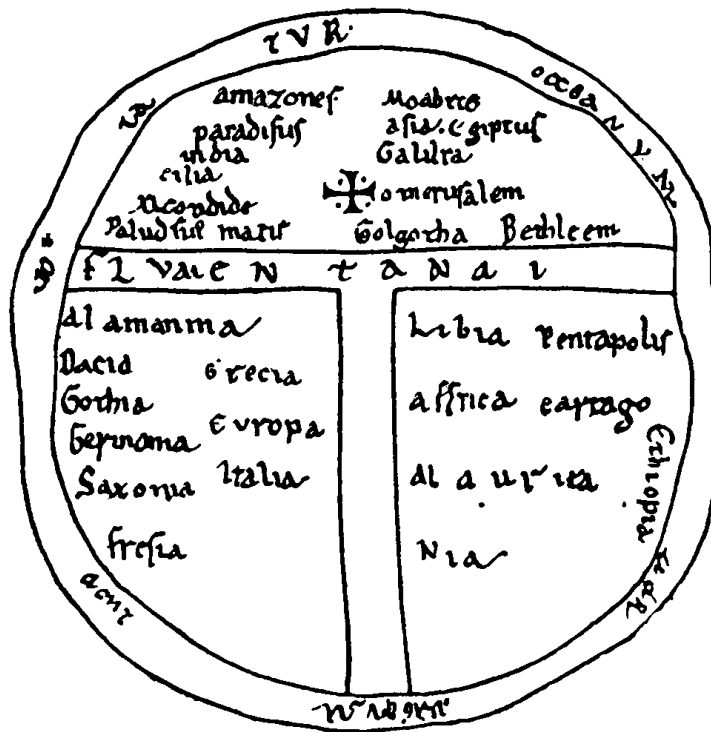
12th century map of Jerusalem (#205FF) Koninklijke Bibliotheek, Ms. 76 F 5, fol.ir



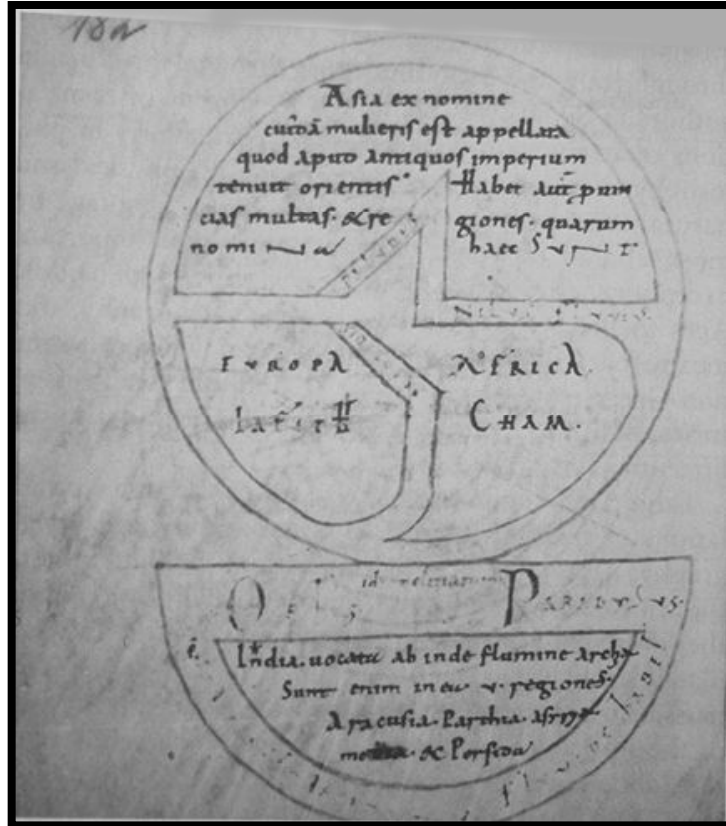
13th century Circular Plan of Jerusalem, 26 cm diameter (#205GG)
British Library, Additional MS. 32343, f. 15v



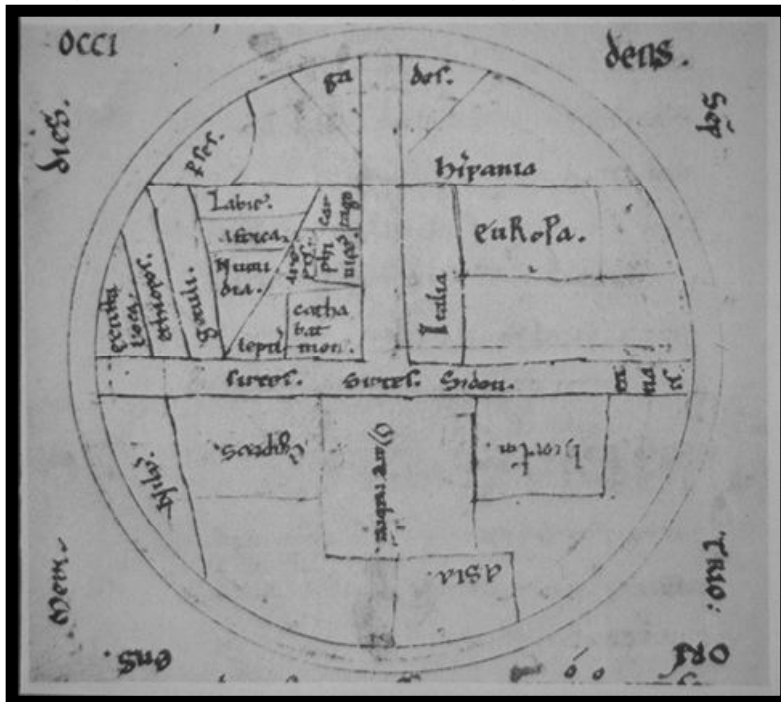
10th century Reverse T-O map from MS of Isidore's *De natura rerum*, 19 cm diameter (#205HH3), Cathedral Church of Exeter, MS. 3507, fol. 97r



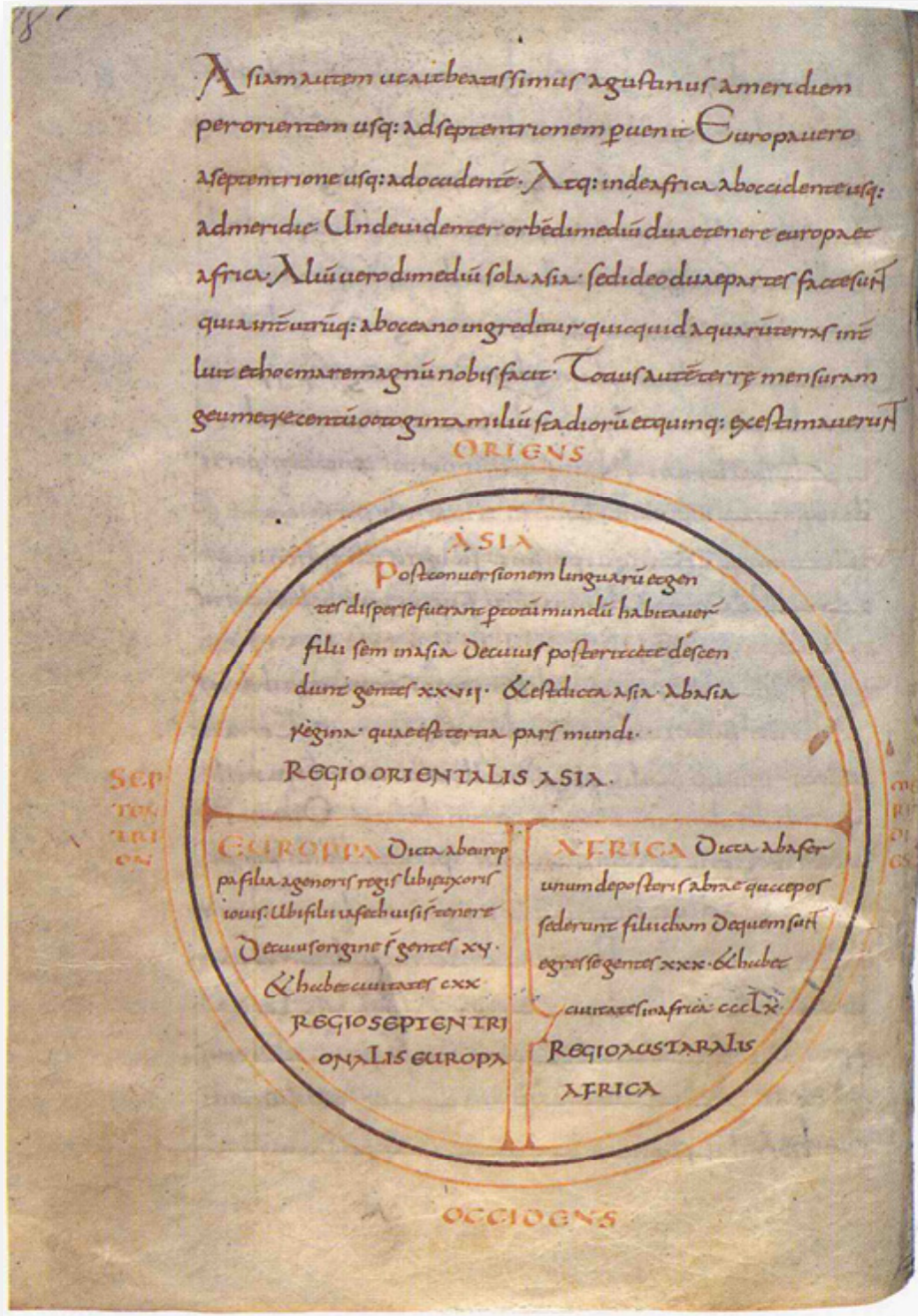
Ninth century T-O map from Strasburg MS #205I



T-O map showing a fourth continent (Antipode), 11 cm diameter (#205KK) Stiftsbibliothek, Codex Eins. 263 [973], fol. 182r, Einsiedeln



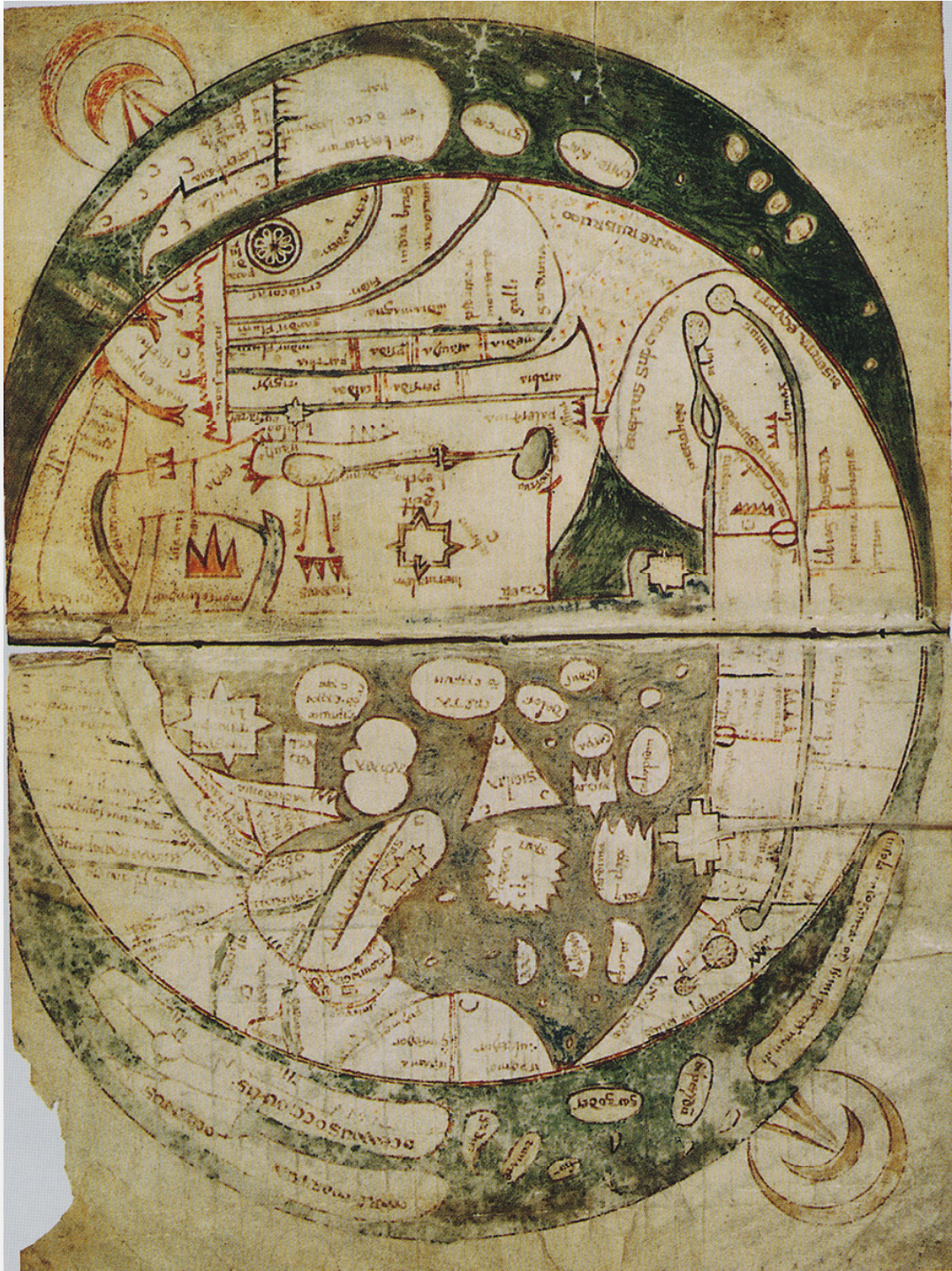
Sallust T-O map from De bello Jugurthino, West oriented, 6.8 cm diameter (#205LL) Bibliotheque Nationale, MS. Lat.6253, fol. 52v, Paris



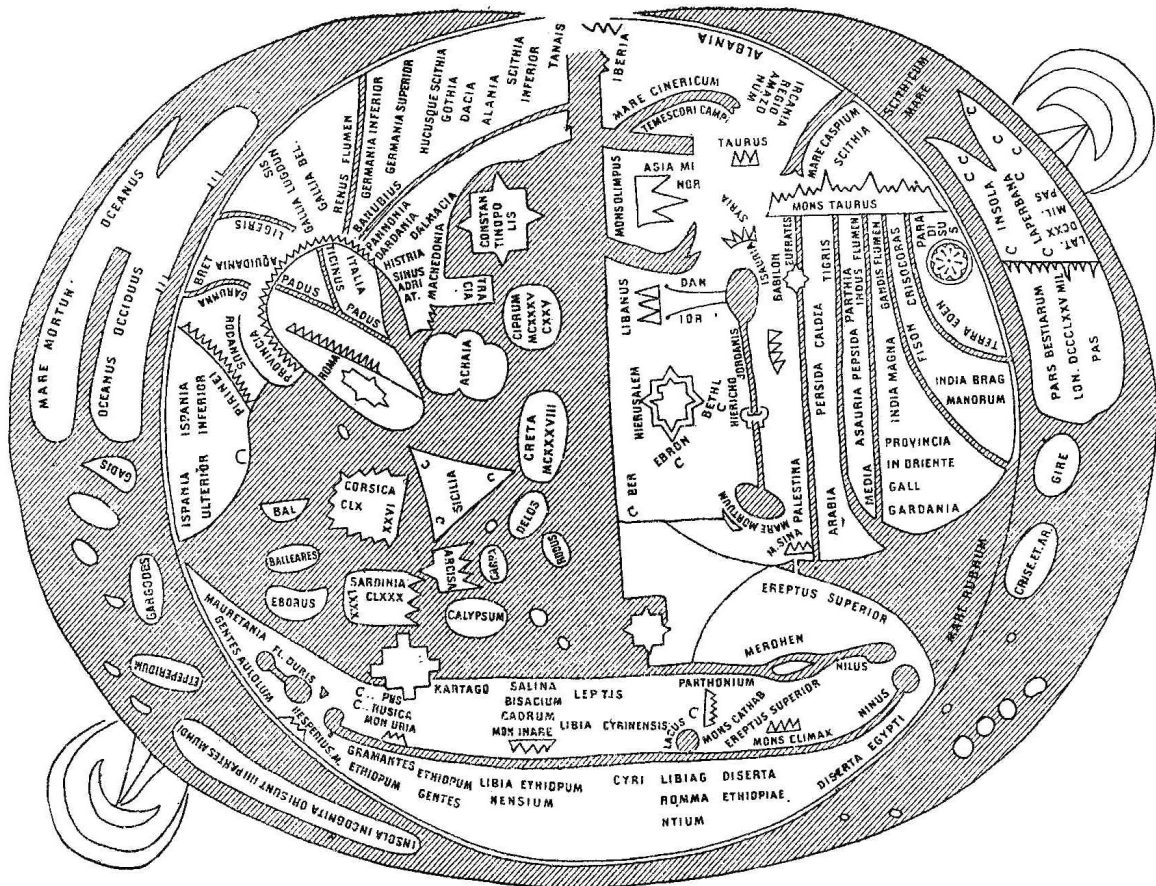
Ninth century T-O map from MS of Isidore's De natura rerum, 12.5 cm diameter (#205JJ)
Burgerbibliothek, Bern, Codex 417, fol. 88v, Bern



15th century Noahic T-O from Jean Mansel's
La fleur des histiores, 30 x 22 cm with Noah's sons Japhet, Shem and Ham (#205K)
Bibliothèque Royale Albert Ier, Brussels, MS. 9231, fol. 281v



The "Vatican T-O", an eighth century T-O map bound with Isidore's *Etymologiarum*, 21 x 14.5 cm. One of the oldest detailed world maps, placed with a group of computus materials. It shows the inhabited continents as a circle surrounded by the Ocean. To the southwest of Africa is the island which has been interpreted as a vestigial fourth continent. Paradise is represented by a rosette in the Far East. Two apparent islands in the northwest are both labeled with the names of seas: 'mare mortun' and 'oceanus occiduus' [dead sea, or sea of the dead, and western ocean]. Oriented with South at the top. *Biblioteca Apostolica Vaticana*, MS Lat. 6018, ff 63^v-64 (#205M)



The Pseudo Isidorean Vatican Map of the World

Although widely known from Konrad Miller as "Isidoran", it has been observed that this map is not directly associated with any text by Isidore, but merely bound into a codex containing a copy of the *Etymologiae* [from Menéndez Pidal] The *mappa mundi* shows the world oriented towards the south in the upper portion, in a circular shape and surrounded by an oval encircling ocean. It includes numerous geographic references, some 130 in fact, most of which are present in the geographic content of the *Seven Books of History Against the Pagans* by Orosius (ca. 383-ca. 420) and the *Etymologiae* of St Isidore (ca. 562-636). Also Jerusalem (*Hierusalem*), Babylon (*Bahibn*), Constantinople (*Constantinopolis*), Rome (*Roma*), Carthage (*Kartago*) and Alexandria (lacking a name), are highlighted by geometric symbols in the style of an eight-pointed star, stressing their importance compared with the rest of the toponymy. The Earthly Paradise (*Paradisus*) is represented by a rosette in *Terra Eden*.

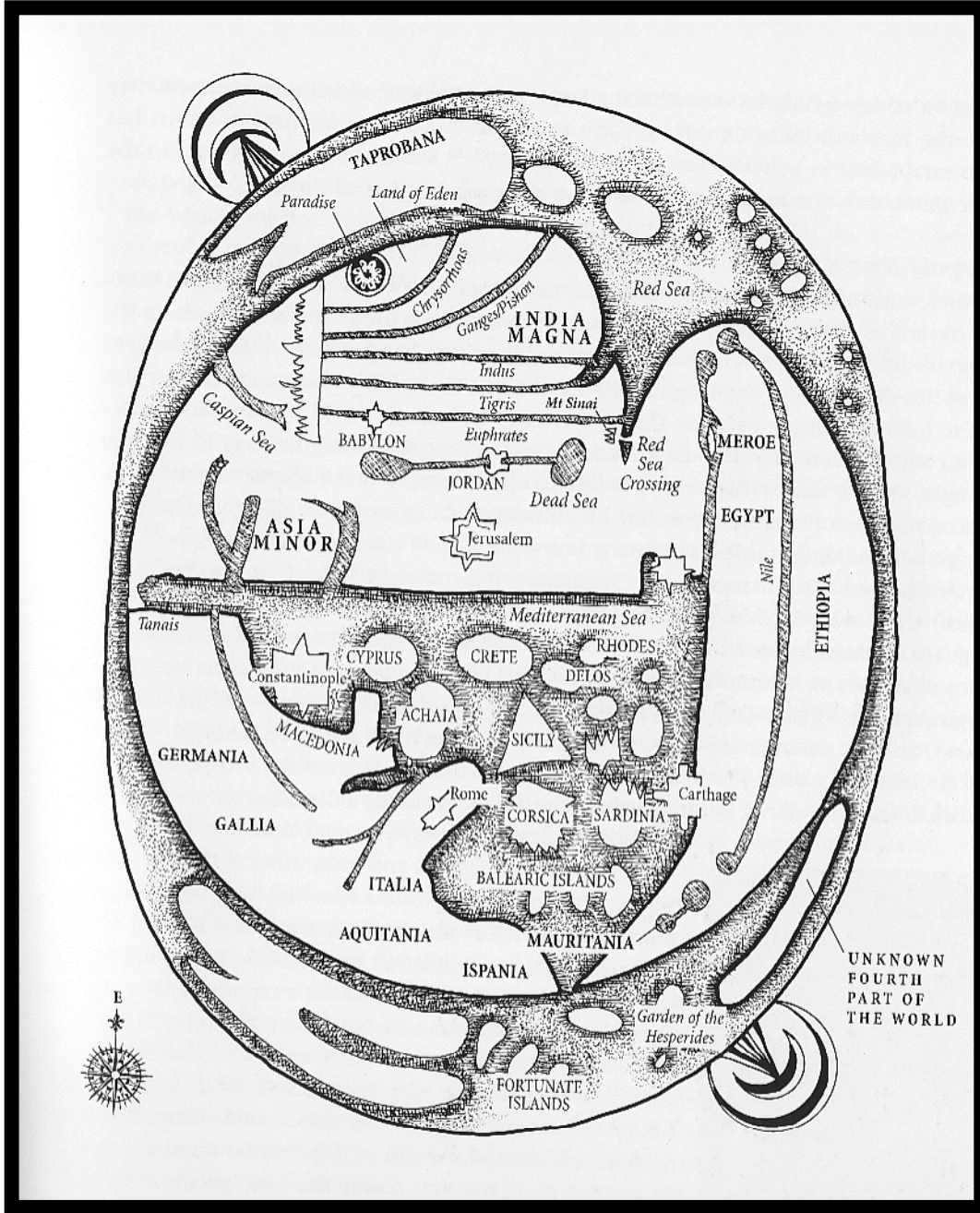
Although the damascene rosette motif is strange within the domain of mediaeval cartography, we find it repeatedly in various artistic works throughout Antiquity and

the Middle Ages. A legacy of the pagan world, the rosette was assimilated by Christianity, and, in reference to the Vatican map, we should point out its frequent use in Byzantine art, where it appears, for example, in the Ravenna sarcophagi of the Twelve Apostles (ca. 425-450) and that of Archbishop Theodore (ca. 475) in the basilica of Sant' Apollinare-in-Classo (Ravenna). According to Carl D. Shepherd, the rosette in Byzantine art is an evocation of Christian salvation and illustrates the garden of Eden, the fountain of life and the New Jerusalem, in other words, a variety of Christian motifs representing Paradise. The presence of the heavenly rosette in the Vatican map could be understood, then, as being an influence from Byzantine art; thus, let us not forget that if the Easter tables which follow upon the map are based on a Byzantine original, perhaps we might also find iconographic motifs in the map of the same provenance. We should point out that in the vicinity of the Earthly Paradise the River *Crisocoras* flows as well as the traditional rivers of Eden: the *Phison* (or *Gandis flumen*, i.e. "River Ganges"), *Indus flumen*, *Tigris* and *Eufates*. Other Christian elements are, for example, the parting of the Red Sea that alludes to the passage of the people of Israel to the Promised Land, and, in proximity to it, Mount Sinai (on which Moses received the Ten Commandments). Returning to the Red Sea, it is portrayed with small wavy lines that simulate water of the color suggested by its name.

The geographic design of the map is very far from the stylization of the Isidoran tripartite maps. One of the major differences hinges upon the large size of the Mediterranean Sea. In this sea we find many islands of various shapes, among which Sicilia stands out, due to its triangular shape, as it is described in the classical texts. Also, the River Nile does not appear as a frontier separating Asia and Africa (as we saw, for example, in the stylized T in O maps), but in a very characteristic form, possibly derived from the Orosian description in the *Seven Books of History Against the Pagans* (1,2, 28-33): it rises in a lake in western Africa and flows towards the east, appearing and disappearing in the desert sands, until it arrives close to the Red Sea; there to become submerged in the desert and reappearing, thenceforward steering itself towards the west, until it disgorges into the Mediterranean.

The crescents incorporated into the opposing corners (northeast and southwest) allude possibly to the movement of the sun, from dawn to sunset. Due to the memory they evoke of the solar symbols in certain zonal maps, we might assert that the model of the Vatican map, or one of them, might be a zonal map of this type, similar, say, to the *mappae mundi* of the manuscripts of the *Liber floridus* of Lambert of St Omer (#217, 11th to 12th centuries). Also it is important to note the elongated island in the southeast of the encircling ocean which has a caption saying *insola incognita ori[...] IIII partes mundi*, and which, although it has been analyzed and interpreted various times, is understood generally as being a landmass at the margins of the *oecumene* located towards the west, similar to die one shown in the *mappae mundi* of the *Liber floridus* of Lambert of St Omer, and also similar to the fourth part of the world in the maps of the Beatus codices (#207).

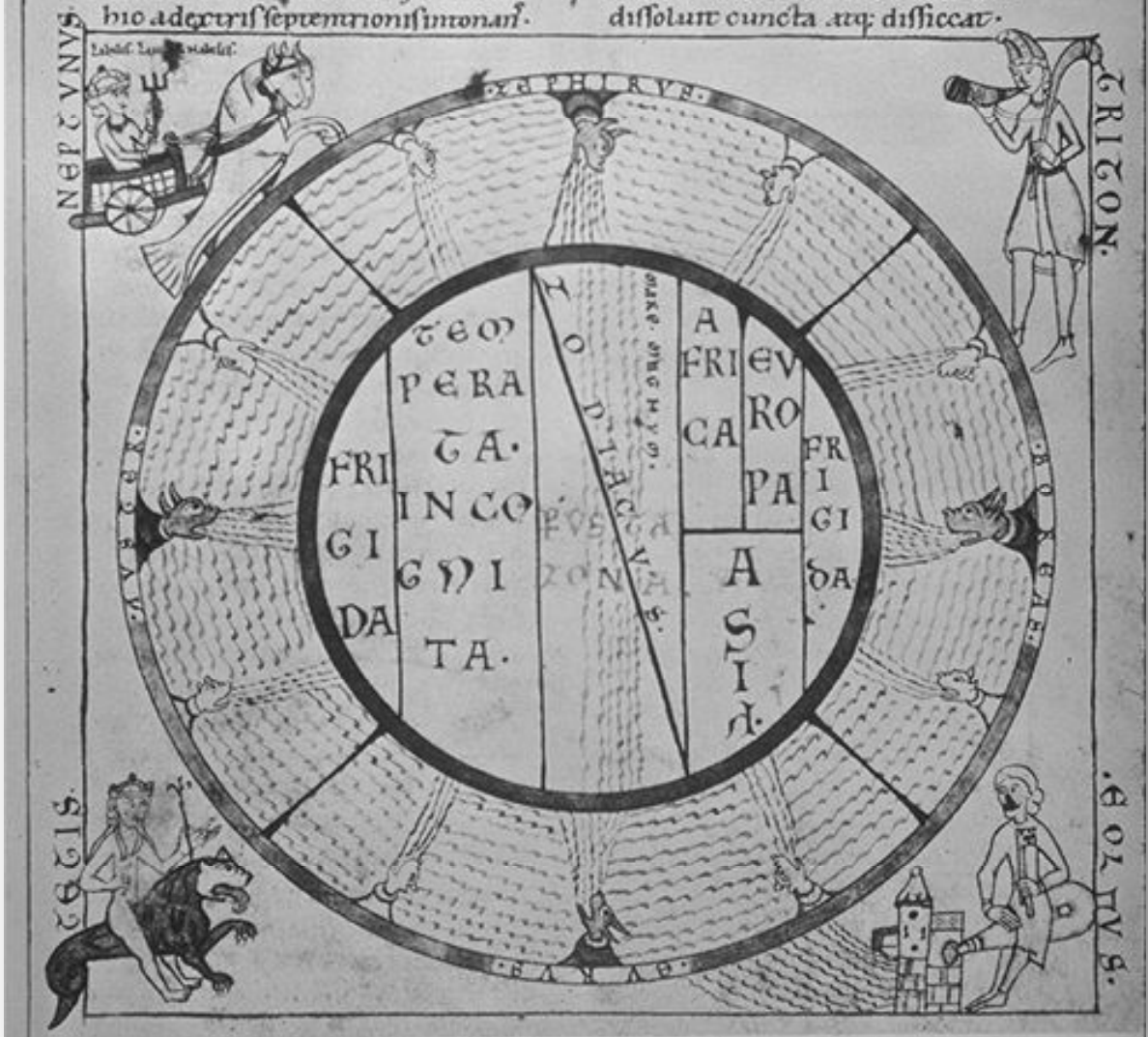
(#205M1)



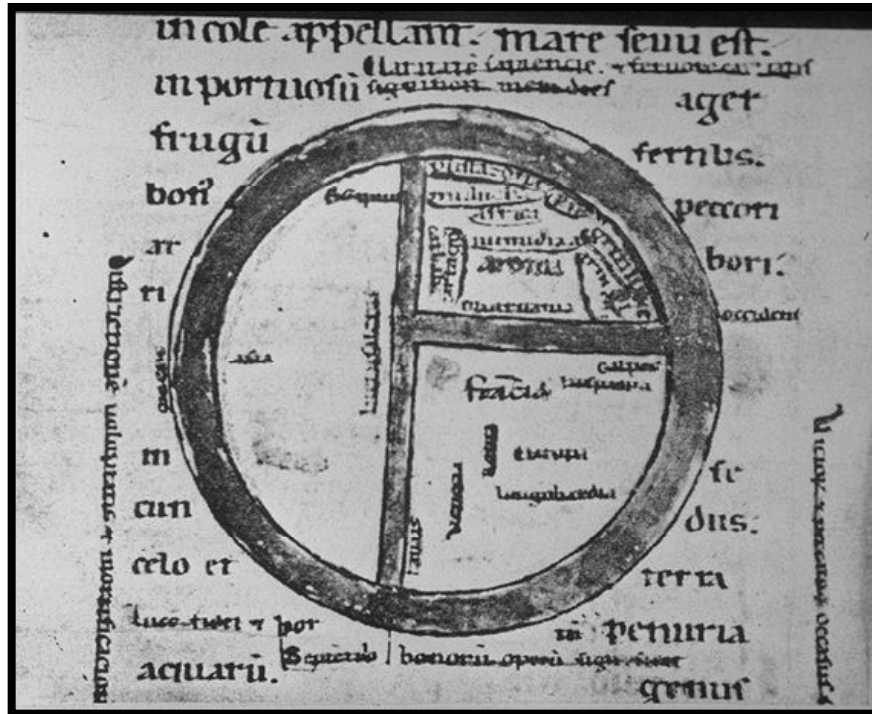
The Pseudo Isidorean Vatican Map of the World (#205M2)

ni generis panūsu mundū mittunt.
 terū nūquā uenti in centro es sps po
 m solent. pco qd male suggestionis
 flata ad terrena desideria iniquoꝝ
 corda succendunt. scdm qd scriptū
 ē. tollat eū uentus urens. de nomi
VENTORVM NIBS VENTORVM. Xli.
 pmi cardinalis septentrion frī
 gidus & nūalis. flā rect' ab axe. &
 facit arida frigora & siccas nubes.
 hic a parta dī. Cīrcius q̄a Trīcias.
 hīo ad ext'ris septentrionis imonant.

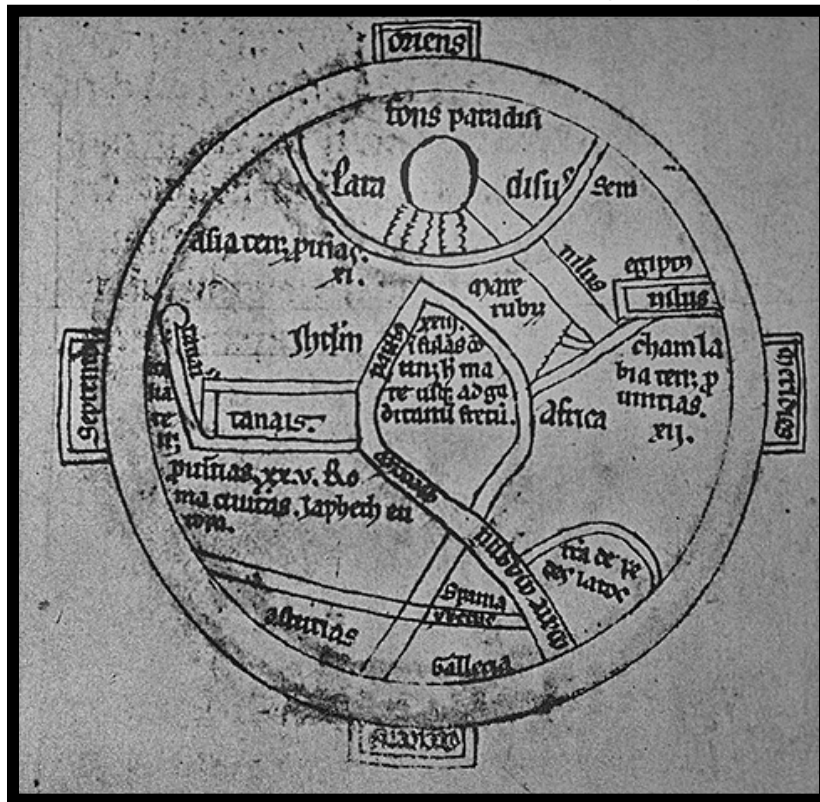
facit r̄hum & grandinū coagulatio
 nes. Aquilo. qui & boreus. ex alto
 flant. gelidus atq; siccus. & sine plu
 uia. q̄a n̄ distant nubes. b̄stringit.
 Unde & merito diaboli formā inducit.
 q̄ ab im̄gt. n̄s frigore genitaliū corda
 constringit. Sed s̄ uentū cardina
 lis. subsolanus. q̄a & a poltis. Hic ab
 ortu solis imonant. & ē temp' atq;
 desiccant. Uentus n̄s ipse q̄a & calti
 as uocat. dexterioꝝ subsolanus. hīo
 dissoluit cuncta atq; difficcant.



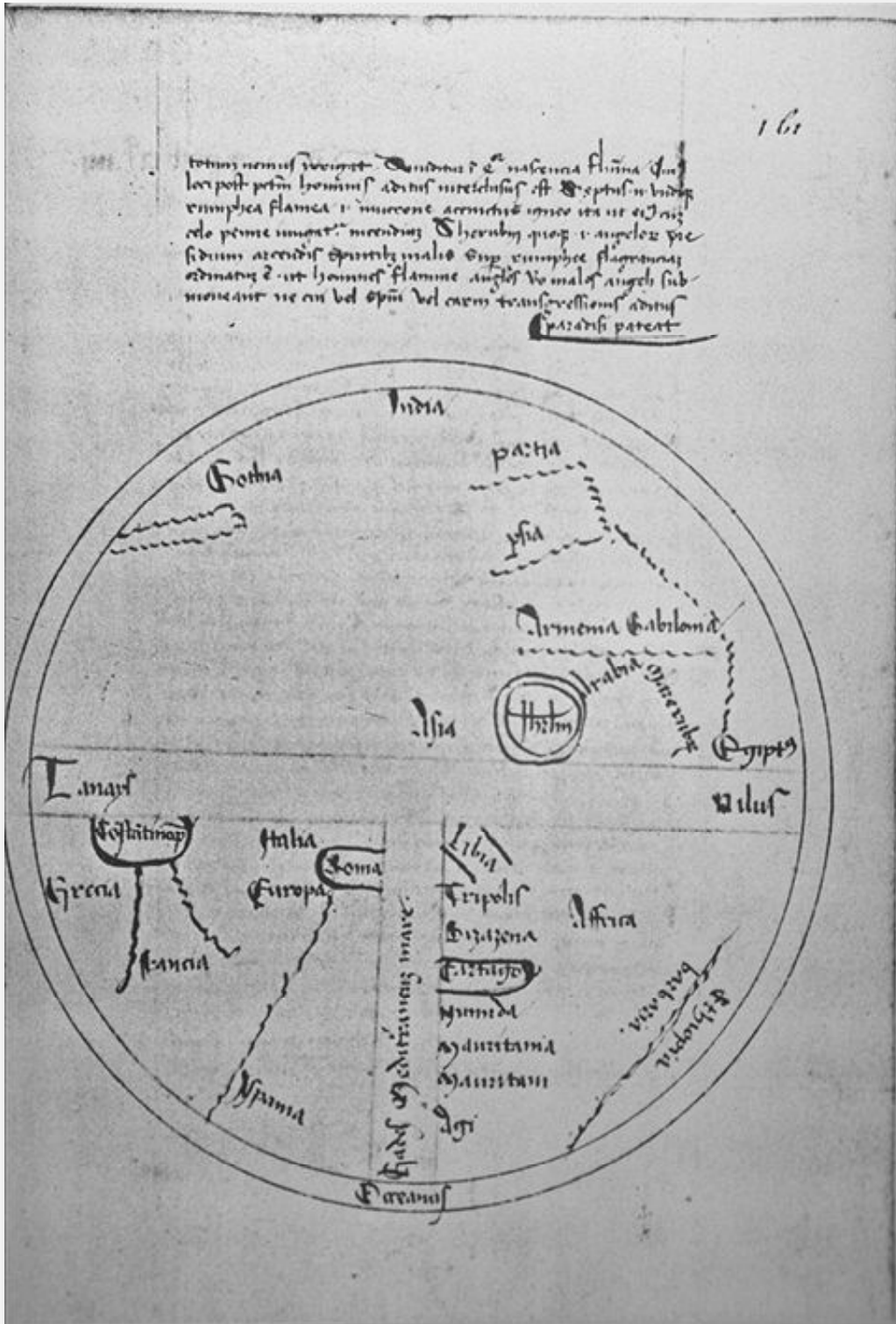
13th century map from Isidore of Seville's Etymologiarum, 18.5 x 18.5 cm (#205L)



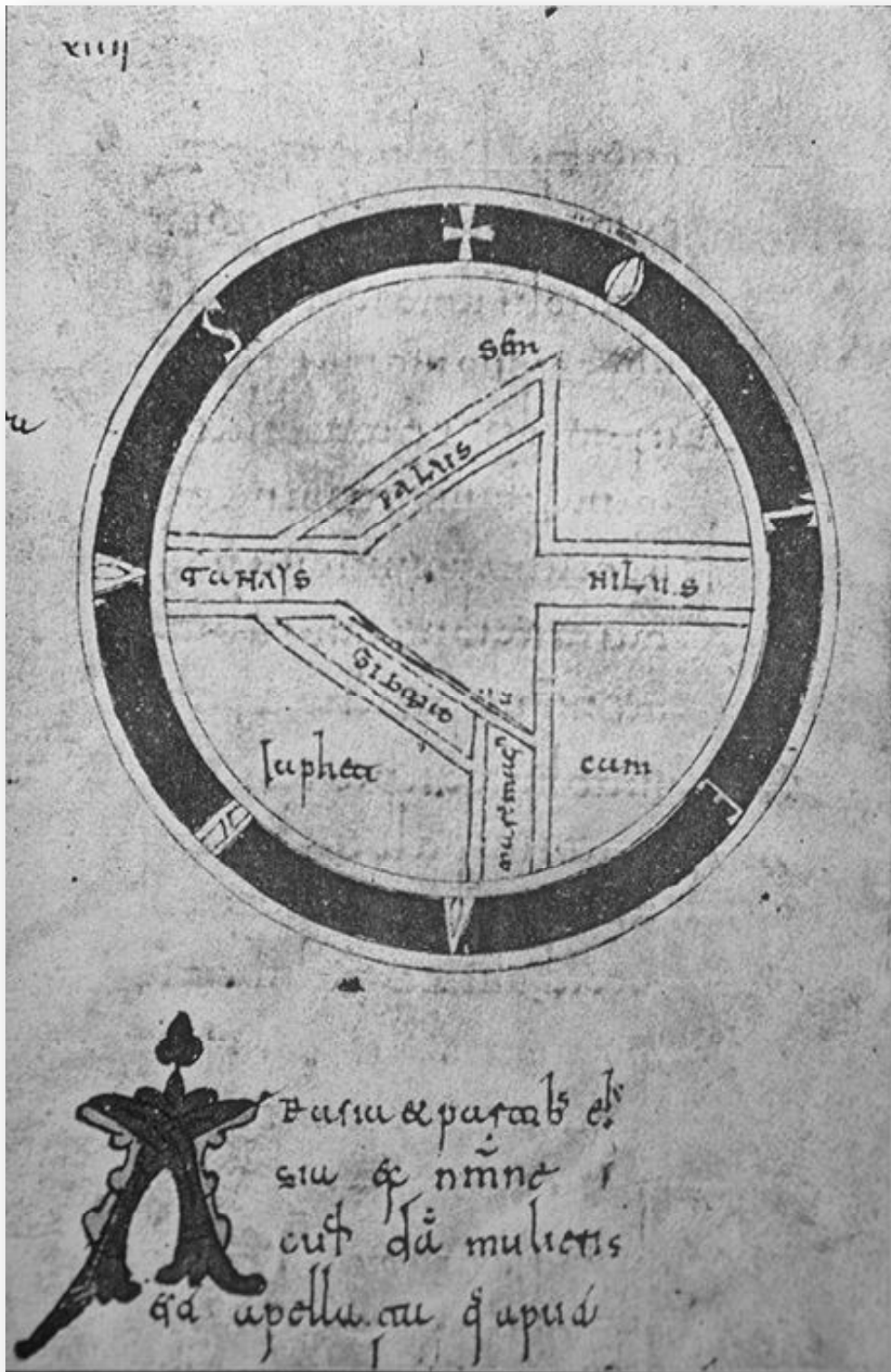
13th century T-O Sallust map, 4.3 cm diameter (#205O)
 Bibliotheque Nationale, Paris, MS Lat. 6088 Reg 5974, fol. 33v



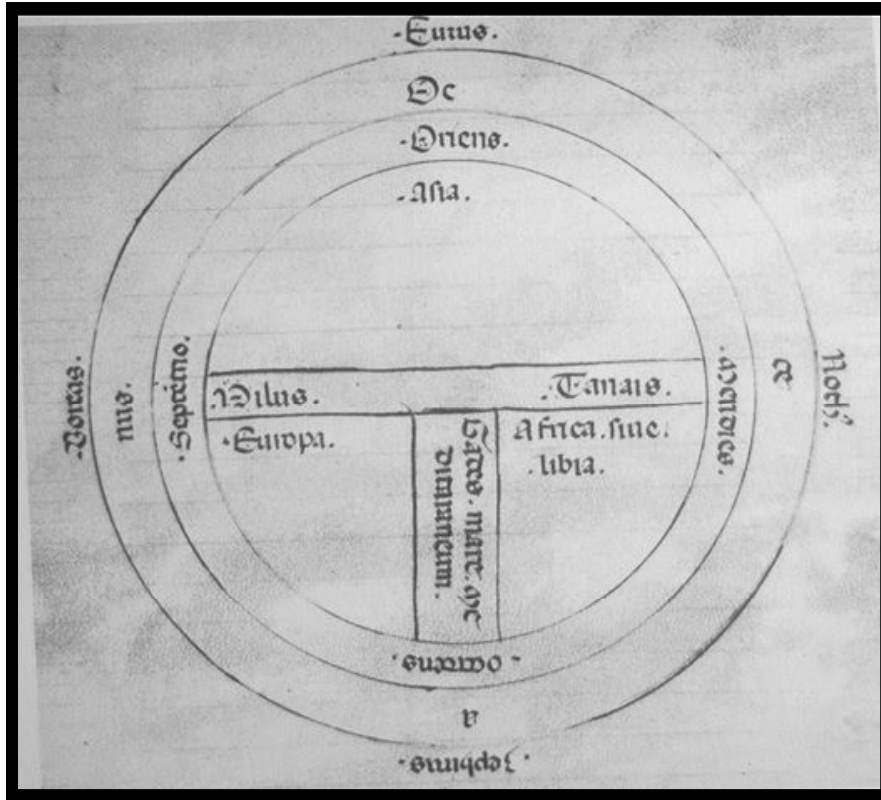
10th century T-O map from Isidore of Seville's Etymologiarum, 11.5 cm diameter (#205Q)
 Biblioteca Medicea Laurenziana, Florence, Plut. 27 sin. 8, fol. 64v



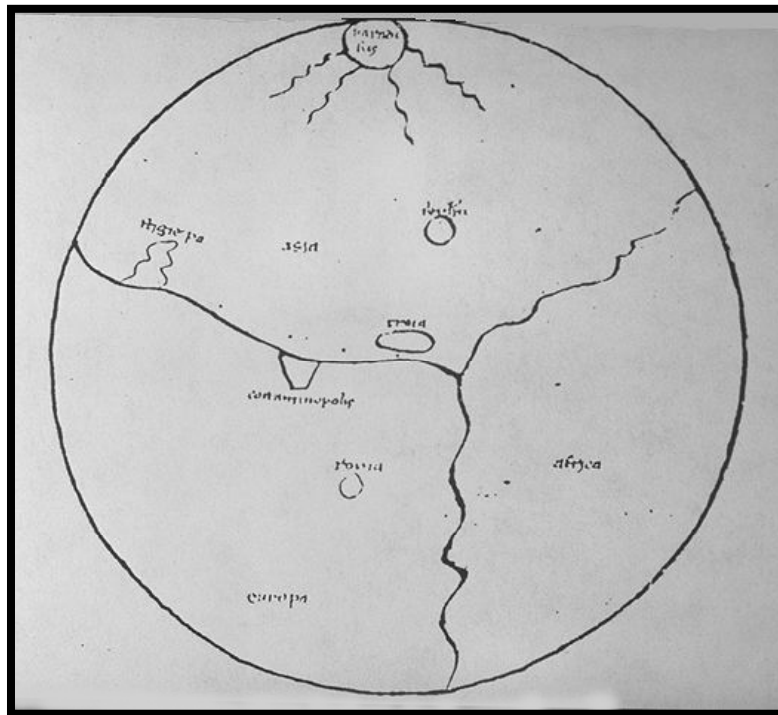
13th century T-O map from Isidore of Seville's Etymologiarum, 13 cm diameter (#205R)



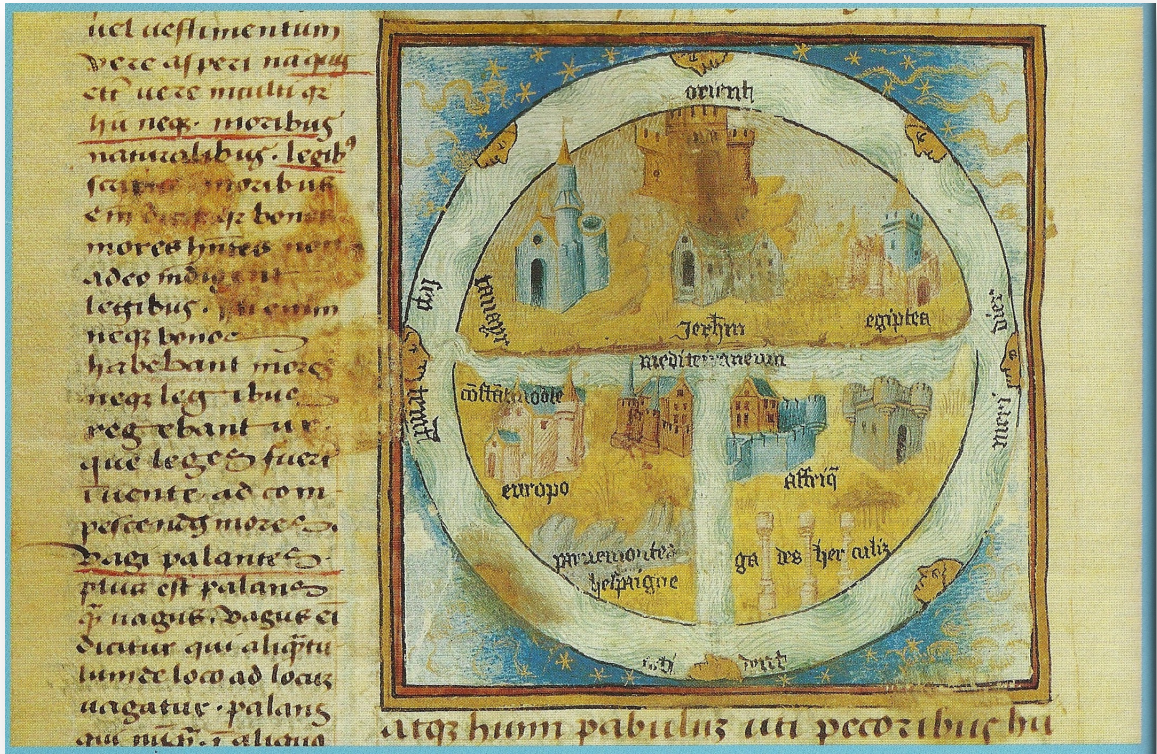
11th century Y-O map from Isidore of Seville's *Etymologiarum*, 10.8 cm diameter (#205S)



14th century T-O map from writings of Marcus Annaeus Lucanus, 13.8 cm diameter (#205U)



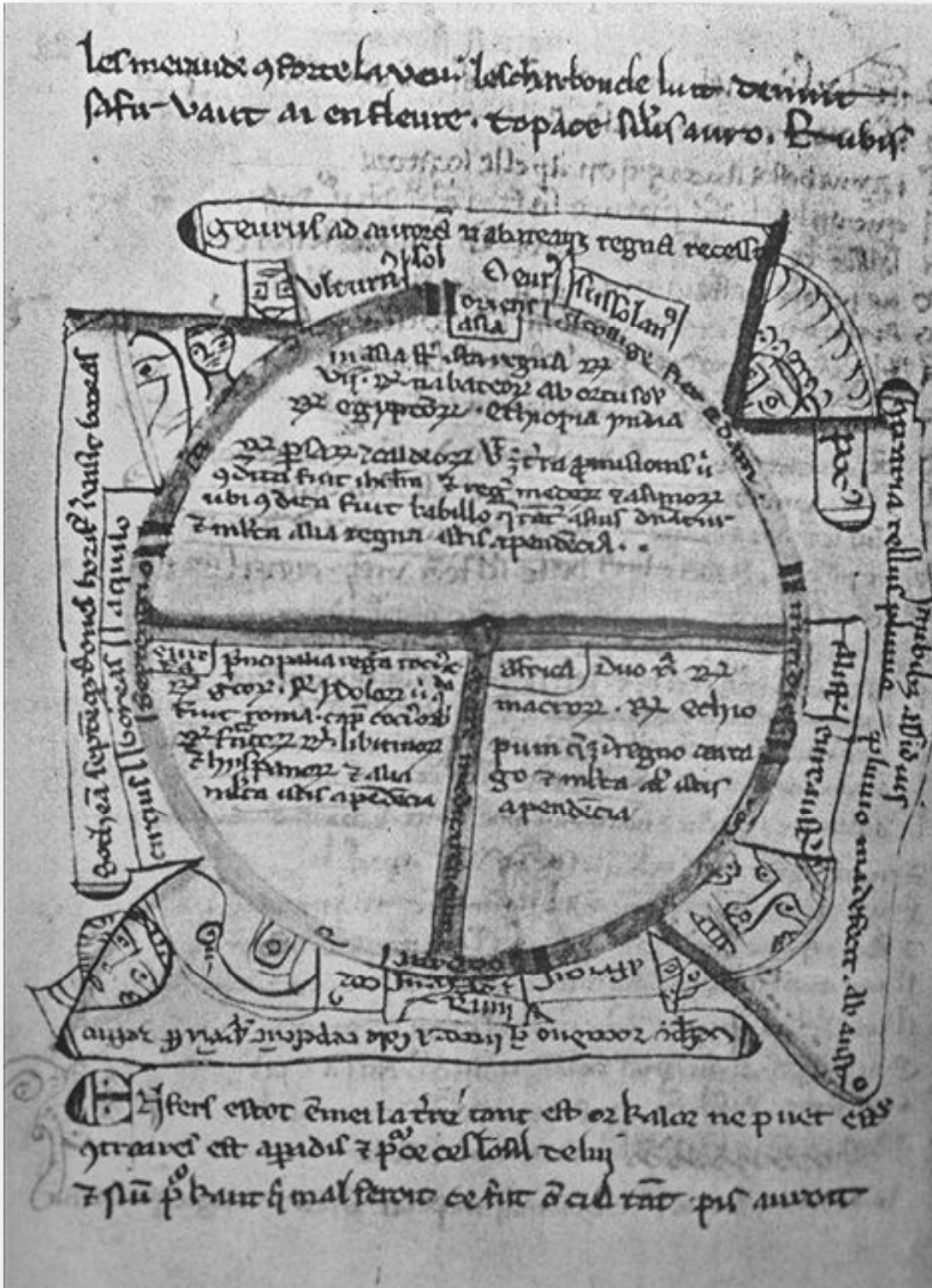
12th century Y-O map from Macrobius, 8.7 cm diameter (#205W)
Bibliothèque Nationale, Paris, MS. Lat. 16679, fol. 33v



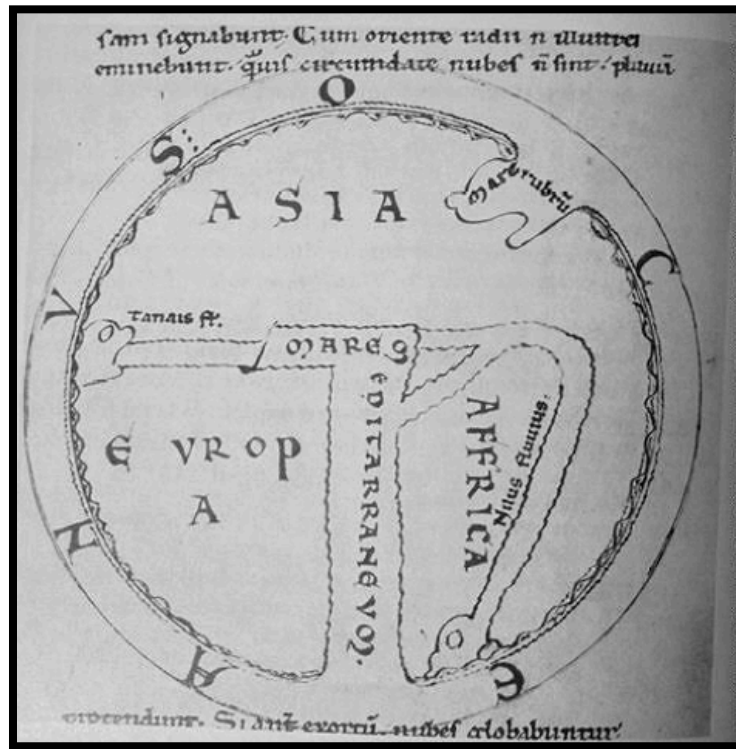
T-O map from Beinecke Rare Book & Manuscript Library, Yale University (#205ZZ34)



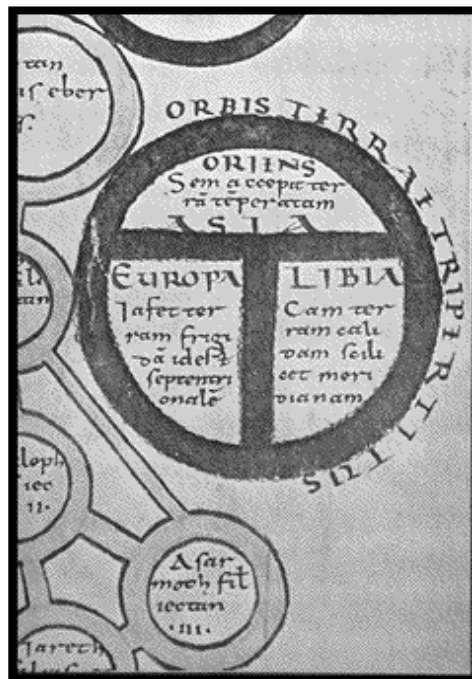
13th century T-O map, north orientation by Gautier de Chatillon, 10.4 cm diameter (#205V)



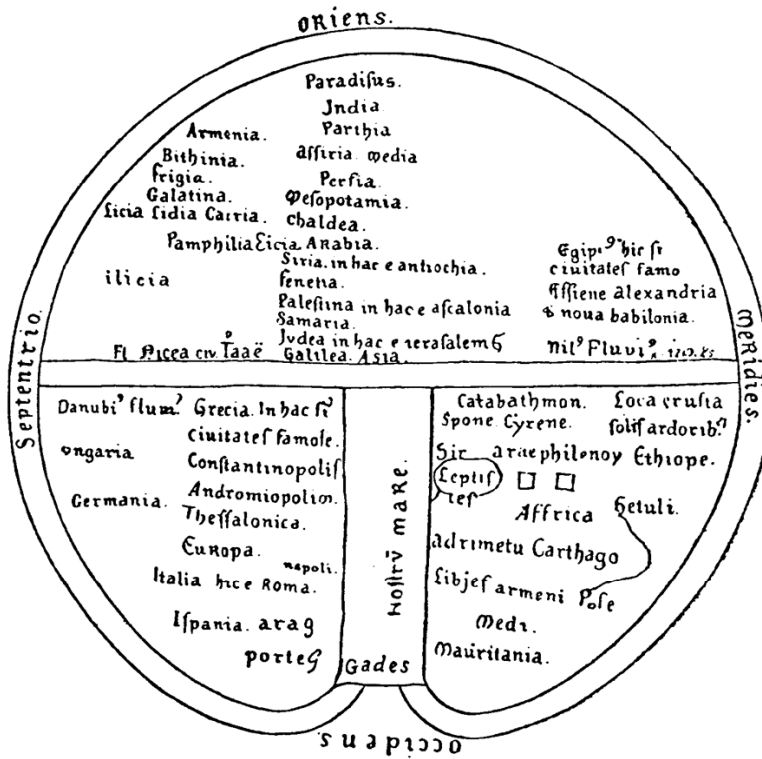
13th century T-O map from MS of L'Image du monde by Gautier de Metz, 3.6 cm diameter (#205X) Bibliotheque Municipale Verdun (lost)



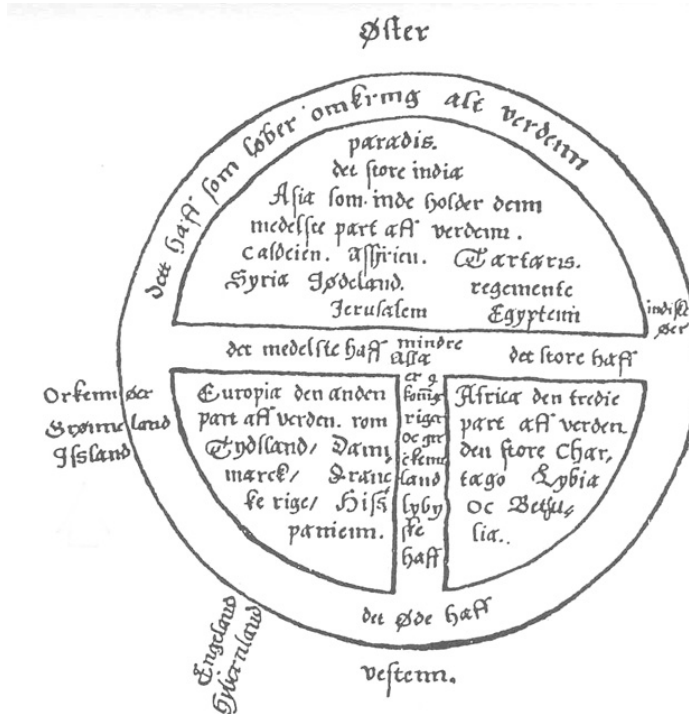
12th century T-O map from MS of Bede's *De natura rerum*, 8.1 cm diameter (#205Z)
 Bibliotheque Nationale, Paris, MS. Lat. 11130, fol. 82r



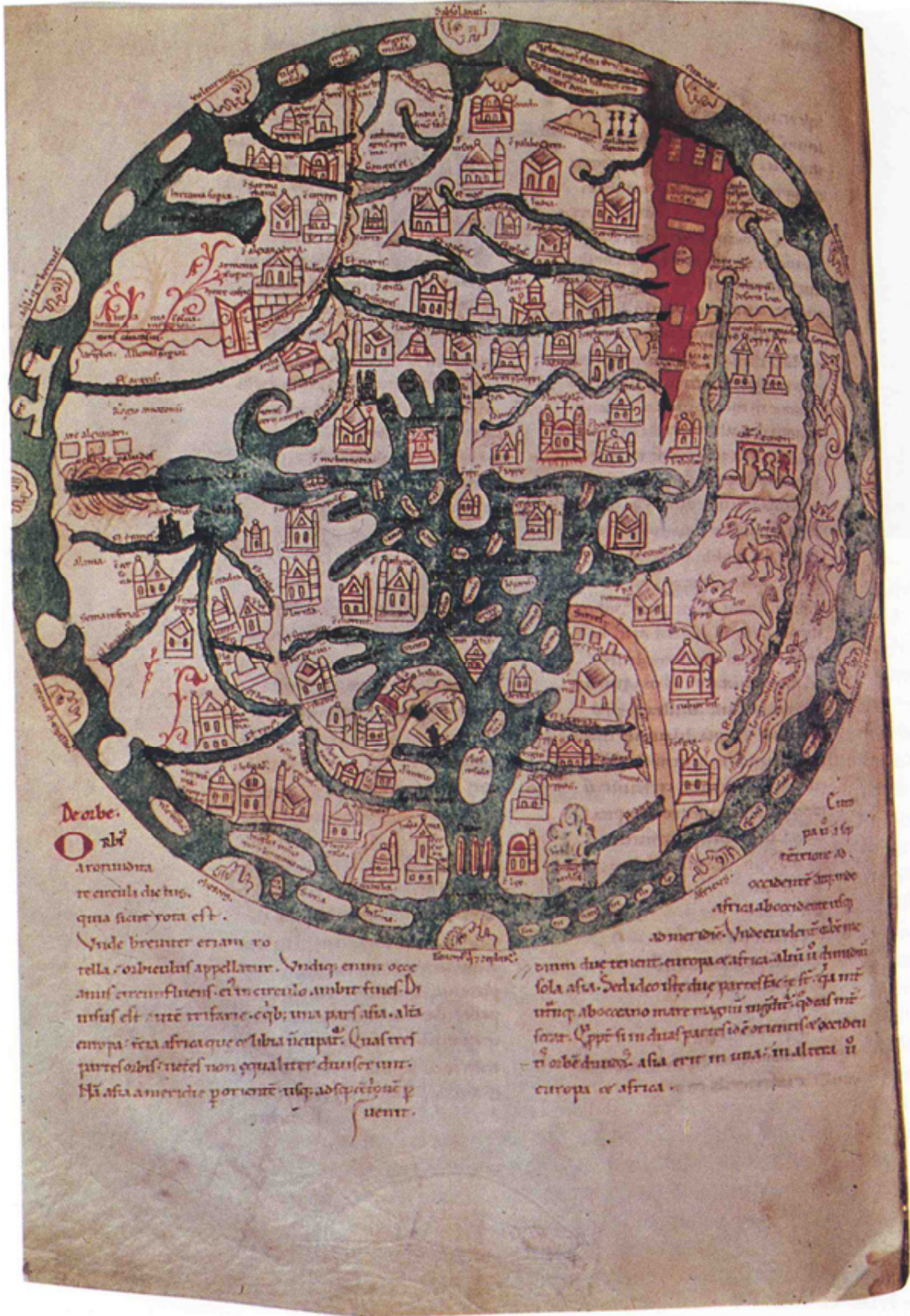
11th century T-O map from MS of *Commentary on the Apocalypse of Saint John (Beatus)*,
 4.7 cm diameter (#205Y) Bibliotheque Nationale, Paris, MS. Lat. 8878, fol. 7r



13th century T-O map (#205II) Deventer, Athenaeum Bibliotheek, MS I, 81 (old 1791), fol. 1R



13th century T-O map, the first to mention Greenland (lower left) #205XX



Isidore mappamundi, ca. 1130, 26 cm diameter (#205DD)
Bayerische Staatsbibliothek, Munich, Clm 10058, f. 154v

The much more elaborate map of the world shown above also belongs to the T-O category of maps, but has already evolved and contains much more information than the previous T-O maps. There are many copies of T-O maps in the various works of Isidore, Bishop of Seville which are mostly diagrammatic and simple, though a few others such as this reproduction from an 11th century manuscript copy, are more elaborate and contain mythical, as well as religious symbols and legends.

This map is also in the basic shape of the T-O maps, oriented with East at the top. The stem of the T in the map, occupying a large portion of the map area, is the Mediterranean Sea with twenty-two islands. Three of the islands include vignettes of buildings. Of these the triangular island in the West Mediterranean is the island of Sicily, the square island in the southeast is Crete and the smaller rectangular one in the east is Cyprus. The Red Sea, combined with the Arabian Sea, is represented as the large red wedge-shaped inlet at the top right of the map. The biblical parting of the Red Sea permitting the Israelites to pass through is also shown. The twelve principal winds are surrounding the globe around its external perimeter. The map is filled with vignettes of buildings and churches representing towns and religious centers, the largest one being Jerusalem, topped with a large cross.

Africa brims with drawings of wild beasts and towns, the most important of which is Alexandria situated between the two mouths of the Nile. There is a large three-arched building named *Castellum Alexandri* setting on the three-peaked mountain, bearing the legend *Mount Catabathmon*. This, according to Sallust is the area between Libya and the Egyptian city of *Seyene* [Aswan]. The city of *Carthago* is shown on a peninsula protruding from Africa towards Sicily. To the west of Carthage, between the two rivers the red-lined building vignette bears the legend of *Yppo* [Hippo, today's Annaba]. Further west, near the Atlantic ocean the green mass is *Mons Atlas* [the Atlas mountains], with the city of *Calpe* [Gibraltar] to its left.

In Europe the most important provinces and cities shown include Constantinople near the Black Sea, Athens near the eastern Mediterranean, Rome, shown as a castle with a river (the Tiber) flowing through *Hyspania* is the triangular domed tower near the straits of Gibraltar (with the "Pillars of Hercules") with *Cordoba* to its north, shown with the vignette of a round domed mosque and a minaret, separated from *Gallia* with a curving mountain range. In the northwest, floating in the surrounding ocean *Anglia Insula*, *Scotia* and *Hiberia* are also shown.

The detailed map with the superimposed numbers below relates to the region south of the Caucasus Mountains. *Albania Superior* (8) is shown south of the Caucasus Mountains (19). An important feature in the map is the vignette of a house sitting on two mountain peaks. The "house" bears the inscription *Archa Noe* (4., Noah's Ark) and the twin peaks are named *Ararat* (3). This is possibly the first time that the Ark and Mount Ararat are shown on a map pre-dating the Crusades. Below Mount Ararat the additional legend reads *Montes Armenia* (2. Mountains of Armenia), which are situated near the over *Euxis* (possibly Halys or Kizilirmak river) flowing from *Mons Taurus* (11. Taurus Mountains) towards the Black Sea (18). *Armenia Superior* (1. Greater Armenia) is located west of the Caspian, the green inlet connected to the ocean. Northwest of *Armenia Superior* are *Mons Caucasus* (10. Caucasus Range) with *Porte Caspie* (5. Caspian gates) at its southern end, the southeast extension of which is called *Acroceraunis* (according to Orosius these form part of the Caucasian Mountains and are called Mountains of Daghestan). The gates possibly denote the Daryal Pass, since they are located between the *Caucasus* and *Acroceraunis* ranges. Further down *Acrocerauni* joins *Mons Taurus* (11)

extending westward. At the junction of the three mountain ranges lies the source of the rivers *Tigris* (12) and *Euphrates* (13), which flow all the way to the Red/Arabian Sea, as well as that of the river *Araxis* (14. Arax), then flows north wards into the surrounding ocean. Important toponym shown in the detail map are the following:

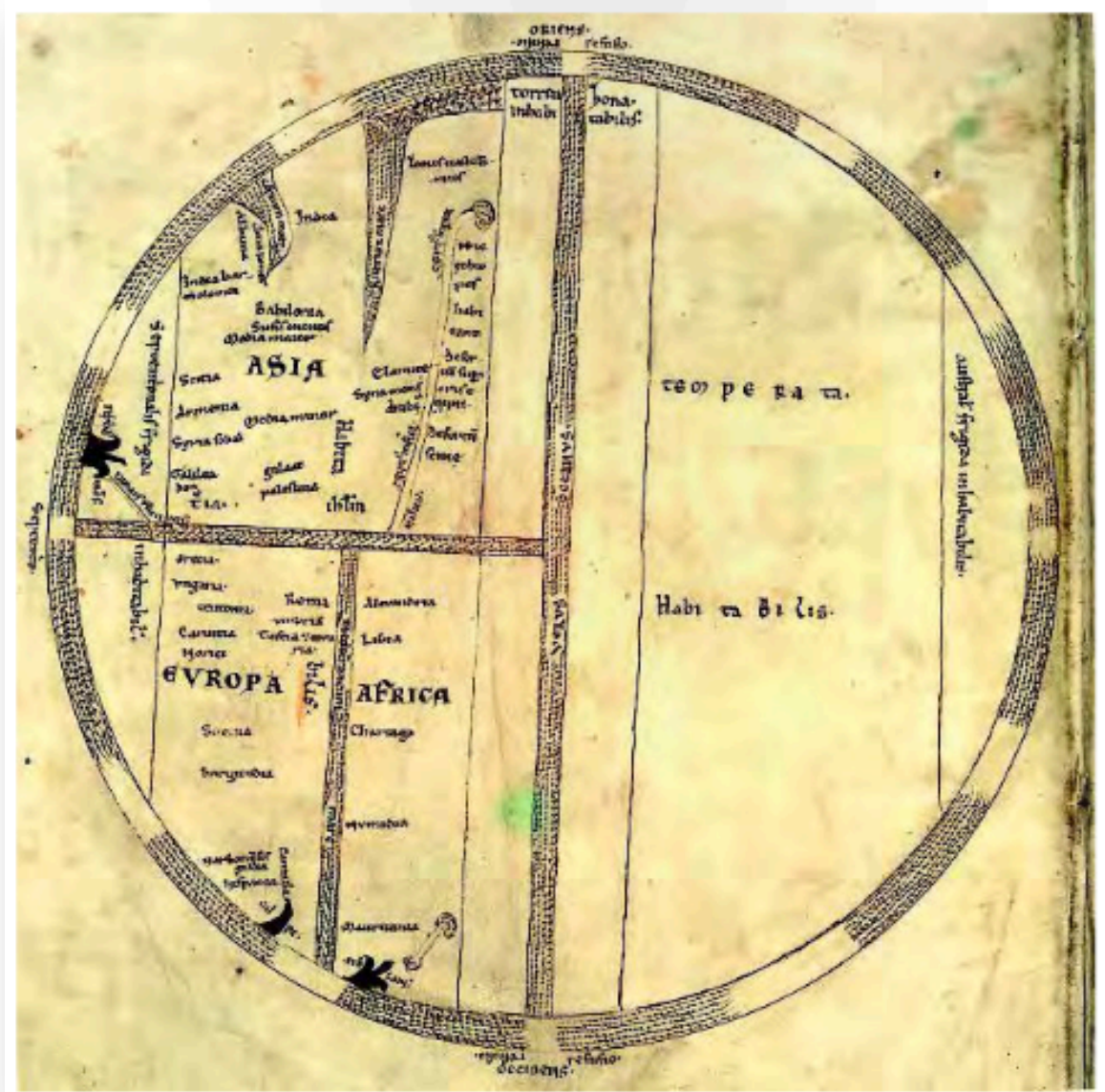
A - Countries of the region

1. *Armenia Superior* - Greater Armenia
2. *Monies Armenie* - Armenian mountains or the Armenian Chain.
3. *Ararat* - with twin peaks
4. *Archa Noe* or Noah's Ark - sitting on Mount Ararat
5. *Porte Caspie* - Caspian Gates in the shape of a door, the old name for the Daryal Gorge.
6. *Regjo amazonii* - or region inhabited by the Amazone women
7. *Hircania Superior*
8. *Albania Superior*
9. *Sarmatharia* or *Sarmatia* (Russia)

B- Mountains, Rivers and Seas

10. *Mons Caucasus* - Caucasus Mountains
11. *Mons Taurus* -Taurus Mountains
12. River -Tigris
13. River - Euphrates
14. River -Araxis
15. River Ganges
16. River -Indus
17. *Meotide paludes* - Azov Marshes
18. The Back Sea
19. *Mons Acrocerauni* - Part of the Caucasian Mountains that divides Iberia from Armenia, Daghestan Mountains
20. *Mare Caspiu* - the Caspian Sea
21. The Mediterranean Sea





The map shown above is from another copy of Isidore's *Etymologiae*, which dates from the 13th century and is kept in the Library of Heidelberg University (MS Salem IX 39, fol. 1v, 21 cm diameter). The map is unusual in that it is a mixture of Macrobian (#201) zonal and T-O maps, while its layout is more akin to those of Beatus maps (#207).

The map is oriented with east at the top but also has the five Macrobian zonal divisions, which are normally shown on north oriented maps, therefore here the zones, instead of being horizontal, are shown as vertical divisions. They are named as:

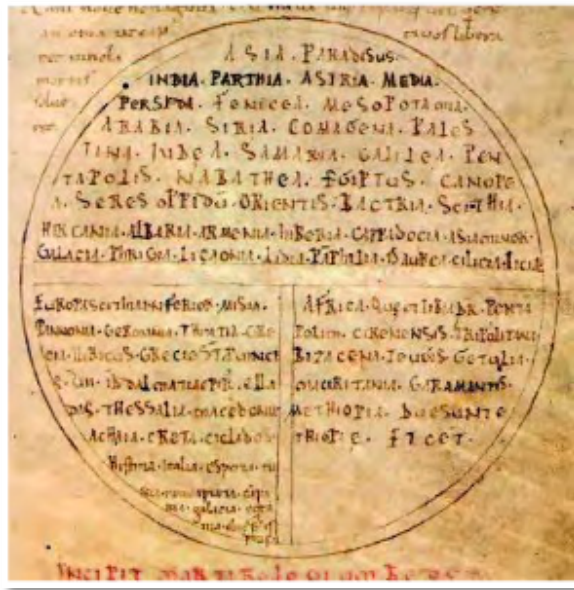
1. *Septentrionalis frigidus inhabitabilis*
2. *Habitabilis* (Northern Temperate Zone)
3. *Torridus* (Tropical Zone)
4. *Temperata habitabilis* (Southern Temperate Zone)

The earth is surrounded by a wavy ocean, which has a few inlets in the northeastern and eastern parts, bearing the legends of *Caspium Mare* and *Rubrum Mare* [the Caspian and Red Seas]. The central body of water shown in the Equator, which lies in the middle of the Torrid Zone, is considered as part of the surrounding ocean. The inhabited part of the world is shown to be the Northern Temperate Zone, which itself is depicted as a full T-O type map. In this climatic region the vertical stem of the "T" represents the *Mediterraneum Mare*, but the top bar wings do not represent the rivers *Tanais* [Don] and *Nilus*, but rather the extensions of the Mediterranean Sea into which these two rivers flow. The *Tanais* is shown rising from the mountains of *Ripheimontes* in the north and flowing into the left part of the northern arm of the T, while the *Nilus* rises from a lake in *Egyptus Superior*, flowing northwest into the southern arm of the T.

Some mountains located near the outer coasts are marked dark brown and are named *Ripheimontes* in the northern Frigid Zone. *Calpe* (the Rock of Gibraltar) north of the junction of the Mediterranean and the Atlantic, and *Athans* [Atlas Mountains] in Africa, to the south of the Straits of Gibraltar. Above the Atlas Mountains, inside Mauritania, there is a short and unnamed river.

In northern Asia the legends specify the countries and provinces of *India*, *Albania* and *Amazones*, with *Scitia*, *Armenia*, *Syria*, *Galilea*, *Dan* and *T[r]oia*. To the south lie the provinces of *Babilonia*, *Susis civets* [Suza, capital of Persia], *Media Maior*, *Galilea* and *Palestina*. The city of Jerusalem is shown with larger lettering situated in the center of the inhabited world as *Ihlm* (*Iherusalem*). In southern Asia the legends on one bank of the Nile indicate provinces and peoples of *Egyptus Superior* and *Inferior*, *Elamite*, *Syna mons* [Mount Sinai], *Arabia* and on the opposite bank, *Hic Ethiopes tabitant* [there live the Ethiopians]. *Desertus superior Egiptus* and *Desertus Sertie*.

Europe has sixteen toponyms, including *Ungaria*, *Teutonia*, *Roma*, *Tuscia* [Tuscany], *Gallia*, *Hyspania* and others. The British Isles are not mentioned. Africa merits only six toponyms and the Southern Temperate Zone is devoid of any legends, except the name of the zone, since it was separated from mankind by the unbearably hot Central Torrid Zone, was inaccessible to mankind and remained a mystery to us.



T-O world map in Bede's *De Temporibus Liber*, 11th century,
Bodleian Library, Oxford, MS Canon Misc. 560, f.3r, 10 cm diameter

Venerable Bede. A historian and Doctor the Church, Bede was born around 672 and from an early age was placed in the monastery of Wearmouth in Northumberland, England, where he was trained by the abbots. According to his own words, he spent his life there studying the Scriptures and other works the Venerable Fathers and compiling manuscripts of his own. He died there in 735 and was posthumously referred to as "The Venerable Bede". Bede today is chiefly known for his scientific, historical and theological writings. His *Historia ecclesiastica gentis Anglorum* is the English history from the time of Caesar to his day (the year 731), which laid the foundation of British historic writing. His other chronological treatises *De Temporibus Liber* and *De Temporibus Ratione* also contain general historical and geographical data. His most famous work is *De Natura Rerum* or *On the nature of things*, which was generally accompanied by a T-O type map of the world. Unsurprisingly, Bede's maps are loosely based on the model of his predecessors.

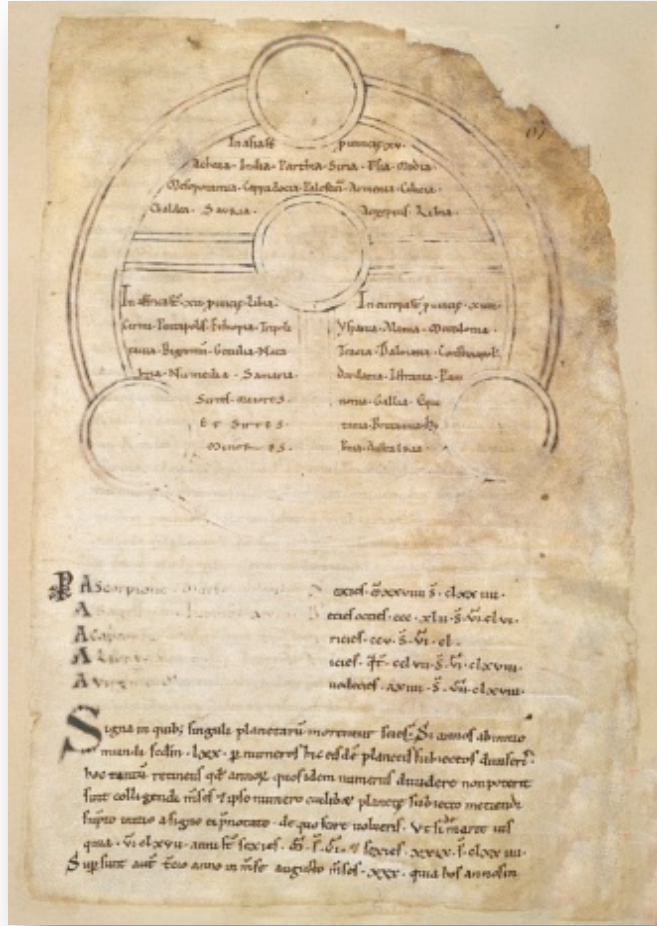
Bede's manuscripts were utilized for teaching and were in use for many hundreds of years. During the 15th century some of his works were translated into Armenian (MS. 2037, dated 1421, Matenadaran, Yerevan).

This simple T-O map is from a manuscript of Bede's *De Temporibus Ratione*, copied during the 11th century. The map is oriented with East at the top and the three continents are filled with the names of their countries. The map does not contain any topographic features. Africa contains 13 names. In Europe many Greek provinces and islands as well as a few Western European countries are named.

The legend of *Paradise* is shown to be at the easternmost (top) part of Asia, and the names of 36 Asian countries and provinces are listed in the legend below. They begin with *India, Parthia, Asiria, Media, Persida, Fenicia, Mesopotamia, Arabia* etc. and in the penultimate line the names of *Hircania, Albania, Armenia, Hiberia [Iberia], Capadocio, Asia Minor* are listed. The map contains no other features at all. In the rubric under the map Bede is mentioned as its author.

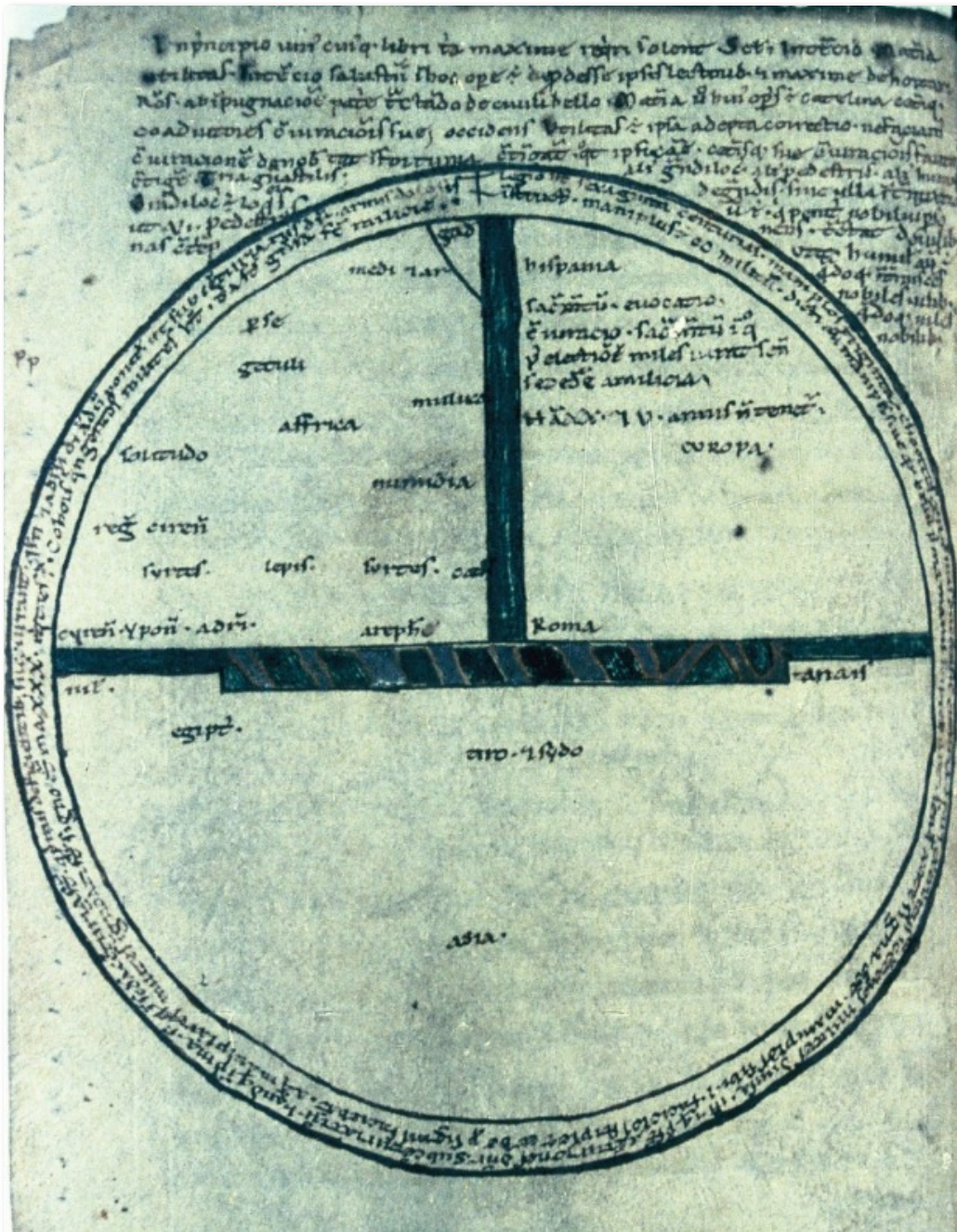


Basic schematic T-O mappamundi within seven circles of the universe, surrounded by four horned angels, each holding a trumpet in MS. on vellum: Bede, De natura rerum, 1055-1074, 13.5 cm diameter (universe, 2.5 cm (T-O map), Oxford University, MS Canon. Misc. 560, fol. 23r.



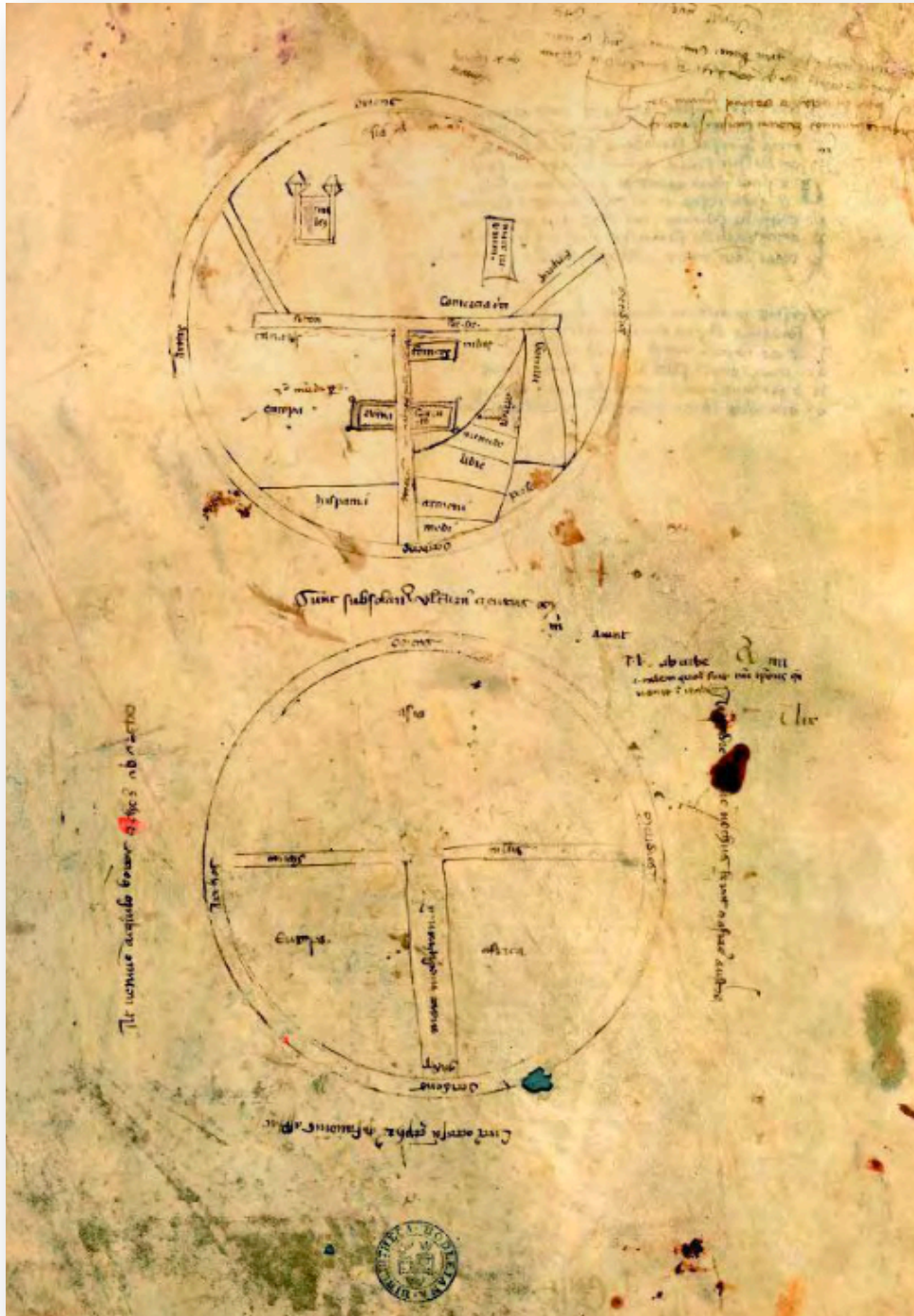
10th century T-O List Map, 11 cm diameter, note that Africa and Europe are reversed (#205HH) British Library, BL Cotton MS Vitellius A.XII. fol. 63v-64r





An 11th century Flemish (St. Pierre, Ghent) Sallust map, oriented with West at the top, 11 cm diameter.

This map has a great deal of detail in Africa, as it was designed to illustrate Sallust's history of Jugurtha's revolt against Rome. In the accompanying Flemish manuscript, as is common, the Jugurthine War is bound with Sallust's account of the conspiracy of Catiline. What is less common is that the map appears in the Catiline section rather than in the Jugurtha text. A teacher's notes on the details of Roman military organization, taken from Cincius, *On Military Science*, appear on the rim of the map. 11th century, 11 cm diameter, Oxford University, MS. Rawl. G. 44, fol. 17v (#205QQ)



14th century Sallust (top) & Lucan (bottom) Maps.

This simple sketch is typical of Lucan-type T-O maps in that it presents only the four cardinal directions, the three continents, and the features that divide them, including 'gad', or Cadiz. The text alongside describes the winds. This map is drawn on the last page of a heavily annotated manuscript below another, Sallust-type map. Map with truncated Nile and Don, in North Italian manuscript of Lucan, *Pharsalia*. Ca. 1350-1388; 8.3 cm diameter (each). Oxford University, MS. Lat. class. d. 14, fol. 137v (#205Z8)

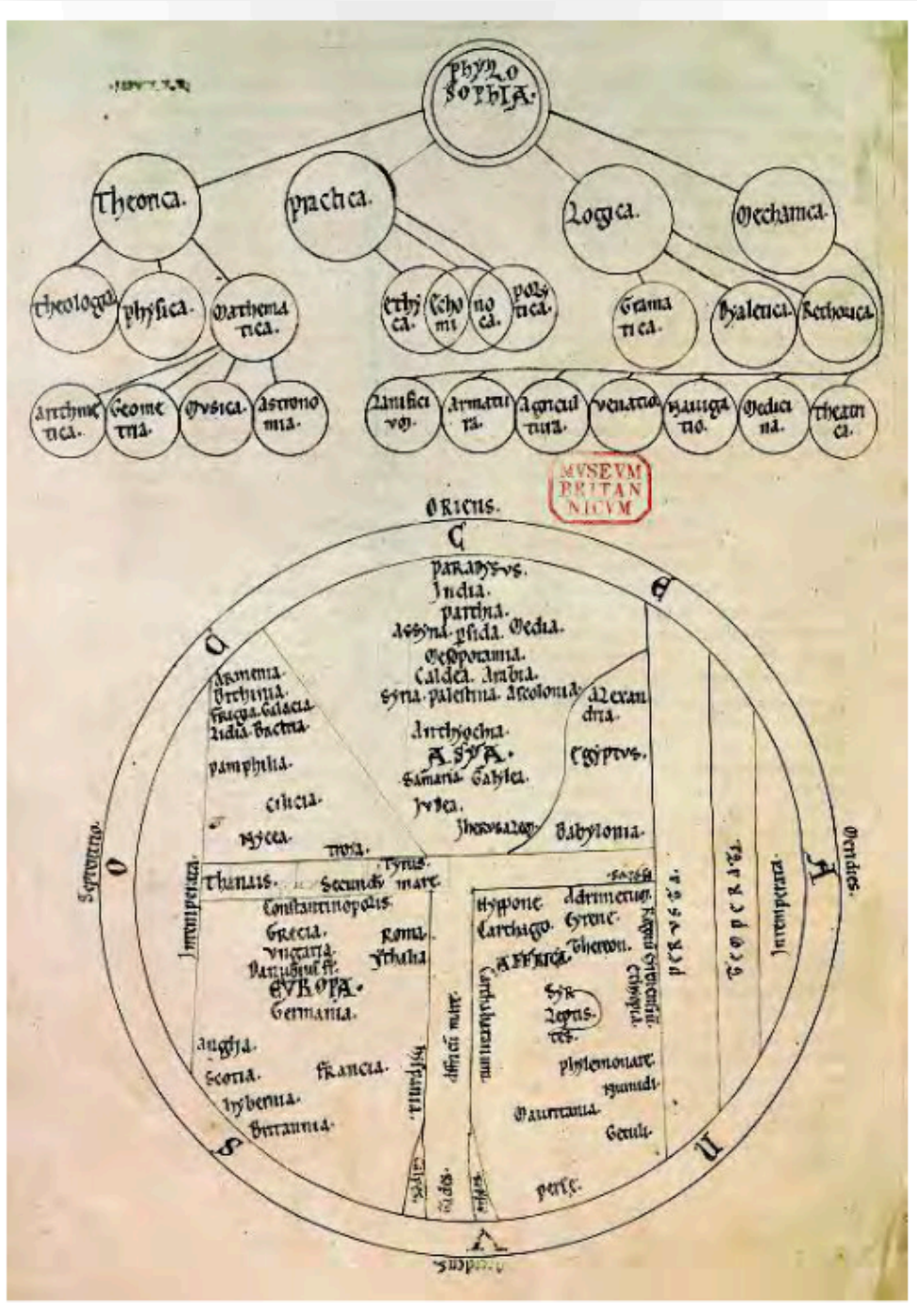
This page is from Lucan's manuscript of *Pharsalia*, which describes the fight between Pompeii and Caesar. Lucan lived during the first century and like Sallust, was of the opinion that Asia was the greatest continent of all and that Europe and Africa should be considered together as one continent. The original of the text of Lucan's *Pharsalia* (or, "Civil War", as many scholars call it) was written in 61-65 CE, approximately a century after the events it chronicles. The page is from a 14th century copy of the original work.

The copy of the manuscript includes maps. One is a T-O map shown on top of the page, which is a typical Sallust map oriented with east at the top and showing the *Mediterraneu*, *Tanais* and *Nilus*. The last two legends appear under the arms of the T while inside the body of water the legends at the left read *Fison* [Ganges] and *Fir-fir*. There are two rivers emerging from the *Tanais* is and the Nile, connecting them to the surrounding ocean in a slanted path. Above the left arm is a vignette of a castellated city, representing *Jerusalem* (somewhat rubbed). The other arm bears the legend *Egiptus*, near which appears the rectangular shape of *Mare Rubrum* [Red Sea]. At the very top (east) the legends read *Asia* and *India (?) Maior*. Inside Europe there are only a few legends, the important ones being *Europa*, *Hispania* and *Roma*.

On the African side, which has the most legends and is even divided into various countries and provinces, opposite *Roma* we see *Cartago* and to its east the legend inside the rectangle reads *Fenicies* [Phoenicia]. To the west of Carthage (downward) appear the names of the tribes inhabiting the area. These are the *Numidi*, *Libie*, *Armeni* and *Medi* (Numidians, Libians, Armenians and Medes), with *Perse* [Persians] further to the south, each shown with linear borders. According to Sallust these were the tribes, which form the ancestral line of the present day North Africans.

Looking at the map it seems that some of the legends are later additions, such as *Mare Mediterraneu*, *Tanais* and *Nilus*, which the scribe may have added in order to rectify some of the apparent errors.

The map shown at the bottom is a simple Lucan map, which mentions only the three continents with the rivers and sea separating them (*Tanais*, *Nilus* and *Mare Mediterraneu*). We also see the island of *Gades* (port city of Cadiz in mainland Spain) at the western edge of the Mediterranean.



12th century German Arnstein Bible Map, 27 cm diameter

Similar to the St. John's College Map, the map in this German Bible is arranged in an abstract fashion, but it is more geographically accurate and is superimposed on a zonal format. East and Asia are at the top as usual, with Europe to the left and Africa to the right. "Oceanus" is written in the outer rim. Above the map is a diagram of the structure of knowledge or philosophy, divided into the theoretical, practical and mechanical branches. British Library, BL MS Harl. 2799, fol. 241v (#205SS)

Another T-O type map dating from the year 1120 is shown above. This untitled map is bound to the end of the Bible known as the *Arnsteln Bible*, kept in the British Library. It is accompanied by some other sketches, none of which contain any associated text in the Bible that houses them. The map seems to have been prepared in Germany and above it there is a diagram showing the four branches and sub-branches of philosophical knowledge, though also have no connection with the map.

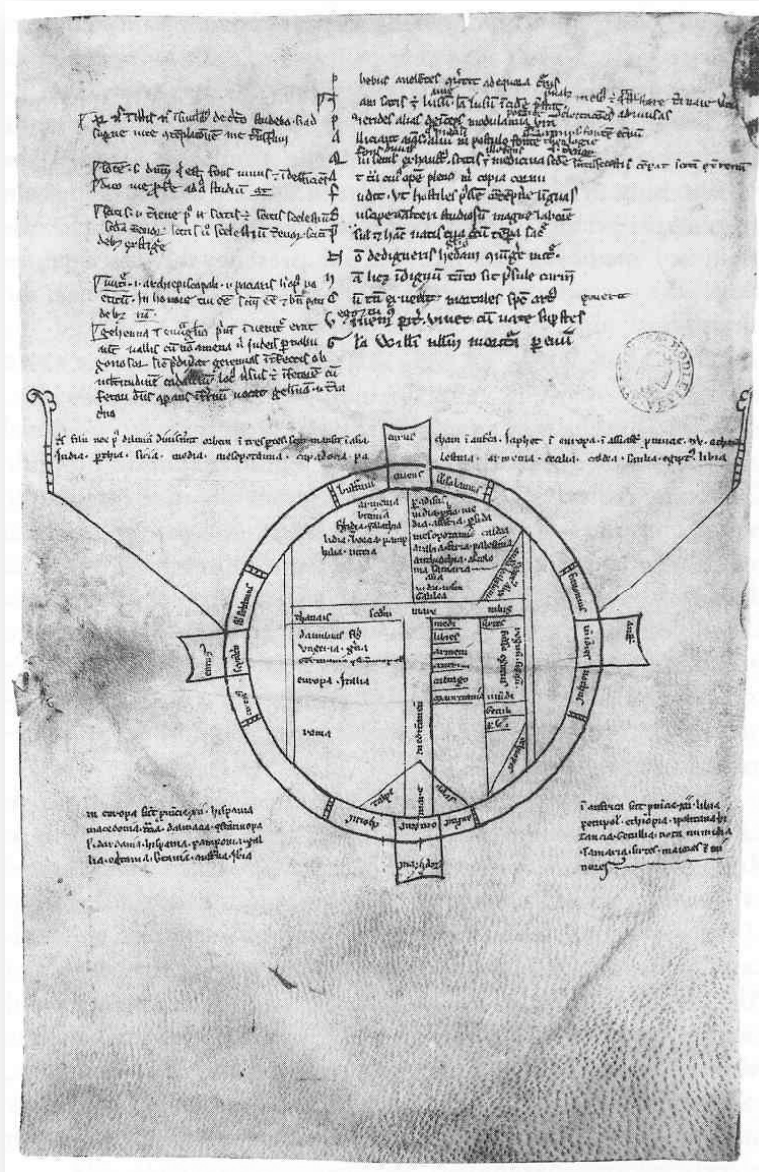
As mentioned above the map is of T-O type, but unusually, it also incorporates the Macrobian climatic zones. Zonal maps we generally oriented with north at the top, but here the T-O model takes precedence and hence the map is oriented with East at the top. The zones in the map are therefore shown as vertical divisions at the two extremities of which we *intemperata* [extreme] zones. The Temperate Zone, which includes the inhabited world, is widened and occupies a large portion of the map and is itself shown in the T-O format. At its southern border is the *perusta* [scorched] zone, which is followed by the Southern Temperate Zone, all unknown to mankind. The Southern Temperate Zone is shown very narrow and bears no legend or description.

The inhabited world is squeezed inside the Northern Temperate Zone; hence it is shown in somewhat distorted and stylized form. In order to accommodate all the information intended to go on the map the width of the Temperate Zone has been exaggerated, making it wider than all the other zones combined. The Mediterranean Sea, here called *Affricum mare*, separates *Europe* from *Africa* and the rivers *Thanais* and *Nylus* are the borders between Asia-Europe and Africa-Europe respectively. The two sloping lines at the western end of the Mediterranean, near the ocean are named *Calpes*, to Rock of Gibraltar, with *Gades* [Spanish city of Cadiz] situated in their middle.

The landmass of Asia is shown divided into three parts. The northern part contains the provinces of *Armenia*, *Brithinia*, *Frigia*, *Galacia*, *Lidia*, *Bactria*, *Pamphilia*, *Cilicia*, *Nyce* and *Troy*. The central sector is topped by *Paradise*, followed up by the names *India*, *Parthia*, *Assyria*, *Persida*, *Media*, *Mesopotamia*, *Chaldea*, *Arabia*, *Syria*, *Palesinta*, *Ascelonia* and *Antiochia*. The Biblical provinces of *Samaria*, *Galylea*, *Judea* and *Hierusalem* follow the inscription *ASIA*. The third sector of Asia, at the far right, contains the inscriptions *Alexandria*, *Egyptus* and *Babylonia* (in reality Cairo). In the area of Caucasus only *Armenia* is mentioned.

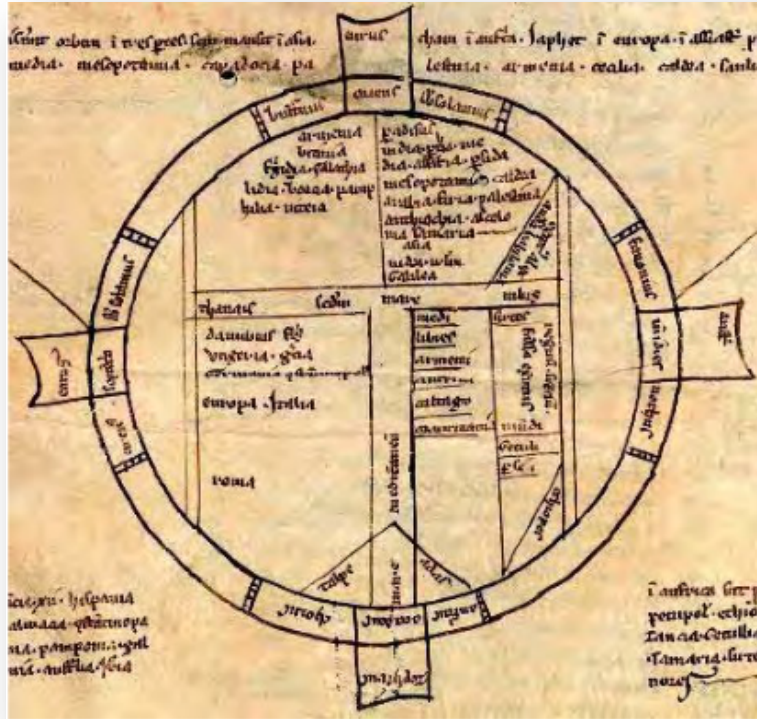
In Europe, at the lower left of the map many provinces are shown including *Roma*, *Ythalia* [Italy], the city of *Constantinople*, *Grecia*, *Ungaria* [Hungary], the river *Danube*, *Germania* and *Francia*. At the very edge of the map the provinces of *Anglia*, *Scocia*, *Hyberia* [Ireland] as well as *Britannia* are shown. *Britannia*, here most probably refers to the French region of Brittany rather than Britain, which is already shown with the names of its constituent provinces.

In Africa the cities of *Carthage*, *Cyrene* [Seine - Aswan] and *Hyppone* [Hippo, present day Annaba in Algeria], as well as other provinces are shown. In line with Sallust, who writes that the Persian and Armenian mercenaries of Hercules' army settled in the northwest of Africa, this area of the map shows the name *Perse* [Persians] but no Armenians.



13th century Gautier de Chatillon World Map, English, 7 cm diameter

The text that surrounds this tiny but detailed T-O map refers to the division of the earth among the sons of Noah, revealing its origin from another work, as Gautier does not mention this event in the accompanying text. The 'Medes, Armenians and Persians' appear in Africa, following Sallust history. The map is located at the end of the poem and contains 59 geographical names, in addition to the cardinal directions and the 12 winds. Oriented to the East, the areas marked off in the North and South may be the remnant of a zonal map. In short, this is a composite world map, drawn from a variety of sources and here included as relevant to the tale of Alexander, who conquered the world. Bodleian Library, MS Bod. 527, fol. 189v (#205TT)

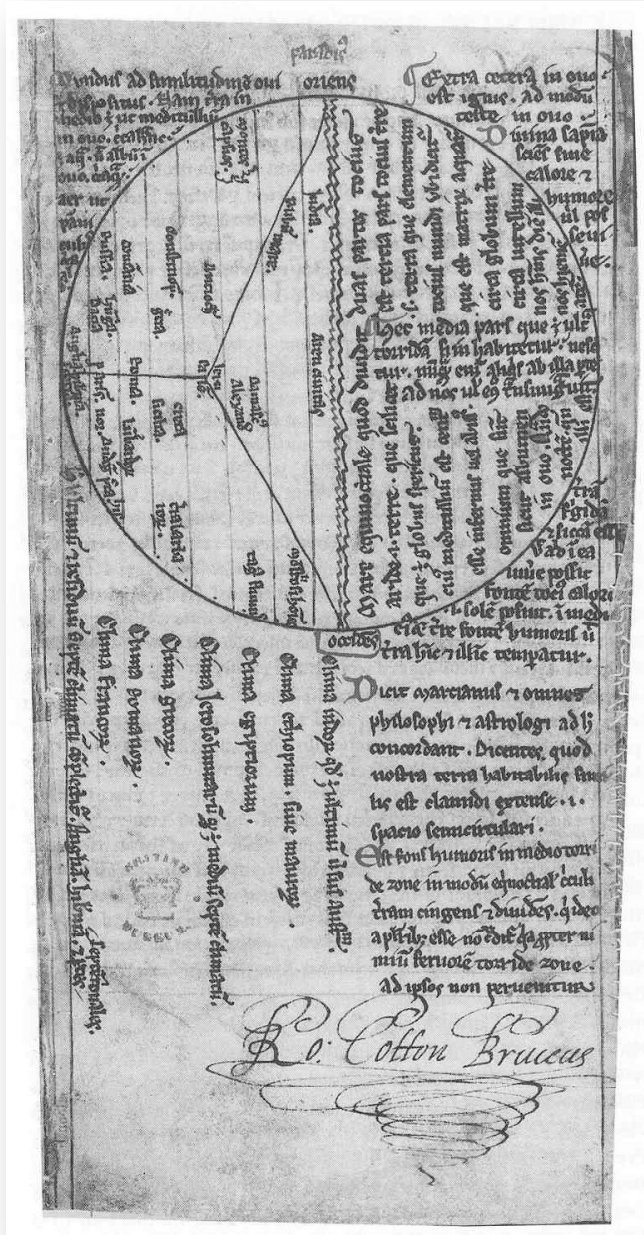


Elaborate T-O map with truncated Nile and Don Rivers, some place-names (but not Jerusalem), in English manuscript of Ph. De Castellione, *Alexandreis*. The four tages around the circle bear the names of the winds and the cardinal points, 1245-1300, 7.2 cm diameter, Oxford University, MS. Bodl. 527, fol. 189r.

This map is known as *Gautier de Chatillon world map* and is included in his work entitled *De Alexandreis*, an epic poem about the conquests of Alexander the Great. The author was born in Ronchin, France in 1135 and died in 1201 in Amiens. The book includes this map, which is a *Sallust* type of map and contains a few of the toponyms included in the poem. In addition to having the T-O map layout, the map also boasts two double vertical lines at the northern and southern fringes of the inhabited world, dividing the world into three climatic zones. The two outer zones are the frigid zones, outside the habitable world and only the central part is shown as the habitable world, conforming to the T-O shape and divisions.

The four protruding arms and the outer ring of the map are inscribed with the names of the four cardinal directions and the external double circle bears the legends of the twelve winds. The rivers *Tanais* [Don], *Nilus* [Nile] and the *Mediterraneu Mare* [Mediterranean Sea] are shown as the arms and the stem of the letter T, dividing the continents. In Europe the names shown include the river *Danubius* [the river Danube] *Ungaria*, *Germania*, *Italia* and *Roma*. The triangular shape at the western end of the Mediterranean, near the ocean is inscribed *Calpe*, Latin for the “Rock of Gibraltar”. In the territory of Asia the toponyms are divided into two columns. The column on the left begins with the region of *Armenia* and is then followed by *Bitinia*, *Frigia*, *Galathya*, *Lidia*, *Boecia*, *Pamphilia* and *Niceia*. The right column begins with *Paradisus* and is followed by *India*, *Parthia*, *Media*, *Assiria*, *Persida*, *Mesopotamia*, *C[h]aldea*, *Arabia*, *Siria*, *Palestine*, *Anthiochia*, *Ascolonia*, *Samaria*, *Asia*, *Judea*, *I[e]r[usa]lem*, *Galilea* and the legends in South Asia read *Egypt*, *Alexandria*, *Babilonia*.

Africa includes various countries and tribes. From top, along the Mediterranean we note the tribes of *Medi* (Medes), *Ubies* (Libyans) and *Armeni* (Armenians), who according to Sallust had settled in North Africa after the death of Hercules. The text around the map also describes the division of the earth between the sons of Noah.



John of Wallingford World Map, c. 1250, England, 8.2 cm diameter

This is a climate Y-O map, in which the inhabited world is divided into eight climates, seven of which come from Pliny. 'Aren civitas' in the far south shows the influence of an Arabic map. Jerusalem is at the juncture of three lines that roughly divide the continents. The text in the southern hemisphere describes the universe surrounding the earth 'like the white of an egg'. Other notes on cosmology, including a list of the climates, fill the page. British Library, MS Cotton Julius D.VII, f. 46r (#205AA)



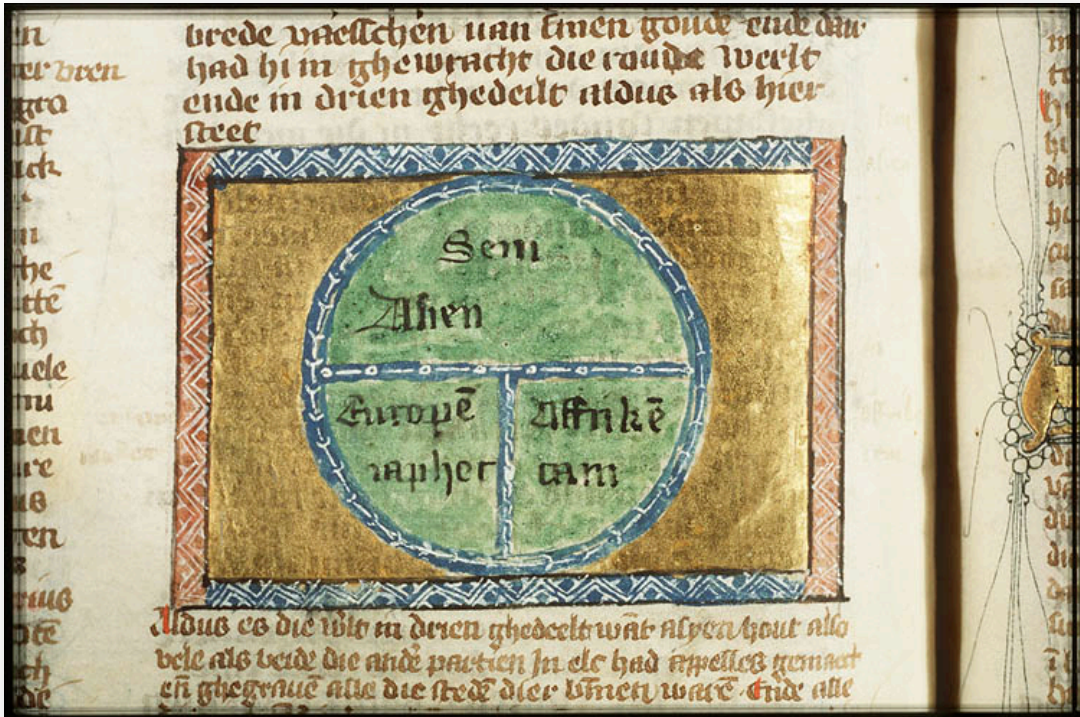
Psalter T-O Map, ca. 1265, 9 cm diameter

Here the earth is embraced by Christ, who tramples the two dragons underfoot. Instead of a pictorial representation of the world, a list of provinces, cities and islands is given, divided into the three continents
British Library, BL Add. MS 28681, fol.9v (#205VV)



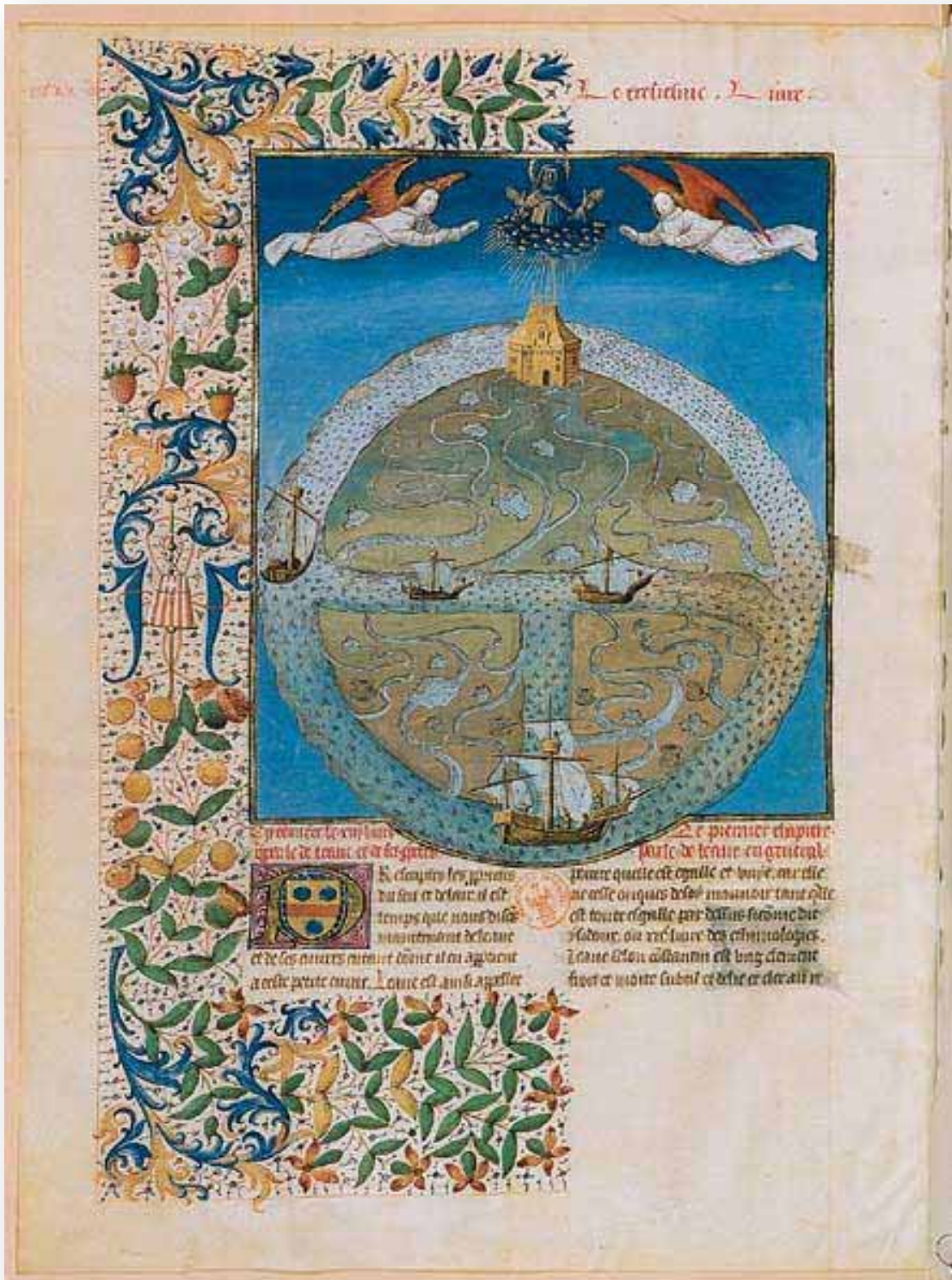
Modified T-O Map, 12th century, 9 cm diameter

From Book XIV.2 of Isidore's *Etymologies*. The surrounding ocean and the divisions between the continents are added to this map (the Nile, the Mediterranean and the Tanais [Don] with the additional refinement of the Sea of Azov [Meotites Palus, here: the lake or swamp of Maeotis]. This feature is mentioned by Isidore in XIV.4, and in the diagram forms an elbow or Y-shape. The scribe also included the cardinal directions and the names of Noah's three sons, as well as a small cross in the East. This diagram appears for the first time in a pair of Spanish manuscripts from the ninth century. British Library MS Harl. 2660, fol.123v (#205VVV)

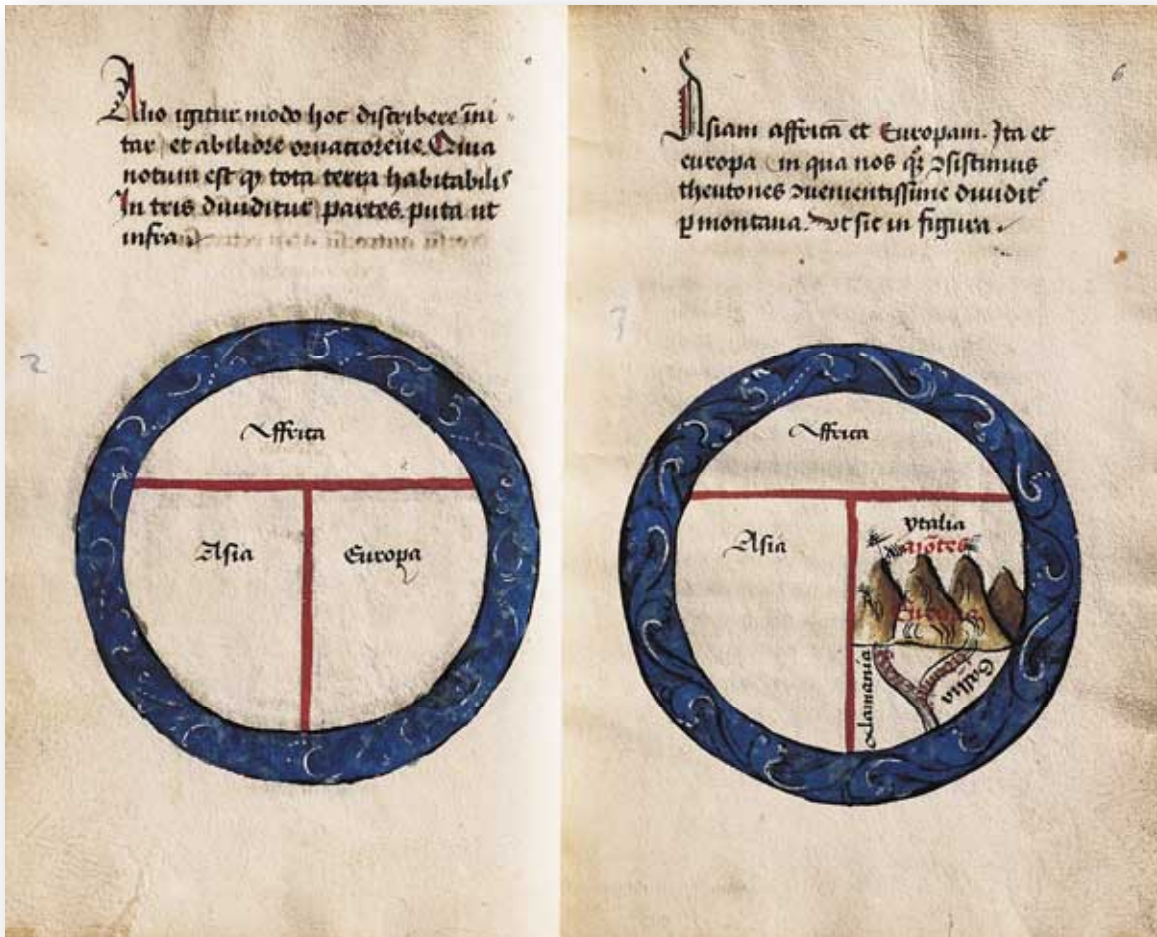


Mappamundi on the Tomb of Darius, 1425-50 (#205Z2)
Alexander in Historienbijbel, The Hauge; Koninklijke Bibliotheek, 128C2, fol. 84v





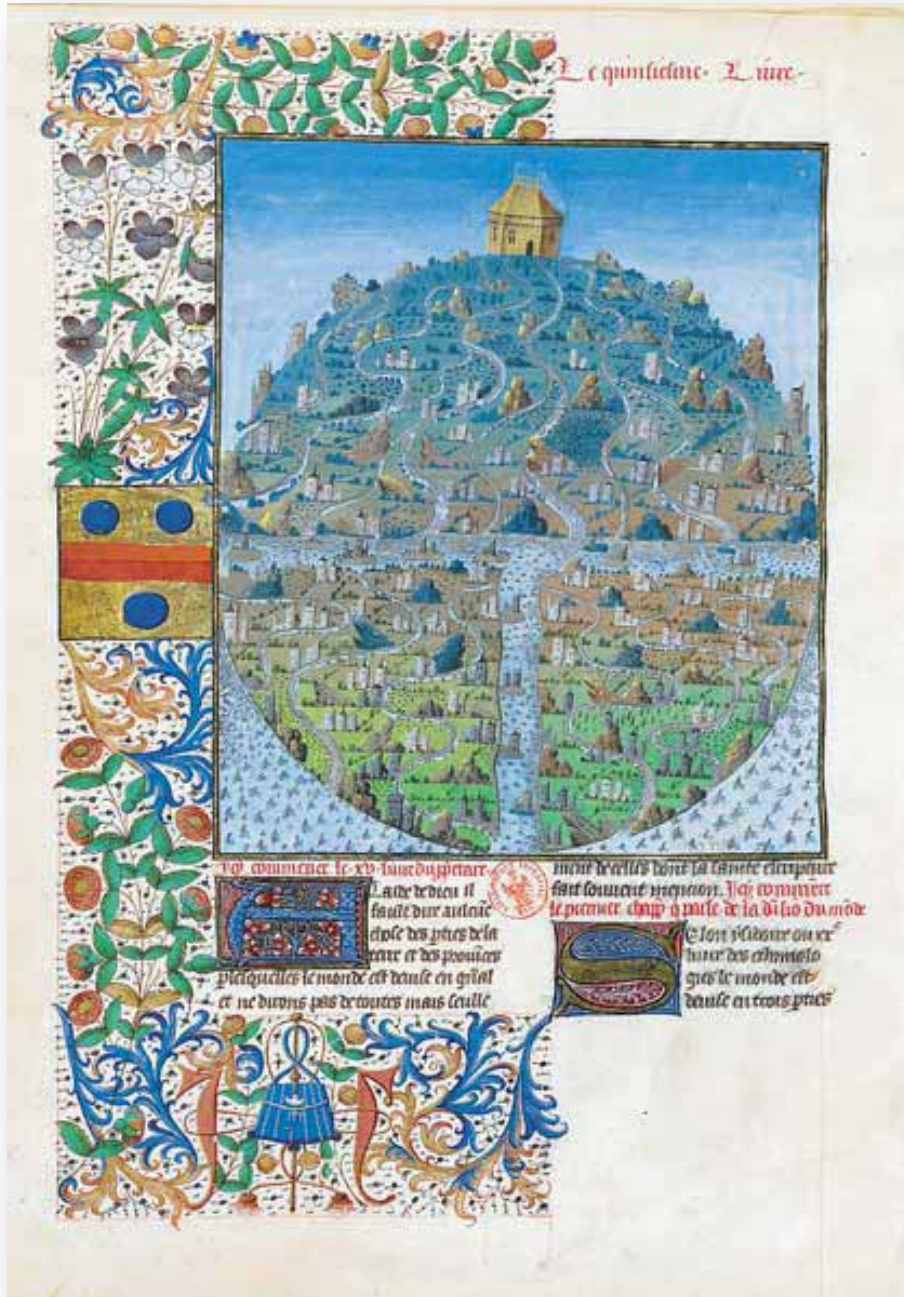
Livre des proprietes des choses, 42 x 32.5 cm, Jean Corbechon, 1479-80 (#205Z4)
BnF, Manuscrits (Fr 9140 fol. 226v).



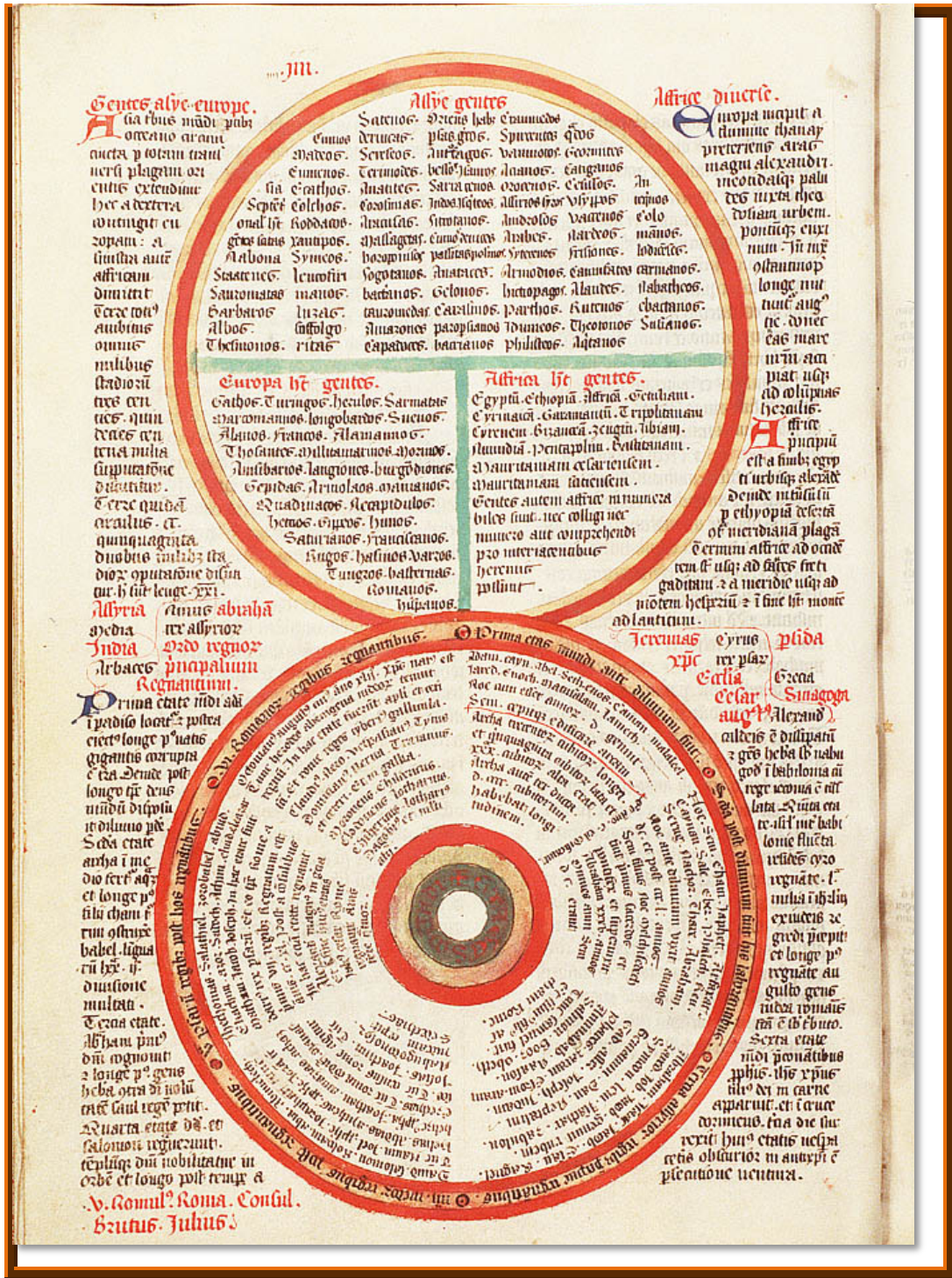
Mappamundi from *Description de la Confederation helvétique*, Albert de Bonstetten (#205Z5) BnF, Manuscrits (Latin 5656 fol. 5v-6)



T-O Mappamundi from *L'Image du monde*, 6 x 6 cm, 13th century, Gossuin de Metz (#205Z6) BnF, Manuscrits (Fr 1607 fol. 43)



Barthélemy l'Anglais, *Livre des propriétés des choses*. Jean Corbechon, 1372. Copié par Gilles Gracien et illustré par Evrard d'Espingues pour Jean Du Mas, seigneur de l'Isle-Adam, Ahun (Marche), 1479-1480. Manuscrit sur parchemin, (393 feuillets, 40.5 x 30 cm)
BnF, Manuscrits (Fr 9140 fol. 243v). #205Z3



Lambert of St. Omer, Liber Floridus Place of origin: Lille and Ninove; 1460
 Material: Vellum, ff. 225, 40.8x28.6 (30.4x21.5) cm, 2 columns, 40 lines, littera textualis. Latin.
 Decoration: 98 colored drawings. Made for Pierre de Goux et de Wedergraele (d. 1471). Philip of Cleves
 (1456-1528). © Koninklijke Bibliotheek National Library of the Netherlands



12th century T-O and V-in-square maps from
 Isidore of Seville's *Etymologiae sive Origines*, 7.2 cm
 BNF, Manuscripts (Latin 10293 fol. 139r)

Chet Van Duzer, "A Neglected Type of Medieval Mappamundi," pp. 278–280, mischaracterizes the V-in-square figure as used to diagram the Noachide dispersion in copies of Isidore's *Etymologiae* (Book 14), where it is almost always juxtaposed with a T-O map. The V-in-square figure does not correlate Noah's sons with the world's partes, which are nowhere included: the name Shem written inside the "V" cannot be said to "indicate" Asia, nor Japheth at left Europe, nor Ham at right Africa. Rather, the V-in-square functions precisely to offer an alternative to the tripartition of the T-O; the former epitomizes the distribution of peoples according to passages in *Etym.* 9.2, esp. lines 9, 25, and 37, which depend on Jerome, *Hebraicae Quaestiones in libro Geneseos*, 10.2–22. Early exegetical tradition hesitated too rigidly to align Noachide inheritance with the geographic division of lands. For example, Bede in *Hexaemeron*, 3.10.1–2: "the first-born Shem obtained Asia, the second son Ham Africa and the last-born son Japheth Europe – at any rate with the proviso that, since Asia is greater by far in the geographical area of its lands than either Europe or Libya, the descendants of Ham and Japheth also possessed some portions of Asia," quoted from *On Genesis*, trans. Calvin B. Kendall. (#205T)



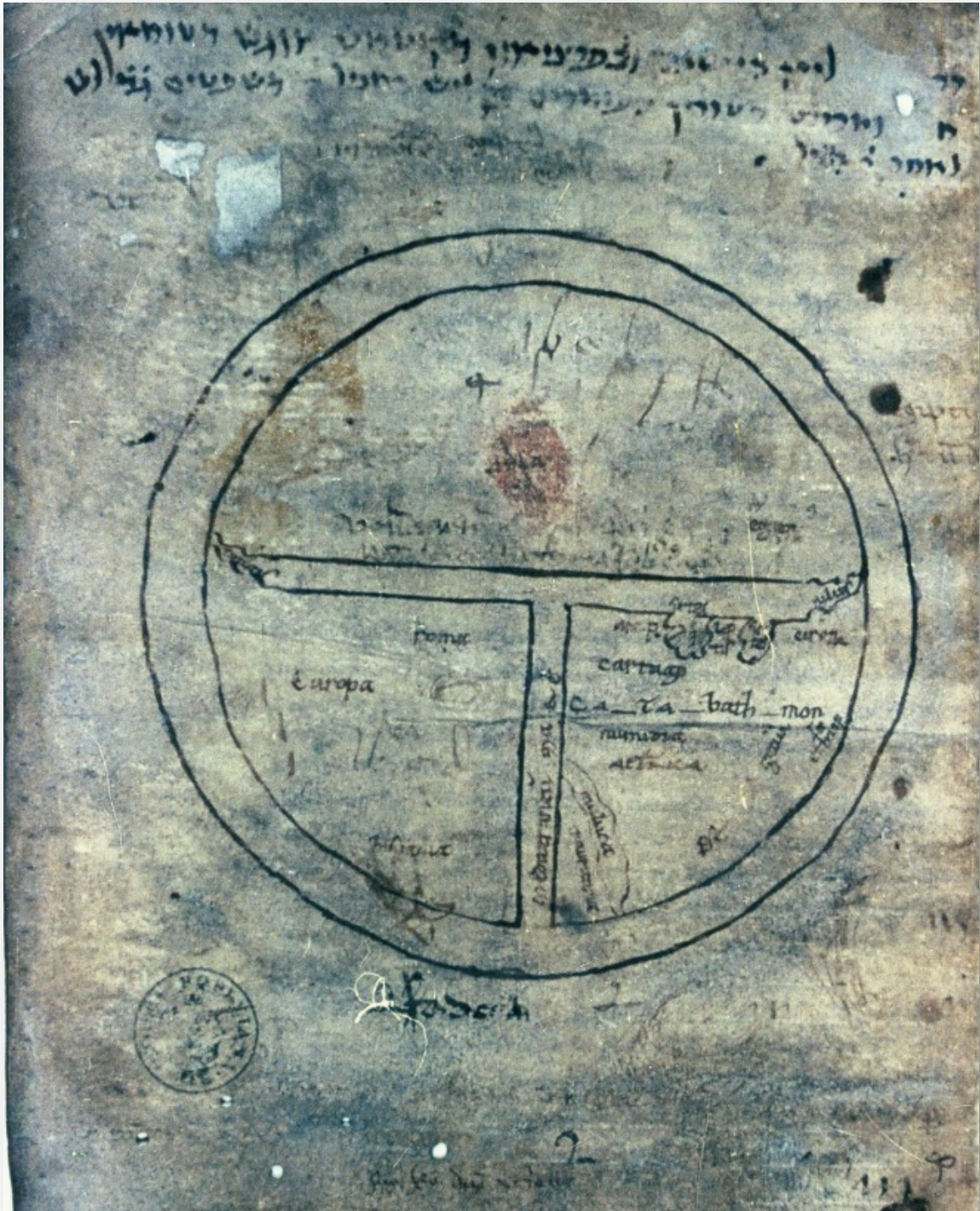
Map in a state intermediate between a T-O map and a Mappa Mundi. Map with its center Delos, following a Greek tradition; the compass-drawn circle is the Cyclades, in French manuscript of Henry of Huntingdon, *Ymago Mundi*. The *Mare Oceanum* is a necklace of red and blue uncials. Late 13th century, 15 cm diameter, Oxford University, MS.e.Mus. 223, fol. 185r. (#205Z16)



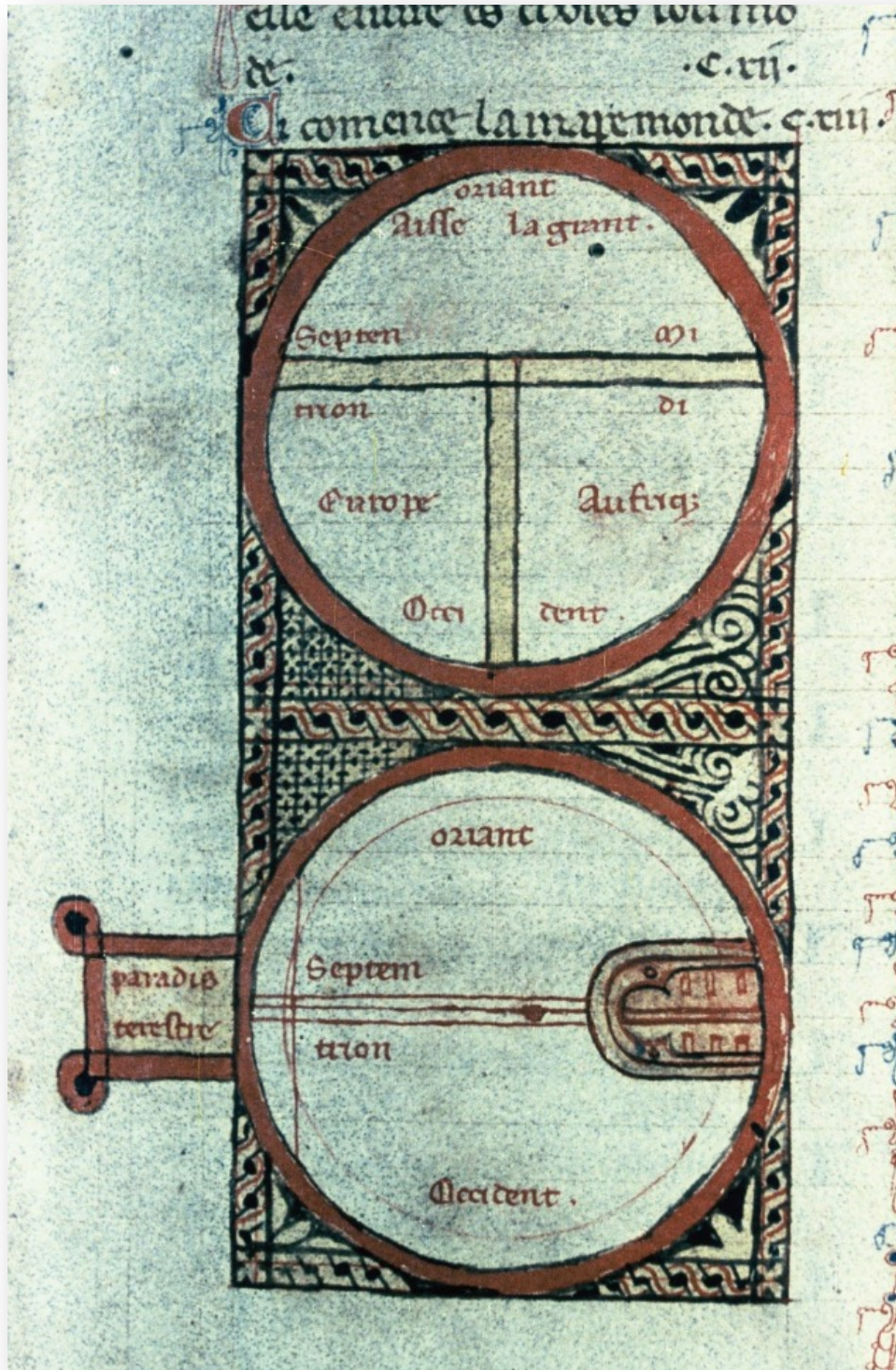
T-O map where almost everything is wrong, in English manuscript of the Latin Bible, ca. 1400, 7.7 cm diameter, Oxford University, MS. Auct. D. 5.14, fol. iir. (#205Z17)



Mappa Mundi from *Sir John Mandeville and the Rhizomatic Travel Book Mappa Mundi*, Cape Town Ms. G4.b.17, f. 2v., mid-15th century, National Library of South Africa



T-O map with truncated rivers Nile and Don, in southern French manuscript of Sallust, *Bellum Jugurthinum*, early 12th century, 9.6 cm diameter, Oxford University, MS. Rawl. G. 43, fol. 56v. (#205Z15)



Basic T-O map and a schematic map that places the terrestrial paradise in the north and the Pillars of Hercules(?) in the south, in Flemish manuscript of Brunetto Latini, *Le Livre dou Tresor*. Early 14th century, 6 cm diameter (each), Oxford University, MS. Douce 319, fol. iiir. (#205ZZ38)



T-O map with Asia, Europe and Africa within a circle, in English manuscript of St. Isidore of Seville, *Opus de Natura Rerum*, 2nd half of the 11th century, leaf-size 27.5 x 18.5 cm, Oxford University, MS. Auct. F.2.20, fol. 16r. (#205Z10)