

TITLE: *The Zeitz Map*

DATE: 1470

AUTHOR: *unknown*

DESCRIPTION: The Stiftsbibliothek at Zeitz in Germany possesses a large folio manuscript atlas of Ptolemaic maps, with accompanying commentary, dated 1470. In addition to the Ptolemaic world map on the conical projection, there is as the fourth *Tabulæ modernæ* a circular map in the manner of the *portolan* [nautical] charts, but without the network of rhumb lines typical of the latter. The circular world map has a diameter of 45.7 cm (44 cm wide and 57 cm high), there are minor cuts on the sides, but originally it must have been complete as indicated by the fact that on the left side, where the sheet has been enlarged by pasting on a narrow strip of paper, parts of the legend have been lost. The map was also formerly folded, as can be seen from a mark passing through Jerusalem, the center of the map. The sea, as in all other maps of this atlas, is green, the mountain ranges grayish-brown or yellow, while the cities are represented by small filled red circles. The legends of the manuscript are written in a very neat Gothic.

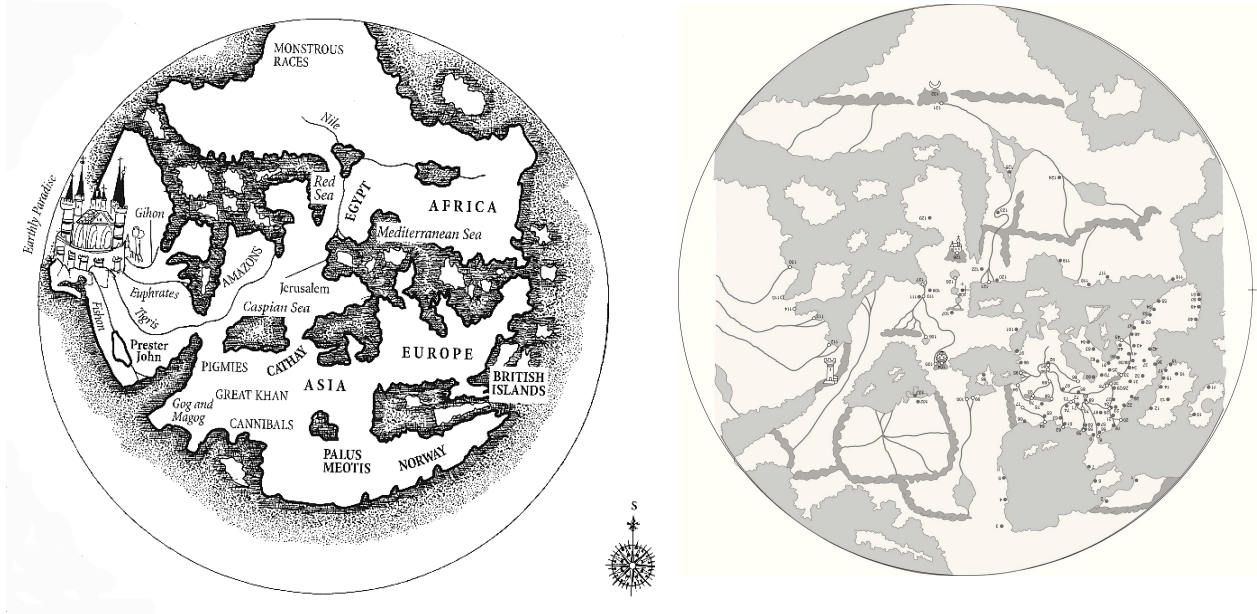
The orientation of the *mappamundi* towards the South is perhaps the first aspect that surprises and intrigues the modern spectator who is used to North-oriented maps, and who is therefore disoriented by the effort required to identify landmasses which not only have 500-year-old outlines, but which are also turned “upside down,” thus losing their familiar shapes. Most of the diagrammatic manuscript *mappaemundi* of the period 1150-1500 are oriented to the East. But among the maps contemporary with that of the *Zeitz mappaemundi* is the 1448 world map of Andreas Walsperger (#245), the so-called *Borgia* world map (#237) of the first half of the 15th century, the Benedetto Cotrugli’s *De navigatione* world map of 1465 (#250) and the *Fra Mauro mappaemundi* (#249) of the last quarter of that century are all oriented to the South. Thus it is not surprising that, around the mid-15th century, a *mappaemundi* was oriented to the South. Some explanations also include the influence of the contemporary Islamic cartography, the cosmographical concepts of Aristotle, and, of course, the maritime commercial focus of the Indian Ocean and thus towards the South.

At the first glance, the map reminds us of Andreas Walsperger’s circular map of 1448 (#245), which also has the sea in green and lacks the compass lines. Close comparison even reveals complete agreement in the coastal outlines. Likewise, the limits of the terrestrial disc as determined by the circle are the same, the only difference being that in *Walsperger* this circle is drawn eccentrically and does not define the limits of the map, and, moreover, it is not complete, being interrupted by the seas. In *Walsperger*, the circumference forming the northern limit, with an extensive stretch of sea beyond, makes Norway appear as a peninsula, although, as the *Zeitz* map shows, this was not the intention (in the Table, the southern part of Norway seems to be cut off by a sea inlet, while actually the separating feature is a mountain chain). The author of the latter map has, consequently, used either that of *Walsperger* or a source common to both. As he had renounced Walsperger’s scientific additions (celestial spheres, climates, polar legends, etc.), which partly fill the seas, he could also do without the now empty ocean space and close the two circles. Like Walsperger, he represents Europe as having a “cat’s back” in the north, Jutland with the same pronounced contraction, Sweden as an island, and finally, the Baltic Sea in the same form, different from that in the *portolan* charts.

The complete divergence from the *portolan* charts is noteworthy in other respects also, as is the renunciation of their geographical advances, i.e. of the excellent drawing of the coasts of NW Africa, the Mediterranean and the Black Sea. We find this renunciation whenever Ptolemy is again used as a source. In this connection, compare the *Catalan-Estense*

map in Modena (#246), whose author, approximately contemporary with *Walsperger* (#245), used the old *portolan* chart as a basis and only enlarged it to east and south to about double the extent. But unlike this *Modena* map, which shows even fewer cities than most *portolan* charts, we find in the same area on both charts almost the same wealth of topographical data which is surprising (since the *portolan* charts never suggested anything of the kind) in the first *Tabulae modernae* of Spain and Italy appended by Donnus (Donis) Nicolaus Germanus. Especially in the German region we find names of quite insignificant places like Ragnit, the only town of the district of the same name in the former East Prussia.

In the light of this increase of topographical data it is surprising to note the negligent treatment of the North, especially in the *Zeitz* map, considering that the atlas also contains the much more detailed map of the North by Nicolaus Germanus. We must recall however that other atlases also often give different forms to a specific area.



A comparison of the Walsperger map (left) and the Zeitz map (right), both oriented with South at the top

While the anonymous author of the *Zeitz* map drew the geographical outlines exactly as *Walsperger* did, he follows his own path as regards the number and wording of the legends. It is true that he takes over almost all the legends, about 30 in number, but he gives them in shorter or more detailed form and adds to them at least 18 new ones, and in some of the legends taken over from *Walsperger* he also shows that he is using his own knowledge. Thus, to the legend according to which the wife is buried alive on her husband's death, he adds the critical remark that Strabo had stated that the wife was burnt (*Legend 35*). And in contradiction to *Walsperger's* statement that in Norway the trolls (goblins) appeared in concrete shapes (*in figuris*) and aided people, the *Zeitz* map says (*Legend 45*) that, instead, they beat them but had never yet been seen. And the legend concerning trees that give birth to birds (*Legend 46*), which all other maps, including *Walsperger*, place near Ireland, is in *Zeitz* linked to Scotland. The author of the *Zeitz* map gives the islands of the Indian Ocean names different from *Walsperger* in part (*Insula Jabadum*, *Orgia*, *Insula preciosissima*); he also shows *Imaus mons*, the *Magnus sinus* and other details absent from *Walsperger*, and places the *Amazons* not on the continent but on one of these islands. Finally it is also very remarkable that he re-establishes the island of *Meroe* in

the Nile, common to all old maps from Ptolemy, but replaced in *Walsperger* by a *lacus Meroys*. Today there is no island of *Meroe*. The locality lies 17 degrees north, somewhat south of the mouth of the Atabar. The Ptolemaic text reads: *Beginning from here an island, Meroe Regio, is formed by the Nile in the west and by the Astabora River which flows from the east.* On the Ptolemaic world maps the *Astapus* approaches the Nile south of *Meroe* and empties an arm into it, forming an island, and is then called *Astaboras*. Similarly, to the oval lake crossed by the western stream of the Nile, and called *lacus affrorum* by *Walsperger*, he gives its name as stated in the *Catalan Atlas of 1375* (#235), *lacus Njyl*, here in the form *Niliadis lacus*. From the *Vesconte* world map (#228), it appears in the *portolan* maps in different shapes and is usually said to be auriferous [gold-bearing]. In some, e.g., *Vesconte* and *Carignano*, it is an independent river, always flowing through a lake and having no connection with the Nile, in other maps it is a river flowing into the Nile in a northeasterly direction, called *Gion* up to that place and *Carixius* in the following lower course; in the *Catalan* maps it is called *Kareyse*. The former is called the *Nile* in some cases only, while the one flowing in the northeasterly direction is always called the *Nile*. The use of *affrorum* being presumably explained by a legend on Africa in some *portolan* maps. This legend says that Africa got its name from King Afler, a son of Abraham. The individual legends on the *Zeitz* map read as follows:

Africa.

1. Here are one-footed people very fleet in running.
2. Here people have (only) one eye in the forehead.
3. Here people have their face on their breast
4. Here people have lips covering the head
5. Here people have three faces and are therefore called *trigodites*.
6. There are in this desert innumerable lions, tigers, centaurs and various large unnamed animals.
7. Island of Jupiter or Immortal Island where nobody dies but in old age is expelled and deprived of life.
8. Here are black naked forest people who live on the fruit of a (certain) tree and therefore worship that tree.
9. Here are the black cruel Saracens against whom Prester John often makes war.
10. Here sons kill their parents and make feasts of their flesh.
11. Here, on a very high mountain is a fishpond whose dissolve again into water.
12. Here the King is beheaded after a year.
13. In the river Nile and its lakes there is plenty of purest gold, but there are many serpents and great crocodiles.
14. Here people have (only) one large foot with which they cover themselves during the great rains [another version: against the sun]
15. Here people have tails on their backs in the way wolves have them.
16. Here animals which have the heads of goats and horns, but hands and feet as people, and run on their feet [i.e., upright on two feet].
17. Here people have lion's heads and are poor fighters.
18. Here is said to be close to the sea a statue of Pallax, which has nine heads, three human heads and six heads of serpents.
19. The island *Hesperia* around which the best corals and silky wool are found.
20. The very large kingdom of *Lybia* where many lions, bears (*ypote*), and oxen are found. In the solitude of this kingdom lived the great St. Anthony with St. Paul, the first hermit.
21. Ethiopia where Prester John reigns.

The Red Sea and Arabia.

22. The Gulf of Arabia in which many islands and innumerable red cliffs for which reason it is called the Red Sea.
23. Arabia the fortunate where are riches of gold, silver and other things.
24. The city of Mecca where the accursed Mohammed is buried.

The Indian Ocean.

25. Here ships containing iron are deviated because of the magnet.
26. The island of *Ophir* where precious stones are found.
27. The island of *Taprobana* where is the tomb of St. Thomas, and here elephants are born and pepper grows.
28. Island on which lived the Brahmins?, naked, black and devout people [from the Alexander legend].
29. *Zandala* [on other charts Sandala] where Candabor held the imaginary paradise to be.
30. Here are many islands of the cannibals. Those who inhabit them are said to have tails.

Asia.

31. Here gigantic people fight with dragons.
32. Here big ants guard the Urcos mountains.
33. Here are the trees of the sun and the moon in the region where Alexander was.
34. The Golden Chersonese, a good and fertile region.
35. Here, when the husband dies, his wife is buried with him. Strabo says that the wives are burnt.
36. Here women have beards.
37. The stone tower where you go into India.
38. Here pygmies fight with cranes.
39. Waldach, the capital of *Cathay* where the Grand Khan resides.
40. *Gog and Magog*. Here the red-haired Jews are imprisoned.
41. Here people eat human flesh.
42. Here are *cenophals* who have dogs' heads.
43. The wicked people of the Scythians who are always on the move because of the severe cold.



Europe.

44. Here the people are so obedient to their masters that they hang themselves quickly rather than provoke their master's wrath.
45. In Norway there are many trolls [goblins]: human spirits. They speak, eat, drink and beat people but still have never been seen.
46. On the coast of Scotland are trees on which grow geese suspended like pears, and as soon as they fall down they swim to the water and live.

The *Zeitz* map has a much smaller number of cities in Europe than *Walsperger*, only about 70, and moreover, its selection is different. In addition to 50 common to both, the *Zeitz* map has 20 other names. Thus he stresses *Saltes* near *Palos*, which became especially famous only through Columbus, rather than Cadiz. And we see that *Caffa* in the Crimea (in *Walsperger*: *dominorum Januensium*), where the Genoese from 1266 had a colony with bishop's see and General Vicariat, was considered the most important locality on the Black Sea, in addition to the unnamed *Trebizond* and also an unnamed city more to the west (*Walsperger*: *Samastro?*). While *Walsperger* lists *Köppenhan* in Denmark, *Zeitz* considers the southern outer port of *Dragör?* (Trakenur) as more important.

Moreover, names have been added which are not found even in the most detailed *portolan* maps such as *Dalorto*, *Dulcert*, *Pizigani*; thus *Kempem* (Kampen on the Zuidersee), and *Kamen* (Caumont near the mouth of the Rhone?). In England he stresses Winchelsea which at that time was in fact the most important of the *Cinqueports*, and Canterbury, giving a Germanized spelling to both, i.e. *Winkelse* and *Candelburg*. This divergence from the *portolan* maps is striking, as Canterbury was called "*sco pomas d'conturba*" in the *Pisan* map and Winchelsea is spelled *Ginalexo* almost without any variation from the *Luxor Atlas* to at least *Freducci* in 1538 (London). Also *Truntbaym* (elsewhere *tronde* = Trondhiem), *rogel* (Rochelle) and the frequent use of W instead of V (*Wenecia*, *Wiena*) must be cited as examples of Germanization.

There are far fewer city pictures and other illustrations in the *Zeitz* map than in *Walsperger*. We see only the crescent on the *Mountains of the Moon* in South Africa, the monastery of St. Catherine on Mount Sinai, the *Iron Tower* as the passage to India (*Legend* 37), *Noah's Ark* on Mount Ararat. It is the only map to show Jews, with their pointed hats, confined in the mountains by *Gog* and *Magog* (*Legend* 40). One reads north of the Caspian Sea, almost at the end of the world, the legend: "*Gog and Magog//the Jews of the 10 [tribes] [of Caspia?]/are enclosed here*". Directly outside the gate holding them in are the characteristic legends "*here the pygmies fight with the cranes*" (a reference to the ancient tale of the pygmies and the cranes) and "*here men eat the flesh of men*". Within the enclosure is a crowd of people, the only ones depicted on the entire map, wearing pointed hats - a clear though exaggerated reference to the "Jew's hat" of medieval custom. The confusion of *Gog* and *Magog* with the Ten Lost Tribes is not surprising unless contrasted with the careful scholarship of a Fra Mauro (#249). Although this map derives, along with *Walsperger's* 1448 map, from a common original, circular in form, made around 1425 at the abbey of Klosterneuburg, and therefore is not Ptolemaic in origin, some Ptolemaic maps adopted the legend of the enclosed Jews, which, along with *Gog* and *Magog*, was passed down well into the 16th century. This longevity may have been based on a sense of Biblical authorization, the extreme distance at which these peoples were placed - "orientalized" and "septentrion-ated" to the far end of Asia - or a popularity exceeding that of other medieval legends.



A few comments on the manuscript itself may be in place. The atlas contains the usual 27 maps and, as *Tabulae modernae*, Spain, Italy, the Northern areas, and the circular world map. Here too the maps usually extend over two pages, but do not, as in later editions, consist of one piece, being drawn in two halves. In addition to the outer frame with degrees there are also two inner frames, also with indication of degrees, as was the case in the *Nancy codex* of 1427 and the *Brussels Lat.* 14887 of approximately 1485. This usage presumably had its origin in the difficulty of obtaining large sheets of vellum of double size for the often used format of 'fol. max.' The material is paper, with the exception of two sheets of pigskin. Some maps or half-maps as well as explanations are lacking, and others have been mis-bound. If, as is the case with the Ptolemaic *Ulm* editions of 1482 and 1486, the explanations (contents, length of the day, and the distance in hours from Alexandria) for each map are on the recto of the specific double-map-sheet, such mis-binding would be immaterial. However, as stated above, we have here individual sheets pasted on a guard,

and the explanation to each map is on the back of the preceding map. As a result of such mis-binding, for instance, not only is the explanation to Tab. IV facing *Tabula IV Europe (Germania)*, but also the eastern part of Tab. III *Asia* faces the explanation to the aforesaid *Germania* map (Europe IV).



A reproduction of the Zeitz mappa mundi, reoriented to North at the top and a translation of the places and legends

One cannot consider so late a Ptolemaic document without remembering the substantial inroads made by the “modernization” of Ptolemy, which originally consisted in the adding of newer maps (for the first time in 1427, the map of the North by Claudius Clavus in the *Nancy Codex*) and which left traces in almost all later editions. Ptolemy’s land maps were rectangular with equidistant meridians and parallels of latitudes, or as Fischer

put it: “on a modified Marinus-projection”. In their stead Donnus Nicolaus Germanus, who worked in Florence, introduced from 1466, not only for the *Tabulae modernae* but also for the actual Ptolemaic maps, the trapezoid form with slanting meridians, retaining however the horizontal latitudes (the so-called *Donis* projection). According to Nordenskiöld, Berlinghieri’s printed edition is the only one to retain the rectangular form, and the *Bologna* edition is the only one that uses the pure conical projection with slanting meridians and bent parallels of latitude.

The *Zeitz* manuscript still retains the old rectangular form for the land maps, including the map of the North. This form is found elsewhere only in a few cases, e.g., in the *Brussels Codex* and in the map published by Nordenskiöld, Bidrag. As regards its topographical content, the *Zeitz* land map lags behind the earlier *Wolfegg Codex* and the later editions (*Ulm* printed editions of 1482 and 1486, and others). The map of Europe VIII (the area between the Baltic Sea and the Balkans) thus shows, despite the previous existence of the map of the North, only the island *Scandia*, while in the maps referred to above the entire southeast of Sweden with *Bornholm* and *Gotland* have been taken over from the map of the North. As regards also the shape of the mountains, the number of cities and other symbols, *Zeitz* differs considerably, and on the whole appears to be executed with less care.

The “modern” maps have already been mentioned. Italy, as in numerous manuscripts and the *Ulm* editions, still has the old Ptolemaic sloping position, while Berlinghieri gives the peninsula its correct southeastern direction as all *portolan* maps had done long before. Also Nicolaus Germanus’ long hymn of praise to Italy is lacking here.

The map of the North shows Greenland erroneously as belonging to Europe or Asia, but otherwise it is placed correctly long beyond and to the southwest of Iceland. It thus represents the so-called *Zamoiski-type*, referred to by Fischer as the second version, while the *Wolfegg MSS* by Nicolaus Germanus and the *Ulm* editions which are close to it constitute the third version according to which Greenland is mistakenly placed north of Norway. Fischer discussed the dating of the map of the North and held that it could not be dated before 1474 since Holstein became a duchy only in that year. Also the *Zeitz* map says “*ducatus*” but writes correctly “*olsacie*”. Later, after the date October 4, 1468, had been established in the *Wolfegg* manuscript, Fischer arrived at the conclusion that this type had existed earlier as confirmed by the *Zeitz* map.

Quite unusual is the Ptolemaic world map which is pasted in two parts on the inner sides of the covers where there is scarcely sufficient space for it, suggesting that it had originally been larger. It does not comprise, as usual, the 180 degrees of the Ptolemaic *Orbis terrarum*, but only 90 degrees up to the middle of the Caspian Sea and the Gulf of Persia. The 57th longitude degree is drawn in red like the climate lines and thus is especially marked in the series (every five degrees). While the other known world maps (e.g., the *Ulm* editions, *Berlillghieri*, *Wolfegg* manuscript) note at the individual parallels their longest days and equatorial distances and the climates in between, indicated only by figures, and other maps indicate only the climates, connecting them with the lengths of days, the *Zeitz* map gives to the left the 21 parallels with their special marks and to the right the climates, and is the only one to give their special names and the pertinent planets.

It is surprising, however, that the *Zeitz* map is unduly extended upwards. It is true that the printed *Ulm* and *Berlinghieri* editions are the only ones known whose world maps logically show at the equator square meshes of the five-degree network, while others, as far as can be judged from the reproductions by Fisher, have transverse oblongs (approximately 4:5). In the *Zeitz* map the mesh, if the meridian is prolonged to reach the equator, has a height of five degrees of latitude equal to eight degrees of longitude! Fischer

discusses the *Zeitz* manuscript and calls it only “a peculiar and, indeed, incomplete world map which, as regards structure and execution, depends on the outline maps of the second Greek version of Ptolemy”. The statements on the margins, from bottom to top, to the left, read as follows:

Left-hand side (from bottom to top):

The 6th parallel is $23\frac{1}{2}\frac{1}{3}$ degrees* distant from the equator. Under it the longest day is 13 hours and half . . . and so on to

The 21st parallel is . . . ? . . . distant from the equator. Under it the longest day is . . . ? . . . and it goes through the island of Tile.

Righthand side (from bottom to top):

($20\frac{1}{2}$ degrees) The 2nd climate is that of the Ethiopians. It is called *dyacienios* and its planet is the Jupiter:

Its signs are the Sagitarius and the Pisces.

(from $27\frac{1}{2}$ degrees) The 3rd climate ... (as above) of the Egyptians - Dyalexandrios - Mars - Aries and Scorpion

($33\frac{2}{3}$ degrees) The 4th climate . . . of the Babylonians, Dyarodios - the Sun - Lion

($38\frac{3}{4}$ degrees) The 5th climate - of the Romans - Dyaromes - Venus - Taurus and Libra

($43\frac{1}{3}$ degrees) The 6th climate - of Gog and Magog -Diariferos - Mercurius - Twins and Virgo

($47\frac{1}{4}$ degrees) The 7th climate - of the Persians - Dyaboriscenes - the Moon - Cancer.

* The fractions correspond to the division of longitude degrees by 12 in Ptolemy (Ptolemaic maps) and are not used elsewhere for latitude indication.

As shown by the reproduction, the Ptolemaic world map in *Zeitz* is drawn on the conical projection which Ptolemy described as the easier one and had primarily discussed. The more difficult one, which was nevertheless recommended by Ptolemy, described by Fischer as a “modified” conical projection with circular meridians, latitude parallels and borders is known to us from some printed editions (*Berlinghieri, Ulm*, etc.).

Another innovation which appears together with the trapezoidal form as used by Nicholas Germanus is the shape of the Jutland peninsula. In Ptolemy it was an almost rectilinear lozenge, strongly bent eastwards, with a head placed on it. Although in this case, as in the case of the modern maps of Spain and Italy, the portolan maps had smoothed the road to truth, Germanus gives Jutland the form of a prancing caterpillar with an open mouth (the eastern mouth of the Lim Fjord?), which is familiar to us especially from the Ulm editions. However, it appears already in the first version (which lacks the map of the North) in the *Germania* map and was then taken over into the map of the North. However the *Zeitz Germania* map retains the Ptolemaic rectangular shape of the land map and Jutland’s old shape, although it shows the new form in the map of the North.

The written text includes, in addition to the explanations pertaining to each map and discussed above, the “*Ptouincie seu Satrapie*”, always placed after the last map (*Taprobana*). It is another enumeration of the most important provinces, 94 in number mostly identical with the chapter titles, and of their longitudes and latitudes. Then comes, as in the printed *Vincenza 1475* and *Ulm* editions, a brief reference to the color of skin of the inhabitants of the various zones of the world. At the end the colophon: “*deo Gracias / Claudij Ptholomei uiri alexandrini / Cosmographie octauus et ultimus liber / explicit feliciter Anno dni 1470 Jn die lucie*” (of St. Lucy).

The words *octauus et ultimus liber* suggest the question whether the whole is only a fragment and whether the eighth Book, short in itself, or even the complete work had existed. It has also occurred that the text and the maps were separated. In such a case it would seem in no wise impossible that these words were included without special thought, in other words that the Zeitz manuscript also originally contained only the maps.

Finally, a few words about the origin of the map. Fischer expresses the opinion that it comes from Italy since the former owner, the Naumburg Bishop Joh. Pflug (1499-1567), had studied in Padua and Bologna. This opinion is contradicted by the fact that the script is Gothic, while contemporaneous manuscripts that came from Italy already show the antique. Much more weight attaches to the germanization of city names, referred to above, which we find also in Walsperger who worked in Constance. Finally, the correction of "olfacie" into "olsacie", as stated above, speaks for a German rather than an Italian author. (J. Fischer does not mention these factors.)

LOCATION: Stiftsbibliothek at Zeitz (Saxony), Germany

http://www.unibw.de/inf4/professors/photo-en/persphoto-en/kleimen/mainactivitieskleim/zeitz-en/index_html#Faksimile

REFERENCES:

*Destombes, M., *Mappemonde, A.D. 1200-1500*, #54.17.

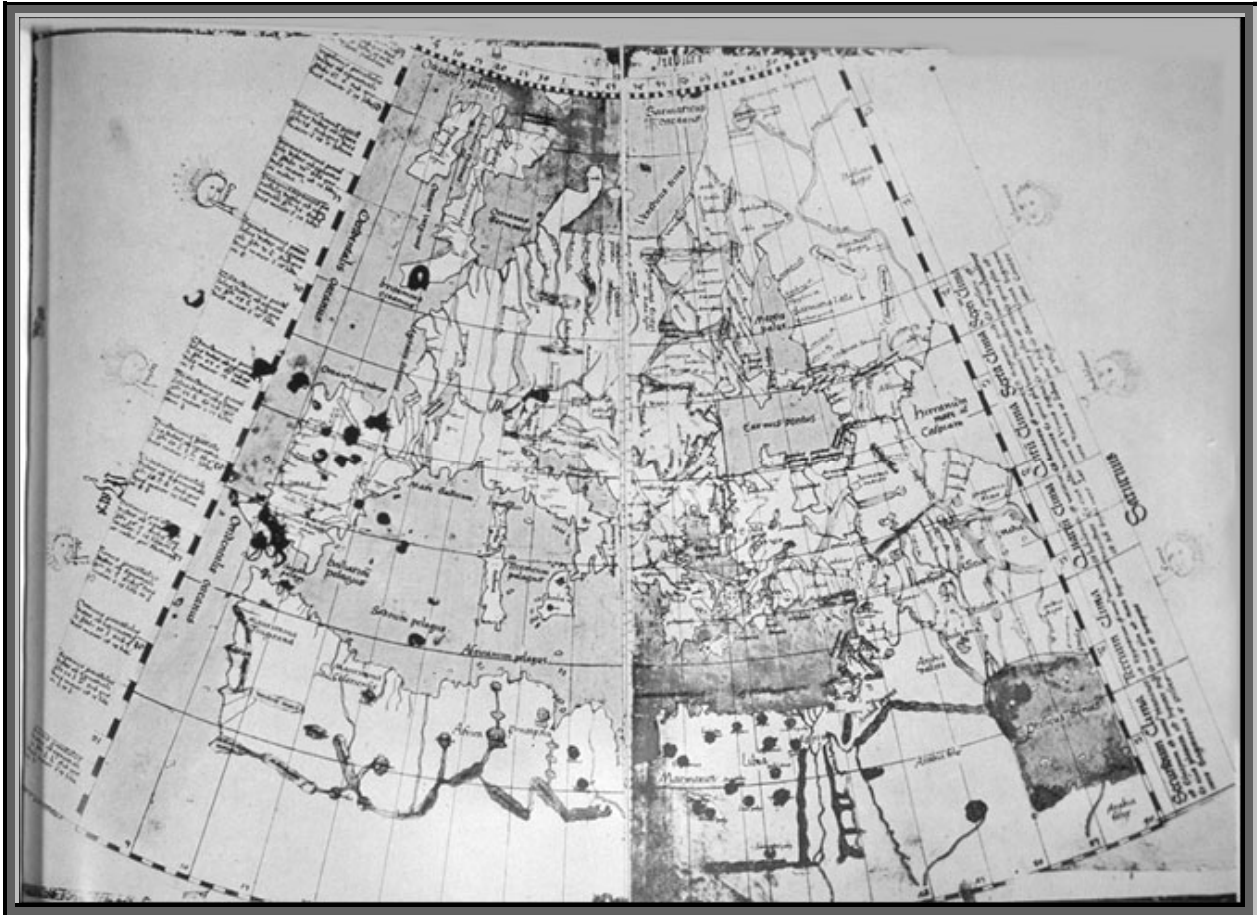
*Winter, H., "A circular map in a Ptolemaic MS.", *Imago Mundi*, vol. X, pp. 15-22.



Detail showing Mount Sinai, Noah's Ark and the Tower



The Zeitz World Map, 1470, 45.7 cm diameter
(oriented with South at the top)



Zeitz Ptolemaic Map, 1470



Zeitz mappa mundi, 1470, 45.7 cm (44 cm wide and 57 cm high),
Stiftsbibliothek at Zeitz (Saxony), Germany