The Genoese Map

TITLE: The Genoese Map
DATE: 1457
AUTHOR: unknown

DESCRIPTION: With the development of Portuguese seafaring in the 15th century and the subsequent widening if the southern horizon, the problem of ‘harmonizing’ or reconciling the traditional world views laid down by Pliny, Ptolemy, Aristotle and Ambrose with that of the new discoveries became increasingly acute. Each mapmaker tackled it de novo, so that scarcely any two world maps of this period provided the same world-view. Compare, for instance, this Catalan-Estense map (#246), the Walsperger world map (#245) and this Genoese world map, all of approximately the same date, ca. 1450. According to G.H.T. Kimble, there are at least three distinct influences, in addition to the portolan [nautical] chart tradition, that can be detected in these examples: Classical, Christian and Arab. Of these only the Arab influence is strong, while it is improbable that the Classical influence was direct. In the Genoese planisphere, the portolan chart serves as the pattern for the Mediterranean region, but elsewhere it is the Ptolemaic tradition which is most drawn from in terms of the delineation of basic elements. Practically all the features of the Sahara are similar to their territorial relationships and outlines to those on a Ptolemy manuscript of 1400 in the Laurentian Library at Florence. The same influence, though not the same slavish adherence, is apparent to the area south of the Sahara, where the author places a great gulf, containing an island and a legend, now barely visible, which reads: *Preter tolemei tradicionem hic est guffus sed pomponius eum tradit cun eius insula* [Contrary to the opinion of Ptolemy, this is a gulf, but Pomponius [Mela] speaks of it with its islands]. Or again, in another rubric:

Beyond the equinocial line Ptolemy records an unknown land, but Pomponius [Mela] and many others as well raise a doubt whether a voyage is possible from this place to India; [nevertheless] they say that many have passed through these parts from India to Spain . . . especially Pomponious in his last chapter.

This rather refreshing disposition towards agnosticism is exemplified again in the configuration of South Africa. Here the author does not follow the Alexandrine scholar in attributing to it an eastern prolongation and enclosing the Indian Ocean, but contents himself with rounding it off in the conventional medieval way, namely, in the form of a half moon. This opening of the Indian Ocean would provide additional incentive for countries like Portugal to increase its exploration of a sea-route to the Far East. The division of geographical loyalties at this period is further illustrated in the placing, side-by-side, of the Nile sources, located in the *Montes Lunæ* [Mountains of the Moon], after Ptolemy, and this typically medieval legend: *Some have represented the Paradise of Delights in this region, while others have said that it is beyond the Indies to the East . . .* The Genoese map is one of the first European medieval mappamundi not to depict the location of Paradise.

Also typical of maps of the period, the anonymously compiled Genoese map is covered with legends in Latin, castellated towns representing major population centers, princes on their thrones, and loxodromes from the portolan tradition. It is very carefully drawn, particularly the outline of the Mediterranean. However this map is unusual on
several counts from its contemporary medieval world maps. First is the unusual almond-shape compared to the more common round, disc-shaped and oval world maps of the period. Second is the fact that it is oriented with North at the top, a convention taken for granted today, but exceptional for the medieval period when East was the most popular, followed by the South (especially among the Arabs). Third, it has a scale, each division of which represents 100 miles. The title is rather difficult to decipher and recalls the Walsperger map (#245); an approximate translation is: *This is the true description of the world of the cosmographers, accommodated to the marine [chart], from which frivolous tales have been removed.*

This map, also known as the *Mappa Mundi 1457* and as *Portolano 1*, is now the property of the Italian Government, and is to be found in the Biblioteca Nazionale Centrale of Florence, being catalogued *Sezione Palatina No. 1 Plarrisfero Mediceo*. Coming from the de’ Medici’s collections in the Bibliotheca Palatina, this oval-shaped map embodies one of the most significant representations of cartography from the 15th century. The work is dated back to the second half of the 15th century, specifically 1457. However, the map is not well preserved, a fact due in part to careless handling, in part to its peculiar mounting which evidently is very old. To prevent the crinkling of the parchment, as would appear, it has been mounted on four boards of suitable width and of about half an inch in thickness, which boards have been adjusted to fold. In certain parts the colors are yet brilliant, though softened with age; in other parts they have almost disappeared, and nothing has contributed more to this destruction than the nibbing of part-on-part. Most of the names can be read with ease; some, however, with the greatest difficulty; while a few are no longer legible.

The *Genoese or Mappa Mundi 1457* is the work of a cartographer of Catalan origin, who created this magnificent document with the help of an illuminator, and possibly, of a copyist – all unknown. The work, which is written partly in Latin and partly in vulgar language, is executed on parchment and it exhibits vivid illustrations with lively colors
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such as white, light blue, green, red, and their different shades. The decorations feature a significant use of gold.

Both the iconographic and textual apparatus are significantly detailed: the seas are filled with fish, mermaids, and ships, whilst the dry land features perspectival drawings of cities, standards, rulers’ portraits, all realistically illustrated.

With over 300 toponyms, the Portolano 1 is one of the first documents bearing evidence of the increasing importance of sailing beyond the Mediterranean trading routes. The map clearly shows a deep interest in the possibility of navigation in the Mare Indicum [Indian Ocean], simultaneously revealing the dreams, hopes, and limitations of expansion and trade with the Indian civilization of mid-15th century.

This unsigned nautical chart, commonly attributed to the cartographer Petrus Roselli, who worked in Mallorca in the second half of the 15th century, is an interesting example of early “modern” portolan [nautical] charts. Although little is known about this item, its geographical accuracy and abundant information are remarkable. It combines inscriptions and pictures in a complete and accurate representation of the Mediterranean, northern Africa, and Europe, showing the geographical and cartographic knowledge available in 15th century Southern Europe.

The chart includes abundant iconographic details, such as cities, flags, and banners. As is customary in the charts of the time, we can see an interesting coexistence of real and mythical references, something that makes this map an important reflection of the geographical ideas dominant in Europe prior to the discovery of the Americas.

This Genoese map became the center of controversy in the 1940s when the Italian scholar Sebastiano Crino, suggested that this was a copy of the map that Paolo Toscanelli sent to the Portuguese court in 1474 and later but less certainly to Columbus, was a copy of it, touting the possibility of a sea route to India via the Atlantic. The evidence is purely circumstantial, though as mentioned above, the map would have been more encouraging to anyone hoping to circumnavigate Africa, and Crino’s thesis has had no other advocates. Crino claimed that it is of Florentine, not Genoese, origin; that the style of writing and certain other features definitely indicate that it was drawn by Toscanelli; and that it agrees closely with the letter sent to Portugal with the copy, so closely in fact that the letter is merely a commentary upon it. All these arguments, and many more, have been warmly, even acrimoniously, contested. Without an expert and minute palaeographical investigation, it is impossible either to accept or reject the attribution to Toscanelli, but Crino presented a case which requires further examination. On the question, of main interest here, as to the correspondence between the letter of 1474 and the map of 1457, it is possible, however, to form some opinion. The main objection to Crino’s thesis, according to G. R. Crone, is that the letter definitely refers to a chart for navigation, while the 1457 map is primarily a world map drawn by a cosmographer. Further, the Toscanelli chart presumably depicted the ocean intervening between the west coast of Europe and the ‘beginning of the East’. On the map of 1457, this ocean is split into two, and falls on the eastern and western margins. Though Crino raised many points of interest, he did not establish his case beyond reasonable doubt. Biasutti argued that the horizontal and vertical lines on the map are parallels and meridians taken from the world map of Ptolemy, and that the longitudinal extent of the old world approximately corresponds to his figure of 180 degrees. It is difficult to see, therefore, if this map of 1457 was similar to that sent to Portugal, where its importance lay, for this information was accessible to all inquirers. The interest of the cartographer seems more probably to have lain in Conti’s description of the oriental spice islands and the possibility of reaching them by circumnavigating Africa. His
work is clearly related, though not closely, to the great map of Far Mauro (#249), his contemporary.

According to the tradition of early modern nautical charts, the coastlines of the continents, full of place names, are accurately depicted, and a series of drawings indicate important cities, Genoa being the most prominently represented. A Genoese flag in the upper northwest corner of the map establishes this map’s origin, along with the coat of arms of the Spinolas, a prominent Genoese mercantile family. Oddly, there is no city view of Genoa [Janua], while Venice is represented by an impressive set of buildings. The map was made not for practical use but for display, probably in the library of the Spinola family.

A text on the map states its purpose: “Hec est vera cosmographorum cum marino accordata descriptio quorundam frivolis narracionibus reiectis 1457” [This is a true description in agreement with Marinos, having rejected the frivolous tales of certain cosmographers: 1457]. Much scholarly ink has been spilled over the meaning of this caption, particularly cum Marinos. It has been read to refer to Marino Sanudo’s map, to the knowledge of sailors (though ungrammatically), and to Marinos of Tyre. In support of the last idea, it is noteworthy that the map appears to extend 225° by 87°, the extent of the habitable world, according to him. What we now know about Marinos is mostly from Ptolemy’s criticism of him, but the Arab geographer al-Ma’sudi (#212) reported in the 10th century that he had seen Marinus’ geographical treatise. Gaetano Ferro suggests that the map copyist left out the word charta before marino (still ungrammatical), which would make the inscription read: “This is the true description according to the marine chart, having rejected the frivolous tales of certain cosmographers.” Certainly, the map tries to pull together not only the medieval tradition (however frivolous) but also Ptolemaic geography and the world of the nautical charts.

This chart is made on a single piece of parchment, and measures 61 x 90 cm. Oriented to the north, it portrays Europe and northern Africa, from Norway to Morocco, as well as the Near East and the British Isles. Nevertheless, if we look at the rhumb lines on the bottom of the chart, as well as the representation of Africa, interestingly it seems that the chart has been cut at some point.
The map is elliptical in shape, having a major axis measuring 81 cm and a minor axis measuring 42 cm. It therefore indicates the longitude of the habitable world as about twice that of the latitude. It is, however, but mere conjecture to assert that our draughtsman had a Marinus map before him while working out his sketch, though it conforms to the geographical notion of that ancient cartographer. This abandonment of the more common circular form enabled the cartographer to show features that were increasingly squeezed on 15th century mappaemundi. Jerusalem does not appear in the center of the map but is considerably to the west of a center located south of the Caspian Sea. The highly pictorial character of this well-preserved map leads us to think of it as more traditional than it actually is. Oversized crowned or turbaned kings, monstrous and simply exotic animals, an elephant bearing an elaborate howdah, and scary sea monsters associate with more scientific signs, such as flags and city symbols. Inscriptions on the map, as well as recently discovered geographical features, however, proclaim the map to be a document of cartographic thinking similar, if not as large and ambitious, to that of Fra Mauro (#249).

The oval form is not unknown among medieval maps. Hugh of Saint Victor had described the world as being the shape of Noah’s Ark, and Ranulf Higden world maps were oval (#232). A standard way of describing the earth, from Bede to the 1375 Catalan Atlas (#235), was to compare it to an egg. The main purpose of the analogy seems to have been to describe the various spheres surrounding the earth (egg white, shell), but the idea of an egg shape could have been derived from these works. Another possibility is that the oval form represents the mandorla, or nimbus, which surrounded Christ in many medieval works of art. In the 14th century didactic poem, “Il Dittamondo” Fazio degli Uberti, described the inhabited world as long and narrow (“lungo e stretto”) like an almond (mandorla), with no apparent religious significance. Ptolemy’s maps, while not exactly oval, were wider from east to west than they were high (north to south). For a 15th century mapmaker, this form made convenient room for discoveries in the Atlantic and in Asia. By the end of the century, the circular form was becoming impractical, and once the Americas were added to world maps, it was gone almost completely.

Ptolemy is cited by name in several inscriptions, and there is evidence of his influence in the representation of Africa (Ethiopia, the source of the Nile), an enclosed Caspian Sea (Mar de Sara), the southern coast of Asia, and the Golden Chersonese, not named but identified by a legend noting that it is particularly rich in gold and precious stones.

As mentioned above, Paradise does not appear on the map, and an inscription in southeastern Africa tells us why: “In this region some depict the earthly paradise. Others say it is beyond the Indias to the east. But since this is a description of the cosmographers, who make no mention of it, it is omitted from this narration.” Who are the cosmographers, who also appeared in the caption cited above but in a more negative context? The reference seems to be to the geographers of the classical world. The title of Ptolemy’s work, as it circulated through Italy in the 15th century, was usually given as Cosmographia rather than Geography, a less familiar Greek term. Certainly, neither Ptolemy, Pomponius Mela, nor Pliny had given a location for Paradise, save for fantasies about the Fortunate Islands cited by Pierre d’Ailly, and the Genoese mapmaker appears to associate classical with scientific geography.

Of course, the cosmographers had no objection to monsters - even Ptolemy mentions a few, although he did not put them on his maps. It is interesting that the maker of the Genoese map mentions peculiar customs (cannibalism, people who have no names) but no “monstrous races,” that is, people with aberrant physical characteristics, other than the pygmies. On the other hand, he is happy to include pictures of bizarre animals. In the Indian Ocean are shown a mermaid and a fish with a devil’s head, while on land nearby is
a snake with a human head. In northern Asia is a very large griffin, while a couple of
dragons appear in Ethiopia. These fantastic creatures join other wonderful but real animals,
such as a giraffe, a leopard, a crocodile, two monkeys, and a swordfish.

Some standard features of medieval mapamundi are, however, also present. Gog
and Magog are found (separated) in northeast Asia, Noah’s Ark rests on a mountain range
in Armenia, and the Red Sea is red, though there is no text about the passage of the
Israelites through its waters. We can also find Mount Sinai, and the tomb of Saint Thomas
in India. Prester John is represented behind a wall, protecting him from the future rampages
of Gog and Magog. As we might expect from a Genoese map, good use has been made of the
nautical chart as well. The Mediterranean, Black, and Atlantic coasts reflect the forms. A
partially finished network of rhumb lines appears on the map, and on the right are two
scale bars, though they are more a sign of intention than reality.

Although its cartographer explicitly disapproved of fantastic narratives in a legend
in the Atlantic (frivolis narracionibus rejectis), Chet Van Duzer points out that the richly
decorated map contains a number of fantastic illustrations, and the legends, many of which
come from the travel narrative of Niccolo de’ Conti (c.1395-1469), do not shy away from
fantastic subjects. There are four prominent sea monsters in the Indian Ocean, which ocean
thus remains a venue for exotic wonders. There are three monsters in the western and
central part of the ocean: a composite porcus marinus or sea hog (a pig with a fish’s tail) off
the eastern coast of Africa, which the legend compares to a terrestrial hog (this animal,
called the sea hog, gathers its food with its snout like the land hog); a siren which is
unaccompanied by a legend; and a fish with a human face and a large spiky red crest on its
head, which the legend explains is a serra. This monster is said to attack the ships of the
Indians, usually breaking them immediately, but its crest can get stuck in the ship’s wood
and as a result the creature, unable to escape, kills itself.

The cartographer was particularly interested in the Indian Ocean. “In this sea they
navigate by a southern pole star, the northern having vanished,” he quotes from Niccolo
de’ Conti. He goes further; in one of the great mysteries in the history of cartography, he
depicts a three-masted carrack sailing the Indian Ocean, about forty years before the first
voyage of Vasco da Gama – who had carried letters of introduction to Prester John with
him – created a sailing link between Europe and India. In the eastern Indian Ocean there is
an imposing creature with a humanoid head and upper body, but with large horns and ears
and wing-like red membranes joining its outstretched arms to its torso, and a fish-like tail.
The legend says that the creature sprang out of the water and attacked some cows
pasturing on the shore, and then was captured and mounted and exhibited in Venice and
elsewhere. Angelo Cattaneo has identified the source of this legend as Chapter 18 of Pero
Tafur’s Andanças e viajes de Pero Tafur por diversas partes del mundo avidos, written c. 1453-54.
Van Duzer adds that Tafur’s account derives from Poggio Bracciolini’s Facetiae, written
between 1438 and 1452, which describes a very similar monster that attacked some women
by the seashore, and was killed and exhibited in Ferrara. Illustrations of the monster which
are very similar to that on the 1457 Genoese map accompany excerpts from the Facetiae
which are appended to various 15th and 16th century editions of Aesop’s fables. One such
edition is Sebastian Brant’s Esopi appologi sive mythologi cum quibusdam carminum et
fabularum additionibus (Basel: Jacobus de Phortzheim, 1501), in which Bracciolini’s text about
the monster is cited and accompanied by an illustration of the monster quite similar to that
on the 1457 Genoese map. The Genoese map’s sea monsters reflect the cartographer’s interest
in exotic wonders, which is everywhere in evidence on the map, and typical of the scientific
outlook of the early modern period, which was driven by curiosity and took a great interest
in marvels. The demon-like monster in particular is evidence of the cartographer’s research in recent travel literature to find sea monsters for his map.

The Indian Ocean on the Genoese map displaying various monsters, a mermaid and a sea hog, a siren, a three-masted ship, etc.

EUROPE
Turning first to Europe for a consideration of the details of the map, it will be noted that the contour of this continent is drawn with a nearer approach to accuracy than is true of the other continents, our cartographer’s greatest errors appearing in the regions which were beyond those recorded by Ptolemy and the portolan chartmakers. By reason of the limited space, the geographical details inserted in this section of the map are not numerous; indeed, of no part of the map can it be said that the author has crowded it with details.

The only mountains indicated in Europe are the Alps, which are made to sweep in a somewhat irregular curve around the north of Italy and the head of the Adriatic. The Rhone, the Rhine, the Po and the Danube Rivers—the latter with an extensive delta—have been inscribed in a manner which leaves no doubt as to their identity, while into the Black Sea, which with the Sea of Azov is well drawn, flow the rivers Don and Dnieper, and into the Caspian Sea flows the Volga, though no names are affixed.

In the northern part of Europe we find sketched a polar bear [Forma ursorum alborum], and an ermine or sable, animals whose valuable pelts were obtained by the Hansa of Novgorod and sold by them in Bruges to the Italians. Here we also find the representation of a ruler, Lordo Rex with genuine Mongol features, the chief of the Golden Horde. Between the Dniester, at that time the western boundary of the Mongol empire, and
the Dnieper Rivers is the city Lordo, a name that often appears in references to treaty relations established between the Mongols and the people of the Occident. It was the military camp of the nomads of Asia. Between the Dnieper and the Don Rivers the author has made a suggestive reference to the custom of that migratory folk of transporting their houses about with them on wagons drawn by oxen, a custom also attributed to the early Teutons and the Huns. Such a wagon with driver and oxen, rather crudely sketched, is represented moving eastward, near which appears the legend, Ubi lordo errat [where Lordo wonders]. A good picture of a Mongol appears on the eastern shore of the Caspian Sea, and also one west of the Black Sea, being drawn about the time of the destruction of their rule. The Italians were then in close relations with the Golden Horde from Moncastro, Kaffa, Sudak, and Tana as centers, and were, therefore, in a position to know intimately their customs and manner of life.

Many regional names appear and many cities are made prominent in each of the continents through the sketch of a building, which building sometimes is a castle, sometimes is a church or cathedral, sometimes is a monastery. Regional names conspicuous in Western Europe are Portugal, Hispania, Arago, Catalonia. Here we also find Lisbona, Sibilla, Taragona, Barcelona, Saragosa, and a few other names which are illegible.

England, Scotland, and Ireland are represented as on the portolan charts of the period, over each of which flies a pennant. To the south of Ireland, in the ocean, we find the following legend: Concerning Ireland two [stories] are told. One of these [asserts] that there is an abyss called the well of St. Patrick through which one descends into the lower regions. In this [well] the inhabitants often see many wonderful things and tell about them. The other [story relates] that certain of their trees bear fruit which, decaying within, produces a worm which, as it subsequently develops, becomes hairy and feathered, and, provided with wings, flies like a bird.

In France appear the names Gascona, Lengadoc, Normania, Baiona, Bordeaux, Tolosa, Narbona, Montpellier, Arguemsorres, Avenio, Massilia, Lion, Dijon, Bourges, Renes, and a few undecipherable names.

In Italy we find Italia, Masca, Calabria, Sicilia, Sardinia, Corsica, Niza, and Venezia, which last our author has made especially prominent, while Genoa itself has been omitted altogether. The names of nine cities in addition are given in northern Italy: Florentia, Ravenna, Ancerra, Borelta, Bor[j], Rana, Gatta, and Napoli, with one illegible.

In central and eastern Europe we find Bavaria, Boemia, Prutenia, Bruges, Dancic, Famosura [Frankenberg?], Poana, Praja, Ratisbon, Inbrunch, Vienna, Pruna, Potavia, Ungaria with Juanin (Raab), Burgaria, Polonia, Carcovia, Rossia, and near this last the classic names Sormatia prima and S. secunda, the first for the land between the Dnieper and the Don Rivers, the second for the region east of the Volga River. On the lower Volga lies the city Sara and also Saratellis. Sara was the capital of the Kipchak, and in the 14th century was a city of great importance, but in 1395 was destroyed by Timur. Saratellis, if this is a correct reading of the name, is probably the Saracanco of Balducci Pigolotti. According to Pigolotti, Sara could be reached in a day by water from Astrakhan, Saracanco in eight days by water or by land.

We also find the region Zichia designated on the north and northwest slope of the Caucasus, and, on the Black Sea, Savastopoli, Kaffa, Pidea, Flordelis, Turlo and Moncastro.

On the Hellenic-Slavic peninsula we find the names Sclavonia and Albania, which had but recently withstood an attack of the Turks; here also are Macedonia, Grecia and Morea. Of the cities in this region we find represented Varna, especially distinguished by reason of the battle of 1444; Vicina (Widdin), often mentioned in the records of the battles of that period; Belgrade, which likewise after 1440 suffered from repeated attacks of the Turks;
Enes (Enos) and Galipoli, which was on the highway of the Turks in their marches westward into Europe; also Salonichi, with two additional but undecipherable names in Greece. From the names given which so frequently appear in the history of the period that of Constantinople is omitted.

ASIA
The outline, particularly in Asia, is largely Ptolemaic. After the Alexandrian, the second main authority for the eastern portion is Nicolo Conti, the Venetian traveler, who reached the East Indian islands and perhaps southern China, returned to Italy in 1439 and whose narrative was written down by Poggio Bracciolini shortly after 1447.

The details from Conti's narrative make a considerable showing: e.g., the large lake in India between Indus and Ganges of a marvellous sauerie and pleasaut water to drink, and all those that dwell there about drink of it, and also farre off . . . the island Xilana [Ceylon/Sri Lanka] to the east of the peninsula; the great city Biznigaria, representing the Vijayanagar kingdom of southern India, which occurs in most late 15th century accounts, but here sadly misplaced near the Ganges; the details of the nature of the Ganges delta; the addition of Scynamutha [Sumatra] as an alternative name for Taprobana. The name Sine, for China, was also probably taken from Conti. Longer legends take material from Conti on the funeral practice of wife burning (“if they refuse out of fear, they are forced to do it”), the cultivation of pepper, the collection of human heads in Sumatra, the sea-tight compartments of Chinese junks, the practice of tattooing, and the availability of spices and multicolored parrots.

But it is perhaps in respect to the islands of the southeast that the map is of greatest interest. In the extreme east are two large islands, Java major and Java minor, and to the southeast two smaller islands Sanday et Bandam. All of these are taken from the Conti narrative: Java major is thought to be Borneo, and Java minor the island now known by that name. Though the names Sanday and Bandam have not been satisfactorily explained, the reference in the legend to spices and cloves makes it fairly certain that they are islands of the Moluccas group. Here a legend reads: These islands are called Sanday and Bandan. Sanday sends saffron, nuts, muscatas, and maces to the Javas, Bandan an abundance of cloves. The inhabitants of both are black. Bandan, moreover, has parrots of three kinds: red ones, those of variegated color with yellow beaks, and white ones the size of hens. If this is so, this is the first time that the much sought after spice islands appear clearly on a map. Conti describes them as lying on the extreme edge of the known world: beyond them navigation was difficult or impossible owing to contrary winds. In the southern sea there is a note: In this sea, they navigate by the southern pole (star), the northern having disappeared. This also is taken straight from Conti. However, Conti did not himself visit these islands, though he gives their position as fifteen days’ journey east of Java major and minor, to which their products were brought for transportation to the west. Cloves at that time came only from the small islands of the Moluccas lying west of Halmahera, which perhaps the Genoese author has attempted here to represent. The name Sanday is unknown, and Bandan is only a corruption, and should not be confounded with Banda, as cloves do not come from that island. The negro populations of these islands are those driven out by the Malays, that is, they are the original black inhabitants of the Malay Archipelago, who in Conti’s account are referred to in European literature for the first time, and who are now generally spoken of as the Asiatic Papuans, or Negritos. The first European who actually visited the Moluccas was the Italian Varthena, about seventy years after Conti’s expedition to the East. The islands were considered as lying on the boundary of the habitable and known world, and as marking the limit of navigation.
It is not easy to determine the significance of a gulf that extends far into the east coast of Asia north of Borneo and Java. The gulf forms the boundary between China (Sine) and the forest region of northern Asia. On the southern shore near the mouth of the gulf lies the city Pauconia. If we have here an attempt at a representation of the Gulf of Siam, the city Pauconia is probably Bangkok. We may have in this gulf one of the earliest cartographical representations of the Yellow Sea and the Gulf of Petchili.

The name Sine, or Sina, which was never used in the Middle Ages, and which in all probability the Genoese map-maker took from Ptolemy, suggests that the gulf is likewise from Ptolemy, and in order to find space for the new discovery it has been placed farther north.

The northeast coast of Asia is in part determined by the form of the map, and in part is arbitrarily drawn, as are also the numerous islands, not one of which we are able to identify. In the Indian Ocean there are legends and mythical animals. West of the Golden Chersonese is an animal with the tail of a fish, a humanlike head and large horns and ears, with outstretched arms so attached to the body as to make them serviceable in flying or swimming. A legend gives the following information: This species of fish, recently [caught?] in Candia, feeds upon the meadows of the shore like cows. It was captured and exhibited to the Venetians. It was mounted and carried about to many parts of the country. The reference appears to be to a marine animal, perhaps the dugong, which, resembling a cow and accustomed to
graze in the fields along the seashore, was captured in the East and brought to Venice. That rare animals at the time of the construction of our map were brought to Italy, where they were viewed with astonishment by the natives, certain observations of Benedetto Dei bear witness. Mention may be made of the peacock which he brought from Alexandria for Cosimo de Medici; also of a chameleon, and, more important than all, of a big serpent with 100 teeth which he seems to have brought to Florence from Beirut (possibly a reference to the crocodile).

The Genoese map abandons the northeastern quarter of Asia to the apocalyptic peoples: surrounded by impassible mountains and in the north and east by the ocean is a large territory in which are placed trees and fortresses. In this enormous prison, labeled Scythia ultra Ymaum montem [Scythia beyond Mount Ymaus], is the word MAGOG in large letters (perhaps in Ezekiel’s sense as a country?). Heinrich Wuttke (Karten der seefahrenden Volker) provides a transcription of the captions in the margins and in the figure. The relevant ones here read (in the west): “From this people, that is from the tribe of Dan, Antichrist or [...] will be born, who, opening up these mountains by means of nefarious arts [...] will come to the mountain chain that encloses them”; in the north-west: “Up to here live the ten enclosed tribes of the Hebrew race.” In the southwest corner is a tower and a wall, underneath which is the caption “The iron gates where Alexander enclosed the Tartars”. The Jews and the Tatars are in the foreground here. Magog (Gog is located elsewhere), the Tatars, the Ten Lost Tribes, the Antichrist and the Alexander story are mixed as though they naturally belonged in the same place - as they by then did, at least in the literature and exegesis directed to the literate but not learned.

In addition to the usual medieval depiction of the mythical Gog and Magog the Genoese map also contains a large number of drawings of zoological interest. Elephant, camel, lion, monkeys, giraffe, dragon, and crocodile appear in what Wilma George terms the Ethiopian region; griffon or black vulture, leopard, ox and polar bear appear in the George’s Palearctic regions; and snake and storks appear in George’s Oriental region. This was the first time an accurate giraffe had been drawn on a map in Africa, although camelopardalis had appeared much earlier in the same area in the Ebstorf map (Book II, #224). Camelopardalis, however, was only a giraffe by name, being a four-clawed spotted animal with normally a short neck. Giraffes had been known and drawn accurately at least as far back as the third century B.C.

The main African interest lies in the fact that, as a departure from Ptolemy’s conception, the Indian Ocean, as is also shown on the Vesconte, Bianco, the Catalan-Estense, Leardo and Fra Mauro’s maps (#228, #241, #246, #242, and #249), is not landlocked, and, significantly, the southern extremity of Africa does not run away eastwards, as on the Catalan-Estense map. At first sight, it is not clear that Africa is completely surrounded by the ocean, but closer examination shows that the blue of the ocean and the red on the land have faded, and that a definite coastline had been originally drawn in. This detail would be encouraging to anyone who wanted to promote the exploration of a new sea route to the Indies.

The southern coast of the continent, from Arabia and the Persian Gulf to Further India, exhibits the Ptolemaic influence in particular, though our Genoese gives evidence of possessing a good knowledge of some of the most recent reports of travelers. The remarkably strong ebb and flow of the waters in the Persian Gulf at the mouth of the Euphrates and Tigris Rivers, observed by Conti, is thought by the Genoese cartographer worthy of mention: Sinus persicus in quo mare fluit et refluit velut oceanus [The Persian Gulf, in
which the sea ebbs and flows as in the ocean]. Such a map record seems to appear here for the first time.

The peninsula Guzerat is better drawn than by Ptolemy, and the Bay of Cambay appears as a deep inlet of the ocean into which a broad river—perhaps the Mahi—empties. This section of the coast could not well remain unknown to travelers coming from the mouth of the Indus River. In the place of Ptolemy’s Taprobana two islands are represented, the larger of which, though appearing in outline to be Taprobana, is rather to be taken as a representation of Sumatra, while the smaller bears the name Ceylon. A legend near this reads: The island of Ceylon, having a circumference of three thousand miles, is rich in rubies, sapphires, and cat’s-eyes, and produces cinnamon from trees similar to our willow tree. In this island there is a lake, in the middle of which is a noble city whose inhabitants, given over to astrology, predict all future events. The position of Ceylon was now well known, being here placed to the east of a peninsula that we can recognize as the southern point of India. In this as well as in other parts of extreme southern Asia the Geonoese cosmographer seems especially to exhibit an acquaintance with the record of the distinguished Italian traveler Nicolo di Conti who referred to Ceylon as Zeilan.

The lake mentioned above in the interior of Ceylon may owe its origin to a statement made by Pliny or maybe an attempt to represent some one or more of the numerous artificial reservoirs or tanks for which the island is famous.

In their outlines there is a certain similarity between the islands Ceylon and Sumatra as represented by our Genoese mapmaker and the same islands as they appear on the maps of Ptolemy. The somewhat lengthy legend here reads as follows: Of the islands which are known, Taprobana is said to have a circumference of more than sixteen hundred miles, next to which is Anglia, then Java the Greater and Java the Less: after these islands Ceylon, then Sicily, and after this Sardinia, and following in order, Corsica, Cyprus and Candia. The inhabitants of this Taprobana, which in their language is called Ciamutera, are barbarians, having large ears in which they wear ornaments, and they dress in linen clothes. They are all idolaters. They have an abundance of pepper, camphor and much gold. The pepper tree when it bears has seeds like the juniper. Cannibals inhabit a part of this island, who, continually waging war with their neighbors, make a collection of human heads as treasures, and he who has the most heads is the richest. This description of Taprobana appears clearly to have been taken from Conti, and it is very interesting to observe that our cartographer, not in a very successful manner, has attempted to bring the report of Conti into accord with Ptolemy. Ptolemy’s Taprobana, by which we are to understand Ceylon/Sri Lanka, is to our author Sumatra, as the legend above indicates, and near by he places his Ceylon, although Conti expressly states that with favorable wind he traveled in twenty days from Ceylon to Sumatra, leaving Andaman, inhabited by cannibals, on the left of his course.

The name Sumatra, which our cosmographer, together with Conti, considers to be the native name, seems first to have become a more or less familiar one in Europe in the 14th century. In the story of Ibn Batuta it appears as the name of a city; Odorich of Pordenone refers to it as the name of a locality; while in the story of Conti for the first time it clearly appears as the name of an island. According to a conjecture of Yule, the name Sumara, which appears in a manuscript of Marco Polo as the name of one of the kingdoms of the island, is only a corruption of Sumatra. Marco Polo, the first traveler from the west who seems to have brought definite word from Sumatra, called it Java the Less, under which name, however, according to the Genoese cartographer, we are to understand Java or Borneo. Conti gives to the island a circumference of about two thousand miles, as does Marco Polo, which is very nearly correct. In its outlines Further India, UltraIndia (Southeast
Asia) is Ptolemaic, a fact which is especially noticeable in the very prominent peninsular character. It stretches toward the south, terminating in a prominent Golden Chersonese, a name which the legend suggests: *Here gold is found in abundance with jewels and precious stones.*

The long southern coast which, according to Ptolemy, makes of the Indian Ocean an enclosed sea, and which in part appears in the Idrisi and the Sanudo maps (#219, Book II, #228), has been omitted here, and the great gulf of Ptolemy on the east of the peninsula becomes in the Genoese map an open sea, corresponding to the account of Conti and other travelers, which sea had been found difficult of navigation because of continually unfavorable wind.

Concerning the two large islands lying off the east coast of Asia, a legend gives the following information: *These islands are called Java, of which the greater in circumference is three, and the other two thousand miles. They are one month’s journey from the continent, and are one hundred miles apart. Ignorant and wicked men inhabit these islands, who think it sport to kill a man. They have as many wives as they wish.*

Marvelous beings are represented in parts of the Indian Ocean, such as an animal with the body of a fish and the head of a woman, that is, a siren; also a fish with a humanlike head and large fins with sharp spikes thereon. Near this monster is the legend: *Pliny enumerates 144 species of fishes, and among them he describes this swordfish, asserting that, with its swordlike beak, it often transfixes the ships of the natives of India by single attack; but when this fish becomes fast within [the ship’s side] and is unable to escape, it kills itself.*

Of particular importance are the other legends in the Indian Ocean apparently derived from Conti. One of these reads: *In the South Polar Sea they navigate with the North Pole not in sight.* The other legend, near the picture of a three-masted ship, reads: *The Indian Sea is filled with many islands, rocks and sand-banks. Their ships, therefore, are constructed with many compartments, to the end that if they are broken in any part, the remaining parts may be sufficiently strong to complete the course. These, moreover, are supplied with several masts, from three to ten, and having sails made of reeds and palm-leaves joined together, they pursue their courses with great rapidity. And these [ships], loaded in particular with spices and other aromatics, sailing rather often to Mecca in Arabia, trade with the Western merchants through an exchange of their goods.*

We find on other world maps similar information concerning the construction of ships which sailed the Indian Ocean, as well as information concerning trade routes, such as the Catalan Atlas of 1375 (#235). The legend on the Genoese map relates in part to the Chinese junks, in part to the trade with India, which in the 15th century was in the hands of the Arabians, from whom the Portuguese seized it. Chinese junks, after an interval of five hundred years, again sailed the Indian Ocean at the end of the 13th century. Marco Polo, who, on his homeward journey, sailed in one of them as far as Malabar, gives us a detailed picture of these boats.
Ibn Batuta also describes them minutely, making mention of ships that could carry a thousand men—six hundred seamen and four hundred soldiers. Such ships were much larger than those that sailed the Mediterranean. In addition to the sails, which were made of bamboo matting and attached to four or more masts, these Indian ships had rudders, which were handled by from ten to thirty men. The larger vessels also carried small boats, which were used, as Marco Polo states, “to lay out the anchors, catch fish, bring supplies aboard, and the like. When the ship is under sail, she carries these boats slung to her side.” Many of the vessels had as many as four decks, and even the smaller ones, fifty or sixty cabins. Vegetables, we are told, were sometimes grown on board.

The river and the mountain systems of Asia have many peculiarities. Near the Persian Gulf in Arabia a mountain is represented, out of which flows a river, emptying north of Mecca, which doubtless is the Betius of Ptolemy. Diagonally across the northern part of the peninsula stretches a mountain range. Mons Synai, near the northern border of the Red Sea, is represented, on the summit of which is the Convent of St. Catherine; and we also find here the highlands of Armenia, out of which flow the Euphrates and Tigris, these highlands being especially distinguished by a representation of Noah’s Ark. In Syria, to the south of Damascus, Mare Tiberiadis appears as a large lake. In the Gulf of Iskanderun a river empties, flowing out of the northeast, recognizable as the Dschihan, on which lies the city Antioch. The Caucasus stretches across the isthmus between the Black and the Caspian seas, and as numerous rivers rising in the Caucasus empty into the former, the mountain range had to be drawn nearer the Caspian Sea in order that there might be sufficient space for the range and the representation of the Iron Gate near Derbent. This city is distinguished by a strong tower and the legend: This is Derbent, which in their language [means] a gate of iron. The Iron Gate, usually associated with Alexander the Great and the apocalyptic people, Gog and Magog, has an important place on the world maps of the Middle Ages. Doubtless it was the medieval wall stretching from the mountains to the sea near Derbent, closing the
road along the Caspian Sea to the peoples of the steppes on the north, that called forth the legend of the Iron Gate. The city itself, Derbent, was founded in the Middle Ages by the Persian Sassanids, for the purpose of guarding this pass. The word is Persian, signifying gate or narrow pass, and is a name often met with in Persia. In Arabic the city is called Bab-el-Khadid, in Turkish Demir Khapussu, that is, Iron Gate. The wall stretching landward along the mountain ridge is yet, in part, well preserved, and one can follow its ruins for a distance of many miles. According to popular tradition, it extends along the entire ridge of the Caucasus, and so it appears on this map extending from the second iron door, or pass, across Asia. A legend on the map of the Pizigani makes it clear that the wall from Derbent was originally constructed to protect the Persian territory from the people of the steppe region. One of the castles on this map is distinguished by the legend, “Hic est custodia husbeci [Khan Usbech]” [here is a guard husbeci]; the other by the legend, “Caiob est custodia buns [Khan Bunsay of Persia]” [the custody of the Buns]. This narrow pass between the steppes on the north and the cultivable regions on the south has been especially significant in all periods and is probably recognizable as the Sarmatian Gate of Ptolemy.

As has been said, the Caspian Sea is drawn according to Ptolemy. It is rich in islands and is called Mar de Sara, after the principal city of the Kipchak. Marco Polo called it the Sea of Ghel, or Ghelan, since Gilan, the city whence silks came, was to the Italians the best-known city on its shores. Aside from the Volga and the Ural, two other rivers are here represented, rising in a range of mountains that extends in an east-west direction. One of these is perhaps the Emba, the other the Jaxartes of Ptolemy. South of the Caspian Sea we find a quadrangle framed by mountains that appears to be Parthia, according to the representation of Ptolemy.

A river taking its rise on the east side of this mountain quadrangle, and emptying through two mouths into the Indian Ocean, cannot be identified, as the chart here contains
numerous errors. It may be a representation of the *Hilmend*. A mountain range farther eastward, and stretching in a northeast-southwest direction, is the east Iranian mountain range, along which flows the Indus. This river forms through its four outlets a conspicuous delta, and receives from the neighboring mountain range two tributaries. From the mountain range on the northern border of *Parthia*, a great range stretches diagonally across the entire Asiatic continent, to the gulf indicated on the east, to which gulf reference has been made. It divides the great forest region of northern Asia from southern Asia. These mountains clearly are the *Taurus*, *Paropamisus* and the *Emodas* of Ptolemy, the continental axis of Asia, that is, the Hindu Kush, the Quen Lun, the Nan Schan, and the other border mountains of eastern central Asia today, which in their spurs reach almost to the Gulf of Petchili. The Ptolemaic *Imaus*, which divides *Scythia* into *Hither* and *Further Scythia*—*Scithia citra ymaum montem* and *Scithia ultra ymaum montes*—is very prominently represented on our map. It branches in diagonal directions westward of the sources of the Indus, that is, nearly twenty degrees farther westward from the continental axis than it is represented by Ptolemy.

It is of special interest that in a region so significant by reason of its physical features, where the Pamir Highlands, the Hindu Kush, the Himalaya and the Quen Lun unite, our cosmographer represents a second *Iron Gate where Alexander imprisoned the Tartars*, or a wall with a strong gateway. This is doubtless one of the passes lying somewhat to the west, where *Scythia* on the north joins with the highlands of Iran, and is probably the Khyber Pass. Here was a national highway over which, immediately preceding this period, the wild people of central Asia so frequently came into southern Asia. Indeed, from the most ancient times this important highway was the connecting link between northern and southern Asia, and its architectural ruins—the fortifications erected by the different peoples at different times—point to its significance. Very properly, the name of Alexander is associated with it, since through his founding of *Alexandria ad Caucasum* the southern region was secured against the attack of the northern barbarians, the *Scythians*, who, in the language of the Middle Ages, were called *Tartars*. The Genoese cosmographer must have had information concerning the numerous towers scattered here and there over this pass. As in questions relating to the Nile, Ptolemy showed himself to be better informed than were geographers of later date, even to very recent times, so it also appears that his representation of the mountain systems of Asia, though somewhat altered by our author, was remarkably well done in the larger general features. Herein in particular does the value of the Genoese map appear in a comparison with the larger map by Fra Mauro (#249), although the latter is richer in details. In the representation of the Indus, for example, with its five branches, our author follows Ptolemy. In the region at the foot of the mountain between the Indus and the Ganges we find the Indian desert represented. In contrast, the Ganges is represented according to recent information, that is apparently from the record of Conti. It receives its water through three tributaries from the great watershed. Two of these tributaries on the left seem to be the Brahmaputra and the Barak, though the larger one on the north may be intended as the Irawadi, since on this lies Ava, and above it is a legend taken from Conti: *Rather the Ganges which otherwise is called the Davi*. Though our cosmographer makes certain mistakes in relation to the chief stream of India, yet his representation of the hydrography of Asia is near the truth, and, as stated, is much better than that given by Fra Mauro. As the Indus and its delta received special consideration, so also did the Ganges, the mouth of which is marked by the following legend: *The mouth of the Ganges River, the width of which is fifteen miles, on whose banks grow canes so large that they*
exceed the size of the arm, and the islands grow nuts which we call Indian. This legend is also taken from Conti with some modification.

In the interior of Southeast Asia there is a large lake with the legend: The waters of this lake are very pleasant and sweet for drinking. This lake, mentioned in the fabulous stories concerning India in the Middle Ages, is, again, derived from Conti. In these rather remarkable sketches we probably have a reference to the lakes of Udaipur and Dbar on the southern highlands of Mewar, which lakes in fact lie between the Indus and the Ganges. As lakes are rare in central and northern India, these enjoy a considerable reputation. They owe their origin in part to artificial dams, and serve the purpose of reservoirs for artificial irrigation. They are remarkable for their natural surroundings, and for the palaces of the rulers of Mewar erected on their banks. This statement concerning the lakes as represented on our map is supported by the fact that a mountain appears to the southwest, from which a river flows to the south, at the mouth of which lies Cambay. The river is probably the Mahi, and the mountain the Salamber range. The river Ava, as well as the southern parallel tributary of the Ganges, and the two Chinese rivers, the one flowing to the southeast and the other to the northeast, come from a mountain which is further explained by the legend: In this mountain carbuncles are found. Judging from the rivers that spring there from, and from this legend, we are led to conclude that the mountain-land is eastern Tibet. The representations of our cosmographer are here very erroneous, and the errors may perhaps be attributed to Conti and Poggio, since one is led to conclude by a careful study of the Conti narrative that it is not simply the story of a practical merchant traveler, but a story often adorned by the additions of a learned copyist. The Carbuncle Mountains and the art of obtaining these valuable stones play an important role in the records of all cosmographers of the Middle Ages. On the Catalan world map of 1375 (#235) appears a legend with an interesting pictorial representation. A mountain is indicated with a deep valley out of which a bird flies, having a piece of meat in its beak, and out of the same valley a river flows which in its course forms the boundary between India and China. These mountains are often represented on early maps with legends referring to carbuncles or to diamonds. From Maharatia, Conti states that he made a thirteen days’ journey eastward to the Carbuncle Mountains, that is, to the border mountains of Burma, which the Genoese mapmaker attempts to represent.

Marco Polo relates a similar story, but adds, as does Conti, the simple facts that he himself observed, that is, that diamonds are obtained in India through mining and through the washing and the sifting of the sands. The legend referred to is very old and is known in many different countries. Yule refers to it as one known in the fourth century of the Christian era, in which allusion is made to the hyacinth or jacinth. It was one known to the Byzantines, to the Arabs, and to the Chinese, but it seems to owe its origin to India.

No rivers are represented by the Genoese cosmographer in Northeast Asia, but we find twice inscribed the legend Inaccessible mountains. In the extreme northwest, in genuine medieval fashion, a leopard and a griffin have been sketched. In Turkestan is the legend King Cambellannas, son of the great Khan, by which legend is probably meant Timur, who reunited the numerous small kingdoms into which, about 1350, Dschagati had fallen. King Cambalech, that is, the Great Khan, is represented in a picture as ruling Cathay, and the King of India is represented on horseback with sword in hand. Northern Asia is properly made to appear as a region covered with pine forests, a representation which is to be found on no other early world map, and which seems to suggest that the Genoese mapmaker was in possession of somewhat detailed information concerning the character of the region. In the extreme north appears the figure of a man casting himself into the sea, whose act is
explained in the following legend: *It is the custom of these people, as old age comes on, to cast themselves from the steep precipices into the sea.* This information seems to be derived from Pliny. Even today in northeast Asia, there may be found a people among whom suicide is common, the result of a belief that should one depart this life before the feebleness of old age comes on, a life of happiness in the hereafter is secured. Two legends are here inscribed, the one relating to the medieval geographical myth concerning the ten lost tribes of Israel, and the other to Antichrist. The one to the east of *Inaccessible mountains*, designated here as *Ymaus mons*, reads: *From this race, that is, from the tribe of Dan, Antichrist is to be born, who, opening these mountains by magic art, will come to overthrow the worshipers of Christ.* The other reads: *Here dwell the ten lost tribes of the Hebrew race with the half tribe of Benjamin, who, unrestrained by their law and being degenerates, pass an epicurean existence.*

On their appearance, the Mongols were thought to be the descendants of the Ten Tribes who had departed from the Mosaic law; and even in the Mohammedan world their coming was regarded as a sign of the approaching end of the world. In this part of Asia the cosmographer places the land of *Magog*, whence Jews, Mohammedans, and also Christians of the Middle Ages, expected the coming of the destructive races at the last day. On most of the early maps of the Middle Ages this land of *Gog* and *Magog* is represented, but with the advance of knowledge of Asia the names were given to lands further northward. Here the cosmographer seems to rely in the main on Arabic sources, and especially on Idrisi (§219). He separates the two by placing *Magog* north of the mountain range stretching entirely across Asia, and *Gog* south of the same. On the border range several towers are indicated. The *Gog* people appear as a group of dwarfs covered with a shield, who are attacked by two cranes. A legend gives the following explanation: *These are of the generation of Gog, who do not exceed the height of a cubit, who do not attain the age of nine years, and who are continually molested by cranes.* Idrisi also represents the people of *Gog* as dwarfs, and our cosmographer identifies them as the pygmies of Pliny, who placed them in the mountains of the north of India, exactly as does the Genoese cosmographer, in a beautiful valley protected from the cold winds, where they are molested only by the attacks of the cranes. This identification of *Gog* with the pygmies of classical antiquity is peculiar to this map. The towers referred to above are explained in the following legend: *King Prester John built these towers in order that those shut therein might not have access to him.* These towers stretch along the crest of the mountains, as if intended to protect the more highly civilized parts of China from the wild people of north and central Asia. It seems probable that we have here an early reference to the Great Wall of China, which appears on no other medieval map. Abulfeda and Raschiuddin, his contemporary, refer to the great wall as *the Wall of Gog and Magog*. As the builder of this wall, our cosmographer in his legend names *Prester John* who appeared on the Catalán map of 1375 in the Nubian and the Abyssinian regions, and from that time on the name seems to have been connected with the last-named region, though, as the Genoese map shows, it did not completely disappear from central Asia. There is support for the belief that in the letter of Alexander III, the ruler of Abyssinia is to be understood, although the great majority of the allusions to him seem to support the idea that the original *Prester John* was a central Asiatic ruler.

As a characteristic representation of the animal world, we find sketched in Southeast Asia a snake with a human head. The idea that such monsters were to be found here appears to have been taken from Conti.

The geographical nomenclature in the interior of Asia is very numerous, including the names of cities, countries and topographical features. In Asia Minor we find the names *Asia Minor, Pontus*, but more conspicuous the name *Turchia*. Of the cities which are here
most distinguished is one named Sinope, which is adorned with a Genoese banner. East of this, Simissos, Patinissa, Chrizonda, Trapezonda, Sormene. West of Sinope lies Castelle, also Ponteraquia and Carpi. On the Sea of Marmora is Palolimen and Diascinolo which on English charts is represented as Eskel Bay, a semicircular harbor with a very good anchorage twelve kilometers east of the mouth of Susurulu Tschai. Farther to the west is Spiga, that is, Karabuga Bay, into which the Granicus empties. On the west coast only the name Altoluogo appears, which name one finds on almost all sea charts. This was located near the site of Ephesus and was a prosperous city in the 15th century. On the south coast we find Atalea and Candelor, the ancient Alaja and Korakesion. Farther southward, Antioch, a fortification on the coast often referred to in the 15th century; also corocho, the ancient Corycus, northeast of the mouth of the Seleuke. This is Strabo’s Cape Korykos with the Koryken Cave, where in Greek, in Roman, in Byzantine, and also in Armenian times stood a fortification. Here we find Tarass and Layazo, which in the Middle Ages was a harbor of Lesser Armenia, and an important terminal on the commercial route to India.

The cities represented on the frontier of Asia Minor are probably Angora, Burssa and Philadelphia. In Armenia appears Azerum, and to the southeast of this, in an incorrect position, Sauasto.

In Syria the following are found along the coast from north to south: Alexandretta, Tortosa, Sur, Acre, Cesarea, Arzufo, now in ruins, but in the time of the crusades and for a long period thereafter in the possession of the Genoese, who had conquered it; also Jaffa and Ascalon. In the interior, Jerusalem, Damascus, placed far to the north; Antioch and, less accurately placed, Tiberias. Palestine is especially distinguished from Seria as Judea sine.

In Arabia Arabia Deserta is distinguished from Arabia Felix, and the extreme southeast part of the peninsula, that is, Oman, is called Fenicea et Sabba, suggesting that the Phoenicians once occupied the basin of the Persian Gulf. Among the cities Media Arabie appears most conspicuous, and the tower decorated with a flag, and lying on the coast, is undoubtedly Dschidda, Conti’s Zidem. The large city on the south coast is Aden, at which point Conti landed. In Mesopotamia appear the names babilone, a regional name; Babilo and Baldac, or Bagdad; and in the Caucasus region are the territorial names Zichia, by which name in the Middle Ages the region northwest of the Caucasus was designated, and Albania, Georgia and Iberia. In the highlands of Iran appear the names Media, Zilan, Parthia, Aria, Aracosa, Gedrosia, Cormania and Persis. The land to the east of Aria, that is, southern Afghanistan, is represented as a desert.

Among the cities referred to on the Caspian Sea appears a name no longer legible, but which is probably Axum, being at the time of Montecorvino a winter residence of the Persian ruler; Ungro, the best harbor of Gilan; Zilan and Cavo Zilan, by which perhaps is meant Sari, which in the middle of the 15th century was the most important commercial city on the south coast of the Caspian Sea. In the interior are Tauria, a center of trade with remote Asia and India; and Ragis, the ancient Rhagas, a residence of Mohammedan princes, and, since the destruction by the Mongolians, a vast ruin, out of which in part the neighboring city of Teheran is built. Of the cities of Parthia only the name Yier appears, by which perhaps Dscordschan is meant. On the Persian Gulf lies Ragan, by which Arragan is probably to be understood, whose ruins are found in the vicinity of the present Babahan, with Fars on the Ab Ergum. This place, incorrectly located on the coast, is not referred to by Conti, nor is it to be found on any other map. The Genoese cartographer must have had for this some special source. The city lying to the east must be Ormuz. The city Calacia, lying in the interior, seems more difficult to distinguish, which city is referred to by Conti, but is not definitely located. There may have been a Persian maritime city by this name on the coast.
of Oman, since by reason of favorable winds and gulf currents the two coasts of the Persian Gulf stood in such close relations that again and again in their history Persian rule controlled the Arabic coast, and Arabic rule the Persian coast. In the time of Ibn Batuta the coast of Oman was Persian, and was ruled from Ormuz. It was the Portuguese who first overthrew the Persian authority. *Calacia, or Calacatia,* according to Batuta, is *Kalhat, Kalhat, Kilat or Kilhat,* in Oman southeast of Muskat, where its ruins may yet be seen near a small fishing village of the same name. The Genoese cartographer very naturally was inclined to place a trading center in Persia. *Kalhat,* from the time of Idrisi to the arrival of the Portuguese, was the most important harbor and port of departure from Oman and the entire Persian Gulf to India, as was earlier Sohar and later Muskat. It appears that at the time the Genoese map was drawn the shipping from the Persian Gulf and from Ormuz followed the coast from Oman almost to Ras-el-Hadd, and from that point with the monsoons direct to India.

On the east side of the Caspian Sea, in Turkestan, there are only two cities represented, Testango and Organzins. Testango, which Pizigani calls Trestago, is Tysch-kandy on the Mertwyi-Kultuk Bay, whence the commercial highway led from the Caspian Sea over the Ust-Urt plateau to Organzins, the ancient capital city Chowaresmien on the Darjalik. Organzins is erroneously placed on the Caspian Sea. Destroyed first by Genghis Khan in 1221, and again by Timur, this great Asiatic frontier commercial city in the time of Conti was in ruins. The new city, Urgendsch, lies far to the east of the ancient city.

Conti, as before stated, divided India into three parts, but the Genoese cartographer, following the ancients, refers to two only, representing therein numerous cities and legends, most of which apparently he has taken from Conti. One of these legends, referring to India as a land whence ginger is obtained, reads: *Here much ginger is gathered;* the other, telling us of the practice of burning widows, reads: *Here the wives living mount the funeral pyre of their husbands, but if any refuse through fear, they are forced to this.*

Of the several regions only *Maabar* is especially designated in a legend reading: *This province is called Mahabaria.* By this we are to understand Coromandel, lying on the east coast, since it appears evident the legend refers to *Meliapur. Maabar,* it should be noted, is not to be confounded with Malabar, or *Meliabar* of Marco Polo.

Among the cities, *Cambay* is especially distinguished, which at that time was the most important commercial city of India, and which the Genoese cartographer calls *Cambayta,* making use of the Spanish term instead of the Italian *Camcaia* or the Latin *Combahtia.* *Meliapur* is distinguished by a Christian church with a cross and the legend, *Here lies the body of the apostle Saint Thomas.* There was scarcely a Christian traveler from the time of Montecorvino and Marco Polo, returning with information concerning the so-called *“Thomas Christians”* who had failed to visit *Meliapur* near Madras, since the place of Saint Thomas’ burial was a sacred spot not only to Christians but also to Mohammedan pilgrims. The tradition that the holy Thomas preached Christianity in India, suffered martyrdom, and was buried in a mountain had its origin in very early times. *Meliapur* on the Genoese map lies on a strait that separates Ceylon/Sri Lanka from the mainland. On the same strait, but farther to the southeast, lies a second city near which is the legend, *Caila, where they use the leaves of trees instead of papyrus. Caila* is Conti’s *Cahila* on the Gulf of Manaar, Marco Polo’s *Cail,* and Ptolemy’s *Colchi.* For centuries, even into the 16th, *Caila* was the central point of commerce between China, *Further India,* and the archipelago of the east and the trade centers of the Mediterranean. In the account of his voyage Vasco da Gama gives information concerning the city and kingdom of *Cael.* The tree whose leaves, it is stated, are used for paper is not the paper-mulberry tree, but the fan-palm. The fanlike leaves, about
two hundred square feet in size, the Singhalese are said to use in the place of paper. The ancient Pusk olay manuscripts in the Buddhist monasteries were all written with an iron stylus on such paper, that is, on the leaves of the talipot palm, prepared by cooking and drying.

West of the Ganges delta, on a mountain, lies the large city Bizungalia, which Conti called Bizenegalia, and which seems to have remained a city of importance well into the 16th century. To its importance perhaps the legend Major de mundo refers. The Arnona Civitas of the Genoese cartographer seems to lie in about the position of Conti’s Cernove, reached by him in a fifteen days’ journey from the mouth of the river. Conti gives a vivid description of this part of the Ganges River, up which river, as he states, he sailed for the space of three months; and from his description one might conclude that he had passed entirely through Hindustan, and that after he had made the desired commercial observations he turned about to make a long sojourn in Maharatia, perhaps one of the four important cities to which he refers.

The land north of the Ava River (Irawadi) as far as a great parallel mountain range, including apparently the entire Irawadi region, the Genoese cosmographer calls Macina, inscribing the legend: This province of Macina produces elephants. Its inhabitants subsist on serpents, regarding them as great delicacies. They tattoo their faces with various punctures and colors and with an iron stylus. They are contented with one wife. The name Machin seems clearly to be a modification of the Sanskrit Maha Chin, that is, Great China, a name which the Persian and the Arabic writers frequently used for Manzi, the southern part of China. Including in part Indo-China, the name Machin may also include Southeast Asia, for which there is support in certain 15th century references, as there are people of Southeast Asia among whom the custom of tattooing prevails; this being particularly true of the Laos and the Burmese. The Genoese cartographer clearly considers Burma a part of Machin, which since the 13th century had belonged to China. Conti’s name Macinus can hardly be thought of as Mangi, which is suggested by Fischer, who follows Ramusio, but more probably refers to Siam/Thailand. Though the geography of India as here laid down presents difficulties, there are difficulties which are equally great along the east coast. The eastern border of Asia, toward the south, is represented as Cathay, and that toward the north as Sine. This last name, as before stated, was not employed at all in the Middle Ages, and may be considered a survival from Ptolemy. Cathay is made to include the entire peninsula of Southeast Asia. Near the picture of the Grand Khan enthroned, and his capital city with its four square towers, is the legend, apparently taken from Conti: The Great Khan rules this region, which is called Cathay, or, in their language, Cambalec. Cathay was the European name for northern China, while to the southern region, which was reached by water, the name China was given. It does not appear from his travels that Conti reached China, and what he has to say may rest in part on rumors which came to him and in part on the accounts of Marco Polo. The title Khan had long since been given up by the Mongolian dynasty.

AFRICA
On the eastern edge of Africa, we can see a green and blue tent indicating the local ruler; this feature, as well as the head at the upper right corner of the chart representing the wind, has allowed the researchers to attribute this work stylistically to Petrus Roselli, one of the most important cartographers of the second half of the 15th century. Turning to the continent of Africa, we find its Mediterranean coast, as on the portolan charts, well represented; likewise the Atlantic coast as far as Cape Bojador, which had recently been reached by the Portuguese. The Genoese cartographer appears to have known the trend of
the coast even to Cape Verde, although his representation of the coast southward of Cape Bojador is far from correct in its details. The southern coast of Africa is made to extend in a flattened curve toward the east, which representation is similar to that on the world maps of Sanudo, of Leardo, and of Fra Mauro (#228, #242, #249). The southern continental boundary of the Indian Ocean appearing on Ptolemy’s world maps, reduced to a long and narrow peninsula by Sanudo and Fra Mauro, is still further reduced by the Genoese cartographer.

On the west coast, in about the position where one should look for the Gulf of Guinea, a gulf having one large and two small islands extends into the mainland, as is represented by Sanudo, Leardo and Fra Mauro. These last-named cartographers call this gulf Sinus Aethiopicus, while the Genoese cartographer, the name being repeated many times, designates the mainland as Ethiopia, and his legend here reads: Contrary to the tradition of Ptolemy, this is a gulf, but Pomponius speaks of it with its islands.

In about the latitude of this gulf on the west coast we also find one indicated on the east coast which appears to be the Bay of Zanzibar. Before this bay, that is, in the open waters of the Indian Ocean, is represented a fish with a swine’s head. A legend here reads: This animal, called the sea hog, gathers its food with its snout like the land hog.

The Canary, the Madeira and the Azores Islands are well represented. Legends are here inscribed on either side of a broad scroll, wherein the author refers to his work and gives the date of its composition, which legends are almost illegible. One of them seems to read: This sea is called the ocean which, according to cosmographers, stretches out infinitely in every direction, covering the earth except about a fourth part here laid down. This sea, disturbed by the force of the moon, ebbs and flows around the earth every lunar day, as Albertus says in his Natural History. It appears from this that Albertus Magnus was one of the Genoese cartographer’s authorities. The other legend for which Professor Fischer failed to get an intelligible reading asserts that: Beyond this equinoctial line Ptolemy records an unknown land, but Pomponius, and in addition many others, raising a doubt whether a voyage is possible from this place to India [the Indians], say that many have passed through these parts from India to the Spains, and . . . especially Pomponius in his last chapter.

In the representation of mountains of Africa we find the Atlas range, which stretches along the north coast eastward to the Great Syrtus, a second range west of Egypt, stretching in a southerly direction. In the extreme south of the continent the Mountains of the Moon are represented as snow-covered, with the following explanatory legend: These are the Mountains of the Moon, which, in the Egyptian language, are called Gebelcan, in which mountains the river Nile rises, and from which, in the summer-time, when the snows melt, a very large stream flows. This legend gives us the Arabic name for the Mountains of the Moon as Gebelcan, which is doubtless the same as Gebel Camr. The name Djihal-alqamar, Mountains of the Moon, according to a conjecture of Kiepert, was derived in Ptolemy’s time erroneously from Djibal-qomr, Blue Mountains. This seems to refer to the snow-peaks of the Kilimanjaro and Kenya, as seen from a great distance, which mountains send their waters toward the interior of the continent. It was doubtless through Arabic merchantmen that the Alexandrian geographer derived his information, on a visit to the east coast of Africa. Late even in the 19th century the Mountains of the Moon appear on maps.

The hydrography of Africa is likewise Ptolemaic, especially that which pertains to the Nile. The Mountains of the Moon is the source out of which its two branches flow. The Blue Nile, however, is represented according to most recent information from Abyssinia; this river, uniting with the Atbara, forms one river which flows out of a large lake, in which an island is represented. Meroe, however, does not, as with Ptolemy, lie on a river island,
but on a river peninsula. Even the irrigation canals, which lead out from the Nile in Nubia and Egypt, are represented by the Genoese cartographer. On an island in a lake of Abyssinia there appears to be a floating house, and near it the legend: *In this lake there is an island, Tana by name, which contains forests and groves and a great temple of Apollo. This island floats and is driven in whatever direction the winds blow.* This legend appears to be taken almost verbatim from Pomponius Mela.

A monastery, or a city, with numerous towers over which a cross is drawn, is located in the lake and bears the name *Maria of Nazareth.* The lake is undoubtedly Tana, Strabo’s *Psebo* and Ptolemy’s *Coloe.* It may be noted that even today the banks of this lake, as well as its islands, are the site of numerous churches and monasteries. The large island Dek, or the Holy Daga Island, dedicated to Saint Stephen, is now inhabited by hermit monks, and to it the outside world is not admitted. About the time that the Genoese cartographer produced his map he could well have received excellent information concerning Abyssinia. In 1439 Pope Eugenius IV named an apostolic delegate to that region, and sent a letter to *Prester John,* the ruler of Abyssinia; and we also learn that an Abyssinian ambassador appeared at the Council of Florence in the year 1441. In support of the statement that the Genoese cosmographer was well informed concerning Abyssinia may be found the representation of a war elephant carrying a tower filled with armed men. A legend here reads: *These people fight in a battle-line of castled beasts.*

That the Christian Abyssinians made use of the elephant in war during the Middle Ages, Marco Polo relates, who, in his travels, had gathered considerable information concerning that region of Africa. It was the Abyssinian Christians whom the cosmographers, at the close of the 14th century, had to thank for information concerning their country.

On the *Catalan world map of 1375* (*#235*) a war elephant is also represented in Nubia, and the same picture appears again in India with the addition of a driver. Marco Polo ascribes the use of war elephants to the inhabitants of Zanzibar, while Mas’udi expressly states that their land was rich in elephants, which, however, were neither tamed, nor were they used in any manner. There can be no doubt that in the lands on the west side of the Red Sea elephants were captured by the Ptolemies in great numbers, tamed and made use of in war, as Ptolemy Euergetes testifies in the inscription from Adulis that he employed Troglodytic and Ethiopian elephants against those from India.

Not only does there appear to be some confusion relative to the representation of the Nile River, but the hydrography of other parts of Africa is very confusing. A river empties in the Syrtus west of Masrata, which comes from a lake in the neighborhood of Wadam, and which is called by Idrisi *Palmenoase,* a river five days’ journey south of the Great Syrtus. It is difficult to determine whether by this *Wadi Schegea* or *Wadi um el Cheil* is to be understood. In Tunis a river is made to empty into the Mediterranean, which is probably the Medscherda, with one branch emptying on the north side of the Gulf of Tunis, and with another into the Gulf of Hammamet. A similar river, dividing into two branches near its source, empties into the sea in Algeria east and west of Algiers, and a smaller one east of Ceuta. If the Genoese cosmographer, in the well-known regions, represents somewhat arbitrarily his watercourses, we can certainly expect to find this in the less known regions. It appears impossible to identify the rivers emptying on the west side of Africa. With some degree of certainty we may identify the *Wadi Draa,* represented as flowing through many lakes and emptying south of Cape Bojador. Whether the rivers emptying still further southward represent the numerous rivers which empty south of
Senegal and Cape Verde, it is not possible to determine. Perhaps the author intended the
more northern and the larger one as the Senegal.

The reference to the character of the land in Africa and its different products is very
full, attention being drawn particularly to the animals. In addition to the elephant and the
crocodile, a camel is represented in the southwest, and near it a mythical animal, which
may be a dragon or a basilisk, and which, according to tradition, inhabited Africa in
antiquity and in the Middle Ages. One here recalls the description which Idrisi gives of a
dragon living on an oasis to the east of Sahara, so enormous in size that it was often
mistaken for a mountain. It had the form of a snake in that it crawled on the ground, but
had large ears extending forward. In the Atlas region there are also represented a giraffe, a
lion and two monkeys. Three human figures are introduced to represent the political and
ethnographical situation, one a turbaned Mohammedan ruler of Egypt, with the inscription
Dominus; the other a crowned head with black hair, carrying a banner, on which is a cross
with the inscription, Presbyter Johannes Rex, denoting the Christian ruler of Abyssinia. A
third figure, unmistakably a negro, in the southwest, holds a ball (?) in his hand, and is
described in the following legend: These are the people who live degenerate lives, among whom
there is no distinguishing name, who behold the rising and the setting sun with direful imprecations.
The extreme southeastern part of Africa has the following legend: In this region certain ones
have depicted the paradise of delights. Others, indeed, have said that it is beyond the Indies to the
east. But since that is a representation of cosmographers who have given no description of it,
therefore an account of it is here omitted. Professor Fischer thinks this is to be understood as
signifying that the Genoese cosmographer based his information on pre-Christian authors,
that is, Pliny and Ptolemy, while omitting his own view concerning the position of the
earthly Paradise. Medieval cosmographers place this now in East Africa, now in East Asia,
but more frequently in the latter.

The regional names of the map, for the most part, are taken from antiquity. For
instance, the name Ethiopia appears six times, and in addition, in Western Europe, Ethiopia
interior, and in the east, Ethiopia Egypti. Ethiopia also embraces the entire southern section.
Adjoining this is the Nile land, Egyptus; further west, Nubia; and to the west of Nubia is the
entire Sahara region, designated as Libia. The Regio arenosa, that is, the desert region of Igidi,
is especially distinguished. The north coast of Africa embraces Mauretania, to which
Regnum fesse and, in part, Regnum Trenecen belong. Adjoining this are Regnum Tunisi,
Barbaria and Cirenaica. The more important place-names are distinguished through towers
and castles. On the Mediterranean, from east to west, we find Larissa, Alexandria, Senara (in
the Medicean atlas (#233), Zunara, and Vesconte (#228) also gives Zunara). On the portolan
charts there is always represented a large bay in the southeast corner of the Great Syrtus,
which must have been an important harbor. It owes its origin as a harbor to a high, rocky
headland, perhaps formerly an island, which extends from the southwest to the northeast
and continues in a long chain of rocks.

There follow, farther to the west, Tripoli barbaria; Rasamebes, designated as a
headland visible from a distance, the present Ras Makhahes, with a good bay in its
protection east of Descherba; Capis, Tunes, and an unreadable name, perhaps Biserta;
Taberca, which, on account of its Italian coral-fishery, is famous as the island of Tabarca;
Bona, Bugea; an unreadable name, perhaps Titelis; Alcer, Tenes, Oran, Melila, Septa (Ceuta).
On the ocean side we find only the names Sale, Saphi, Gozola and Buder (Bojador). In the
interior of the Atlas territory the Atlas range reaches far to the south. Here we find the
following names: Albara (south of Algiers), perhaps Albuhe of the ancients, known for its
warm baths; Tremecen, Fessa, Marroco; farther south, a city with an undecipherable name,
perhaps Tarudant; in Libya, that is, in the Sahara region, south of Fez, Pataxio, Tueto, Mecara, Calata, Bescara, Uadan, the last two perhaps Biskra and Fez, far from their proper place. Calata is probably Idrisi’s Al Cal, near Msila in the highlands of the Schotts, a significant city before the rise of Bougie, the capital city of the kingdom of the Hammaditen. Mecara may be Idrisi’s Maggara in Zab. In Egypt is Cairo; in Nubia are Meroe, Ati (?), Talam (?), and an unreadable name. These places, for the most part, are inserted from world maps of other cartographers.

An especially interesting feature of this chart is its union between real and imaginary geographies, which is common in early modern mapmaking. In the Atlantic Ocean, traditional mythical places, like the island of Brasil, are present, and, perhaps influenced by the charts of the Anconitan Grazioso Benincasa, the imaginary Fortunate Lake, filled with abundant islands, is represented in western Ireland. This coexistence between real and imaginary places, as well as its rich decoration, the accurate representation of the coastlines, and the abundant place names written on it, makes this item a very interesting example of 15th century portolan charts.

**Summary:** The author of the Genoese map and the circumstances of its production are unknown. It is at once more recognizably modern, drawn with north at the top and having the proportions of the three continents and the Indian Ocean approximately correct. It may well have been drawn on the Ptolemaic model, since the Ptolemaic world map was familiar to scholars by this time, although it lacks the scientific apparatus of Ptolemy. It embodies the outstanding landmarks of 15th century geography: the great Khan ruling in China; Prester John in his African kingdom; the islands of the Indian Ocean, Xilan [Ceylon/Sri Lanka] and Syamutha [Sumatra]; Africa with its navigable coast, and an open Indian Ocean, where, in a prophetic image, a three-masted European ship is sailing. A statement taken directly from Conti appears in a text in the Indian Ocean: *In this sea they navigate by a southern pole star, the northern having vanished.* The mermaids and dragons are the conventional space-fillers of the mapmaker’s studio; the map’s clear message is that the seaway from Europe to the east exists.

**Location:**
The chart is held in the Biblioteca Estense e Universitaria in Modena under the shelf-mark C.G.A.5.b.
The Indian Ocean in a facsimile edition of the Genoese map
A sea monster illustrating a passage from Bracciolini’s Facetiae – the ultimate source of the demon-like sea monster on the Genoese world map of 1457 – in Sebastian Brant’s 1501 edition of Aesop’s Fables. (British Library, 86.k.1, p. 243).
The Genoese Map

The following article is provided with references to other portions of these books.

The so-called Genoese World Map of 1457: A Stepping Stone Towards Modern Cartography?
By Gerda Brunnlechner, FernUniversitat in Hagen
Peregrinations, Spring 2013, Vol. 4 Issue 1, p. 56

Around the time of Christopher Columbus’s birth, we find on the shores of the Mediterranean Sea, especially in the north of Italy, a variety of people particularly interested in problems of geography and cartography. Humanistic circles met for debates, exchanged ideas, and more often than not brooded over maps. Mapmakers moved from port to port, found purchasers and merchants interested in investing in books and maps. At the councils of Constance (1414-18) and Florence (1431-45), geographical treaties changed hands, while maps and the geography of foreign regions were discussed.1 To some extent these people were able to find the information they were looking for on the medieval mappae mundi, which, with their pictures and stories, constitute a historiography of the world (including its end times).2 The Humanists looked back to antiquity for geographic information, and Ptolemy’s Geography, 1409 translated into Latin by the Florentine Jacopo Angeli (see Book I, #119), was the center of much attention. In addition, travelers’ and merchants’ news of foreign lands and people gleaned from their voyages also found its way into these discussions. Portolan charts, maps of the Mediterranean and Black Seas with - to the modern eye - their near-natural depictions of shorelines, had been in use by seaman for at least 150 years and came to be of increasing interest in these scholarly circles.3 These charts provided to many a new, unfamiliar depiction of the world, contrasting sharply with the view presented by mappae mundi.

These different strands of information would be merged in so-called transitional or hybrid maps of the period.4 The so-called Genoese World Map of 1457, a transitional map and the focus of this article, presents preliminary questions regarding the conceptions of space. Merging medieval mappae mundi with portolan charts and Ptolemy’s data with the information gathered by contemporary travelers, the Genoese World Map is frequently seen as a step towards modern cartography, which, in part, is defined by a homogeneous conception of space.5 Its classification as transitional emphasizes progressive and conscious development towards a new stage. But does this transitional period in the history of cartography really represent a natural and inevitable development towards modernity? Or could it be that this concept merely interferes with a view of continuities, such as the persistence of various dimensions of meaning in these maps, continuities that hint at the continuance of heterogeneous conceptions of space?6

3 The notion of a near-natural depiction of the world is understood throughout this article in the sense of an approximation of the representation towards nature in contrast to an approximation towards reality, as nature represents but one dimension of a multidimensional reality. A further distinction has to be made between how nature was perceived at the time of the Genoese map and how it is perceived today.
5 See below p. 60.
6 See Jörg-Geerd Arentzen, Imagini Mundi Cartographica. Studien zur Bildlichkeit mittelalterlicher Welt- und Ökumenekarten unter besonderer Berücksichtigung des Zusammenwirkens von Text und Bild (München, 1984), pp. 325-26 for the point of view, that the rediscovery of Ptolemy caused fundamental changes in cartography, but that there were also continuities until the seventeenth century, preserving the melding of time and space within and the multidimensional contents of mappae mundi.
The Homogenization of Space?

Building on the concept that space and its perception are cultural constructs rather than anthropological constants, Alain Guerreau has found a distinct connection between feudal structures and spatial perception. He states that from the Middle Ages until the 18th century, the perception of space was determined by a mixture of feudal rights, privileges and liabilities, in such a way that space was felt to be heterogeneously structured. This heterogeneous conception of space is expressed in medieval *mappae mundi*, which show a geographically-structured view of history and theology, thereby melding space and time. In structuring proportions and distances according to meaning and importance, these maps demonstrate a hierarchic view of the world. In a cartography based on a homogeneous conception of space, every location is a point in a grid of parallels and meridians, every location is theoretically of equal value, and, normally, space and time are separated from one another. As early as the 13th century, the English scholar Roger Bacon proposed the use of a grid to depict the world, which has been seen as a first step toward homogenizing space (see below). However, as Patrick Gautier Dalché has explained, Bacon had in mind a projection of the grid of the celestial vault onto the surface of the earth. This celestial grid served to measure the movements and relations of the celestial bodies. Bacon’s aim was to determine the individual characteristics of every location on earth by tracing its exact relation to the planets. Bacon’s grid is, therefore, not a step towards the homogenization of space. It is rather the expression of a decidedly heterogeneous conception of space, one that prevailed into the 15th century, when the French cardinal Pierre d'Ailly’s concept of a grid (§238) and Jacopo Angeli’s understanding of Ptolemy ran along the same lines. Nevertheless, the propagation of Ptolemy’s Geography by 15th century humanists is often seen as another step towards the homogenization of space, although their main concern was with Ptolemy’s toponyms: as the first few decades after its translation, no evidence of interest in Ptolemy’s projection methods has yet been established. Yet Ptolemy’s coordinates were frequently copied. This raises two questions: Did the people brooding over these coordinates in 15th century Latin Europe understand them in the sense of heterogeneous space, as in Bacon’s and d’Ailly’s grid, or in the sense of homogeneous space as it was presumably meant by Ptolemy? And, more specifically, does the Genoese World Map constitute one step towards a homogeneous conception of space?

The Genoese World Map: More Traditional than One Might Think?

The 14th and 15th centuries are generally classified as a transitional period in cartography. Comments on the melding of the Christian tradition of *mappae mundi* with relatively precise maps of the Mediterranean and Black Sea coasts, as well as information of travelers and Ptolemy’s toponyms can be traced back to Charles de La Ronciere in the late 19th century.

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12 Gautier Dalché, “Ptolemy’s Geography,” p. 298, 305 (n. 1). 59

The Genoese Map

Reconstruction of Roger Bacon's Map Projection

In this 13th century map projection, Bacon fixes the position of a point by its distance from the Equator and a Central Meridian. The parallel of latitude is drawn straight and parallel to the Equator through the place's latitude on the colure (AD and AC). The meridians are represented as arcs of circles through the pole and the longitude of the place on the Equator, except the Central Meridian, which is straight.

David Woodward also observes this fusion of traditions, but goes even further in interpreting it as an anticipation of the Renaissance, forming “a transitional stage between the medieval and modern worlds of mapping.” The Genoese World Map, as suggested above, is generally understood as a transitional map, melding mappae mundi, portolan charts, Ptolemaic data and contemporary information gathered by eye witnesses, but it is absent from Peter Barber’s description of the most important mappae mundi of the Middle Ages. It seems that Barber did not regard it as such.

Others classify it as stepping stone towards the homogenization of space, mainly because the Earthly Paradise, though discussed, is not illustrated on the map. Alessandro Scafi – for whom the depiction of the Earthly Paradise forms the watershed between mappae mundi and modern cartography – classifies it as a map in which time loses importance to space while measured space gets more important, becoming an abstract container on these maps as well as in the minds of their makers. Evelyn Edson likewise interprets the disappearance from the maps of unreachable locations like Paradise or the uninhabitable regions as sign of the growing homogenization of the conception of space. She notably sees the 15th century reception of the Latin translation of Ptolemy’s Geography as the catalyst for this development. Both of them are right, but we must still decide when, for whom, and on which occasions this change came into effect, given that Edson remarks that Christopher Columbus saw Paradise as a definite location, waiting to be found and mapped.

This article is not intended to contradict the assertion that important changes in cartography occurred during the 14th and 15th centuries or the relevance of the depiction of Paradise on maps. The objective is rather to inquire into the nature of these changes. Surely, if modernization is understood as an innovation, a change gaining in momentum, it has to be measured by what was perceived at the time of innovation or shortly thereafter.

17. See Edson, World Map, pp. 228-29, 234 (n. 1).
But was the change in the geographical picture presented by world maps really so important at the time; or, does it only appear important today, because it seems like a step towards modern cartographical models of mapping space? Did the near-natural depiction of the world really mean that space gained importance over time, that maps did not anymore show hierarchies, in short, that space came to be seen as homogeneous?

Striving for truth and accuracy was especially important in order to determine one’s position in salvation history. Eschatology had the desire to predict the future at its core. To arrive at precise predictions, it was necessary to learn to read the signs of nature correctly, which stimulated the enhancement of scientific methods.\(^\text{19}\) Maps were not only or always about navigating the world, or finding one’s place on its surface; they were important tools to locate oneself in history. Thus, achieving a near-natural depiction of the world - in contrast to conventions which were only vaguely related to geographical factors - does not mean that dimensions of meaning were removed, but that their basis was updated. Thus, the desire to converge representation and nature does not necessarily contradict a heterogeneous conception of space. Edson regards the Genoese World Map’s many pictures as a temptation to see the map as more traditional than it really is.\(^\text{20}\) Turning this thought around results in a new question: Because this map’s geography is so easily identifiable to the modern eye, does it mislead us into regarding this map as more modern than it really is?\(^\text{21}\)


\(^{21}\) Building on Victoria Morse, “The Role of Maps in Later Medieval Society: Twelfth to Fourteenth Century” in (ed.) Woodward, *History of Cartography* 3/1, p. 27 (n. 1), who claims that discontinuities from the Middle Ages to the Renaissance tend to get overemphasized in the historiography of cartography.

![The Homogeneous Conception of Space in the Genoese World Map? A Map Frame as a Sign of Secularization?](image-url)

At first glance (Figure 1), the most striking feature of the Genoese World Map is its frame, a unique almond shape, no other known, painted world map of the time has a similar frame. Geometric map frames did not appear regularly before the early Renaissance and are interpreted today as auxiliary
constructions that separate the space of the map from the space of the wider world. To the modern eye, these frames imply completeness, but this was not necessarily the case for their contemporaries. Therefore, the reason for the mapmaker’s framing choice is best searched for in its own context.22 Yet, outside the frame of the Genoese World Map one sees scales and coats of arms, but there are no symbols of Christianity, as on some mappae mundi. Over time, one can see a shift from the Christian mappae mundi’s theological cartography to a focus on a more secular topography, where Christianity is but one thread among many, which was to disappear with time.23 The Genoese World Map’s geometric frame, its scales and coats of arms, suggest a secularization of the map, an exclusion of the Christian background once depicted so prominently in the mappae mundi. (Figure 1)

Along with the displacement of Christian imagery, one could presume pragmatic reasons for the use of this almond-shaped frame, as the shape allows for a more efficient utilization of the given space of the parchment, providing space for an expansion of Asia that was necessary due to the new findings of travelers.24 The mapmaker could have been inspired to use this solution by maps in the Ptolemaic style, which depict an expanded Asia by showing the world in the form of a scallop, by maps in the tradition of 14th century English Benedictine Ranulf Higden (see Book III, #232), which come in circular, oval - only in their textual form - an almond shape, or by a poem from the 14th century by the North Italian poet Fazio degli Uberti, which states that a true rendering of the world must be almond shaped.25 Following this line of thought, the frame of the map would be solely functional, which in turn points towards a homogeneous conception of space.

The use of an almond shape could also have been an attempt to tie the Genoese map to antique geographic and cartographic conventions: for instance, to the revival of Eratosthenes (Book I, #112), a reference to the concept of an ellipsoidal world with cut edges by Posidonius (Book I, #114), or the combination of Strabo’s scallop shape of the world with Marinus of Tyres’ projection method (Book I, #115).26 As a result, one could presume humanistic influences affecting the mapmaker, with his references to the classical world.

22 See Woodward, “Cartography and the Renaissance,” pp. 12-13 (n. 9). See Arentzen, Imago Mundi, p. 30, 320 (n. 6). The singular term, “mapmaker,” is used throughout this article for reasons of convenience, although it is probable that more than one person was involved in making the map. In addition, the map might also have been influenced by the wishes of the mapmaker’s patron or customer.


24 Gautier Dalche, “Ptolemy’s Geography,” p. 317 (n. 1); Raleigh Ashlin Skelton, “Ranulf Higden” in Destombes, Mappemondes, pp. 149-160, here: pp. 150-151 (n. 13); see Arentzen, Imago Mundi, p. 32 (n. 6).


Another explanation could be the intention to depict the world as an egg, drawing on the concept of an egg-shaped world, which is explained in great detail on the *Catalan World Atlas of 1375* (Book III, #235). This thought builds on the analogy between the different layers of eggs — embryonic disk, egg yolk, egg white and shells - and the spherical structure of the earth.

A desire to depict the world within the celestial spheres of medieval cosmology recalls Roger Bacon’s aim to determine individual qualities of locations via their relation to the celestial bodies. Moreover, taking into account, that medieval cosmology locates the angels and the Blessed in the outermost sphere, this puts the depiction of the world as an egg within the realm of Christian philosophy. Both possibilities hint at a heterogeneous conception of space.

The Genoese map’s shape also might have been inspired by the 12th century Parisian scholar Hugo of St. Victor’s description of drawing an almond-shaped world map, containing an Ark. Since late Christian antiquity, the Ark was seen as symbol of the church, sailing the world ocean. Hugo interpreted the Ark historically as Ark of Noah, allegorically as Ark of the Church, and tropologically as Ark of sapiency. In this context, the frame and overall shape of the map gains salvific historical relevance. In general, Christian symbolism connects the mandorla to Christ Cronocrator, who rules over time. Its light aura was and is still a symbol for sanctity, and thus the frame might signify that the world is Christ’s domain.

The motif of using a single eye to represent God became popular among 15th century humanists. Hence, the almond-shaped frame might represent God’s omniscience. In this case, the elaborate depictions of Christian stories traditionally depicted outside a map’s frame would have been replaced by the frame itself. Accordingly, the Genoese map’s depiction of the earth would be read in a Christian context, which could argue for a heterogeneous conception of space.

The question of why the mapmaker might have decided to use this particular frame and setting is not easy to answer. The circle was widely taken as symbol of perfection, of God’s love and absoluteness. Could it have been so easy for the mapmaker to discard it without any proper reason, without replacing it with a different spiritual, symbolic concept? Some arguments explaining the use of the almond shape point towards homogeneous and others towards heterogeneous conceptions of space. The possibilities presented here are not new, but comparing them shows that it is not possible to draw unambiguous conclusions about the character of *Genoese World Map’s* conception of space, based solely on the shape of its frame. Other features of the map need to be explored before such conclusions can be drawn.


31 Examples for depictions of Christian faith outside the oikumene: Ebstorf, Hereford, Psalter maps, see n. 23.

Map Scales and Rhumb Lines: On the Way to Modern Cartography?

The mapmaker painted two scales outside the map’s frame, (Figure 1) one indicating 100- and the other 50-mile increments. Whether the mapmaker took measured distances as the basis for his scales or whether he painted scales as a pretense is irrelevant to a study of the map’s spatial conception. The important thing is his purpose, about which we can only hypothesize.33 Naturally, scales suggest space defined purely by measurement, not space defined by meaning. But this does not automatically imply a homogeneous conception of space. Did the mapmaker want to give every point on this map equal value? Or do the scales just indicate that he valued a near-natural depiction of the world?

The system of rhumb lines the mapmaker used is clearly reminiscent of portolan charts, whose coastlines are shown on the Genoese map as well. The inclusion of this system could be interpreted as an attempt at spatial accuracy. Connecting the frame of the map and its rhumb system, Osvaldo Baldacci suggests that the mapmaker tried to unite Strabo’s scallop form of the world and Marinus of Tyre’s grid.34 In Figure 2, the lines, still partly visible on a digitized reproduction in possession of the author, are retraced. Even if these lines are connected to Marinus’s projection, there is not much known about Marinus’s grid due to the lack of source material.35

33 See Cattaneo, Mappa Mundi 1457, p. 174 (n. 25), for an extrapolation from the scales of the Genoese World Map to the supposed radius of the earth, arriving at figures similar to Eratosthenes.
35 See Cattaneo, Mappa Mundi 1457, p. 10-11 (n. 25).
However, on the *Genoese World Map*, no projection method was used, and the rhumb line system seems unfinished – either this or it is deliberately concentrated on Europe, West Asia, and the Indian Ocean. If the map is unfinished, this indicates that these lines were not important for the construction or the use of the map. If, on the other hand, the map is finished as it stands, one might expect the rhumb lines to concentrate on the areas modeled on *portolan* charts. But this is not the case, as the node in the Indian Ocean, about which no measurements were known, is the most prominent one. Moreover, the lines cover much ground onshore, which makes its use for navigational purposes seem unlikely. But, then, perhaps the mapmaker simply wanted to emphasize certain regions.

As with the frame of the map, its scales and rhumb system do not point clearly to a homogeneous or a heterogeneous conception of space, yet the mapmaker valued a near-natural depiction of the world. He explicitly declares this, using golden letters on red background, in the most elaborate cartouche of the map (in the extreme west): “This is the true [vera] description in agreement with Marinos, having rejected the frivolous tales of certain cosmographers: 1457.”

The mapmaker writes not only that he takes his description of the world to be true, but that he eliminated tales he thought untrue. It is most interesting to note that, for him, tales, narrations, are an important part of the map, and that those he included he took to be true. This suggests that his truth includes the stories of *Gog and Magog*, Alexander the Great, and the dragons and composite beings he depicted. Is it, subsequently, still possible that the mapmaker had a homogeneous conception of space in mind, with every location of equal value, a space devoid of meaning? Striving for a near-natural depiction of the world certainly limited his means of expression: measured distances cannot be expressed any more according to meaning. But striving for accuracy, for truth, was also important in order to be able to find one’s place in salvation history. Could it be possible that on the Genoese World Map space is not devoid of meaning, but that meaning is expressed in a new way?

*The Depiction of a Homogeneous World?*

If one regards the map as a whole, considering its legends and pictures, that the mapmaker had a clear focus becomes clear. The most elaborate legend is located, as discussed above, in the extreme west. Other focal points lie in the Indian Ocean, Asia, and Africa, all of which contain numerous large, detailed legends, pictures and vignettes. Europe, in contrast, seems quite unimposing. The viewer’s gaze is steered away from Europe toward Asia, Africa, and the margins of the world, which is not uncommon in world maps of the time. Out of forty-three legends with more than four words, twenty are concerned with Asia, eleven with the Indian Ocean, seven with Africa, four with the Atlantic, and only one with Latin Europe. Rivers and mountains are shown on the map, but generally without denomination or explanatory legend. However, the Ganges, the Indus, and the Nile are specially designated: in India, the Ganges and the Indus are not only depicted, but the Ganges is furnished with six and the Indus with three legends or denominations.

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37 See n. 19.
In Africa, the source of the Nile is described as being located in the *Mountains of the Moon*. While the majority of mountains are painted green and shown in plan view, the *Mountains of the Moon* are depicted in white and in profile, creating an illusion of depth. Other mountains in white and in profile are the mountains forming the border around the region enclosed by Alexander the Great, named “Ymaus mons,” and the mountains in the enclosure, which are labeled three times as “Montes inaccessibiles.” In Northwest Asia, in the area were the Mongols are depicted the only white mountains shown in profile without any legend are to be found. All the other mountains on the map are of the green flat type, even when legends are attached to them, which only occurs three times. These three legends inform the viewer about a mountain in China where carbuncles originate, about burning mountains in Africa, where a spring with alternately hot and cold water is located, and denominate as *Mons Synai* a mountain with a church on the shore of the Red Sea. A similar alternation of perspective can be seen in the vignettes representing towns, which appear in different sizes and colors. Most of them are flat, elevated representations of towers and walls, but some shown from an oblique perspective, giving an illusion of depth through the alignment of buildings - though very few provide a convincing illusion of depth.

Overall, the mapmaker does not present a picture of a homogenous world. He does not depict a space uniformly furnished with explanations and pictures. He emphasizes certain regions, certain locations, allotting more space to explanations in some areas than in others, creating differences through variations in distribution, content, size, color, and perspective. In short, he represents a hierarchical space.

**Following Ptolemy?**

As discussed above, the mapmaker aimed to create a true description of the world. In order to achieve this, he claims to be weighing authorities against each other. In two cases, Ptolemy and Pomponius Mela are explicitly named. The mapmaker lists their differing opinions in writing and once decidedly contradicts Ptolemy. To the right of the depiction of a gulf containing three islands, he writes: “Contrary to the tradition of Ptolemy, this is a gulf, but Pomponius speaks of it with its islands.” In both cases, the mapmaker’s depictions follow Pomponius Mela, opting for a circumnavigable Africa and the existence of a gulf on the west African coast *(Book I, #116).*
It is unlikely that this gulf is meant to be the Gulf of Guinea, as it was not known at the time. The mapmaker might have drawn on the Libro del conocimiento from the 14th century, which mentions a gulf on the west African coast, interpreted as passageway either to the land of Prester John or to the River of Gold, allusions that are also found on the Fra Mauro, the Borgia-Velletri and the Catalan Estense world maps of the 15th century (Book III, #249, #237, #246). By showing an open Indian Ocean without any southern continent, our mapmaker rejects Ptolemy once again. This time he does not comment overtly, but explains in a legend situated in the far west of the Atlantic Ocean that this infinite ocean covers the rest of the world and quotes the 13th century scholar Albertus Magnus to show that its tides are caused by the moon’s influence. Most interestingly, another legend in the Persian Gulf assures the reader that it has tides, just like the ocean. Consequently, the two oceans must be connected, whereby the mapmaker manages to support his depiction of an open, navigable Indian Ocean in an indirect way.

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The mapmaker, when weighing antique authorities against each other, possibly looking for further information gained by eye-witnesses, in the end sets himself against Ptolemy. Implicitly, he follows Ptolemy, as in his picturing of a Ptolemaic landlocked Caspian Sea, which was confirmed by the findings of travelers like the Venetian merchant Marco Polo and the Franciscan William of Rubruck.\(^{47}\) Apart from a denomination in the Caspian Sea (unfortunately no longer legible), the mapmaker did not make any further clarifying comment. But to the north of the Caspian Sea, a bay or a gulf is depicted. This might be a second Sea, as it traditionally was represented. Other mapmakers of the 14th and 15th centuries like Marino Sanudo, Paulinus Minorita and Andreas Walsperger (Book III, #245) also showed two Caspian Seas.\(^{48}\) Could it be possible that the mapmaker of the *Genoese World Map* expressed his doubts about the Caspian Sea by showing it twice, thereby acting in line with a heterogeneous conception of space?

In the Indian Ocean appears a fish with a human head, identified as a swordfish by the mapmaker, who quotes Pliny here. Alongside, we find a humanlike figure with horns, fins, and a fishtail, for which the mapmaker refers to the Venetians, claiming they had captured the creature and distributed its picture.\(^{49}\) This is not the only case where contemporary information finds its way onto the map, although the other sources are not explicitly named. The west African coast carries the names of Portuguese discoveries down to Cape Bojador, while Cape Verde and Cape Rosso, discovered in 1446, are not mentioned.\(^{50}\) In the Atlantic Ocean, the Canaries are named, and Madeira and probably the Azores are shown.\(^{51}\) Much of the information given in Asia stems from Niccolo de’Conti, the traveling merchant who came back to Venice in 1439, but it also might emanate from Marco Polo.\(^{52}\) The *Genoese* map’s depiction of Scandinavia, too, could have been influenced by the Danish mapmaker Claudius Clavus’ map of Northern Europe, which was discussed around 1439 at the council of Florence.\(^{53}\)

All in all, the mapmaker weighed the information available to him and put ancient authorities and contemporary information on an equal footing. After considering these sources, he depicted regions or elements as he believed them to be, based on the information they provided, and backed up his decisions in accompanying legends. This critical approach seems to be one of the map’s more innovative elements. Here the mapmaker does not stand alone, as this quality is even more prominent in the *mappa mundi* of Fra Mauro, dated around the time of the *Genoese World Map* (Book III, #249).\(^{54}\) Favoring one option out of several could point to the mapmaker’s conscious homogenization of space, to a new way of conceptualizing space by assigning every element of the map its definite location. But in the case of the Caspian Sea, it might be that the mapmaker reached no decision or that no decision seemed necessary, and so he listed all available information in a visual way. The depiction of two Caspian Seas, without the need for a decision, contradicts the notion of a homogeneous space, where every object has but one exact location, and therefore could create an entirely different picture.

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47 See Edson, *World Map*, p. 8, 73 (n. 1).
51 Cattaneo, *Mappa Mundi 1457*, p. 11.
52 See Gautier Dalche, “Ptolemy’s Geography,” p. 303 (n. 1).
A Synchronic Depiction?
The critical approach of the mapmaker extends to other topics as well. Out of the forty-three legends with more than four words, ten long and seven shorter ones deal with the Mongols, the area enclosed by Alexander, or Prester John. North of the Black Sea, (Figure 4) Mongols are shown wandering about with their houses packed on a wagon, settled in a town which bears the denomination “Lordo,” an approximation of the Mongolian ordo, which means campsites, and in the person of their ruler “Lordo rex.” In East Asia, they reappear as Tartars – the contemporary Western term for Mongols – enclosed by Alexander.

The ruler depicted east of the Caspian Sea is identified as son of the Great Khan and the one in China as the Great Khan himself, the latter mentioned again in the more precise designation of the region. This portrayal does not quite do justice to the power relations in the region during the mid-15th century. Timur’s descendants admittedly enjoyed a new bloom at the time, but the descendants of the Golden Horde, though still in power, were weak, and Moscow’s influence was growing. The Mongolian dynasty in China had long been replaced by the Ming dynasty. Even considering that in the Latin Europe of the 15th century, a conception of mighty Mongols in China still persisted, it nevertheless seems that the mapmaker pictures an exaggerated Mongolian presence in Asia, neglecting other powers, which might be connected to the renewal of an interest in the Mongols at the time, due to growing danger from the Turks.


On top of that, the mapmaker shows the Mongols at different times: as more or less contemporary rulers and people, as a people enclosed by Alexander a long time ago, and, through this depiction, as a people of the end times. (Figures 4 and 5)

A similar observation can be made in the area enclosed by Alexander. There are two Iron Gates, the one further east (Figure 5) explicitly related to Alexander and illustrates the tendency at the time to move landmarks eastwards, when their earlier, supposed location proved to be false. A bit to the east of the far eastern gate, Prester John is said to have built towers to ensure that the enclosed people could not escape. Thus, Prester John appears as Alexander’s co-constructor in enclosing the people of the end times. In the walled area itself, trees are painted, which is a singular occurrence on this map and is, in fact, exceptional for the whole genre. Within the enclosed region these trees set the area even further apart, irrespective of whether the mapmaker’s aim was to show the Siberian Woods or to indicate a legally or cultural separate area, which forests then often formed.

Moreover, there seems to be some doubt about the identification of the people enclosed. As mentioned above, the inscription at the gate states that Alexander enclosed the Tartars. In the enclosed area, “Magog” is inscribed in a style used elsewhere to indicate names of regions, but the Tartars are not mentioned. The same is true of “Gog,” which is written just outside the enclosure, along with a picture of two cranes attacking dwarves, the latter likewise identified as Gog. Inside the enclosure, inscriptions identify the Hebrews, who lead an excessive lifestyle, and the tribe of Dan, from which the Antichrist will be born.

On the Genoese World Map we find representations of the Mongols as contemporary rulers and as enclosed people, of the medieval Prester John as co-constructor of Alexander the Great’s wall and of the people of the end times side by side with a prediction of the coming Antichrist. This reflects the multiple timelines depicted on the map: the past of Alexander, the present of more or less contemporary rulers, and the apocalyptic future of Antichrist. A closer look at the map’s representations of Prester John (in varying guises) raises further questions about the mapmaker’s understanding of space. Prester John is explicitly named and pictured again in Ethiopia, (Figure 6) where he is shown as ruler. This is in line with a tendency, starting in the 14th century, to show him in Africa, as it became increasingly clear that he could not be found in Asia. It is possible that the “Indorum rex” in India (Figure 7) is another allusion to Prester John, as he was named ruler of the three Indies, in the 12th century letter supposedly written by him to the Byzantine emperor. It seems that the mapmaker gathered all of the information available to him and situated Prester John in three distant locations. The interesting question is whether the appearances of Prester John on different continents represents two options with a decision pending, or if it means Prester John is located in different places - which could jeopardize the thesis of a homogenous conception of space. Apparently, the mapmaker has no quibble with illustrating the same people at different times or one person at different locations on the map.

61 See Cattaneo, Mappa Mundi 1457, p. 184 n. D16 (n. 25). For the letter see Ulrich Knefelkamp, Die Suche nach dem Reich des Priesterkönigs Johannes. Dargestellt anhand von Reiseberichten u. anderen ethnographischen Quellen d. 12. bis 17. Jahrhunderts (Gelsenkirchen, 1986), pp. 180-88. Although the depictions of the “Indorum rex” and the “Presbyter Johannes rex” appear quite different, they seem to relate to the same idea.
Figure 5. Detail of so-called Genoese World Map: Region enclosed by Alexander (Magog), with turrets constructed by Prester John
Conclusion

Does the Genoese World Map represent an intermediate step between a heterogeneous medieval conception of space and a more modern homogeneous one? To tackle this question, it is necessary to hypothesize on the mapmaker’s intentions and study the way he handles the space on his map. What is clear is the mapmaker’s declaration of intent, his striving for accuracy and a near-natural depiction of the world, all of which make his map look rather modern.

He shows a critical approach in dealing with his sources, backing up his decisions or listing information, which is a very innovative feature. He also saw story-telling and history essential parts of his enterprise. Using these histories, he concentrated his attention on certain regions, emphasizing especially Asia, distinguishing certain locations through different forms of depiction, thereby creating a hierarchical space. The mapmaker saw apparently no inconsistency in depicting different times simultaneously or one element in multiple locations, melding time and space seems to be effected unconsciously. Taking his stated aim for truth seriously would imply that all of these features were part of his truth.

As shown above, social customs and spatial perceptions are connected, and the mapmaker’s intent to provide a near-natural depiction of the world might be related to the Christian faith. It is problematic to presume a homogenous conception of space is operative in the later Middle Ages or the Early Modern period, just because a mapmaker painted a mappa mundi using coastlines drawn from portolan charts, since geography is but one dimension of a map’s content. Just as important are the various dimensions of meaning on the Genoese World Map relating to faith and social life. Perhaps in answering certain questions one should not look too hard for historical transitions or changes in
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cartography, as this tempts one to privilege current representational conventions. In studying cosmological models of the Middle Ages, it would be more constructive to look for continuities that might even expose our modern understanding of homogeneous space as an illusion.

Figure 7. Detail of so-called Genoese World Map: “Indorum rex” in India, with permission by Ministero per i Beni e le Attivita Culturali/Biblioteca Nazionale Centrale di Firenze.

These continuities could perhaps explain why, as Evelyn Edson and Emilie Savage-Smith write, [the medieval cosmological model’s] “overthrow in the 17th century caused a profound spiritual and psychological disorientation from which we have yet to recover.”63 Studying conceptions of space in mappae mundi reveals how these conceptions change over time. Today, in character with the preferences of our own culture, we are persuaded to live our everyday life in a homogeneous, absolute space, neatly separated from time, notwithstanding that Albert Einstein disproved this notion. Therefore, although this study focuses on maps that are centuries old, it just might enhance our understanding of the current conflict between our daily experience and our theoretical knowledge of space and time.

62 See above p. 58 and 61.
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LOCATION: Biblioteca Nazionale Centrale, Florence, Italy, Port. 1

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Detail showing the green-colored Mount Ararat and Noah’s Ark between the Black and Caspian Seas, with the Tigris and Euphrates Rivers flowing south.