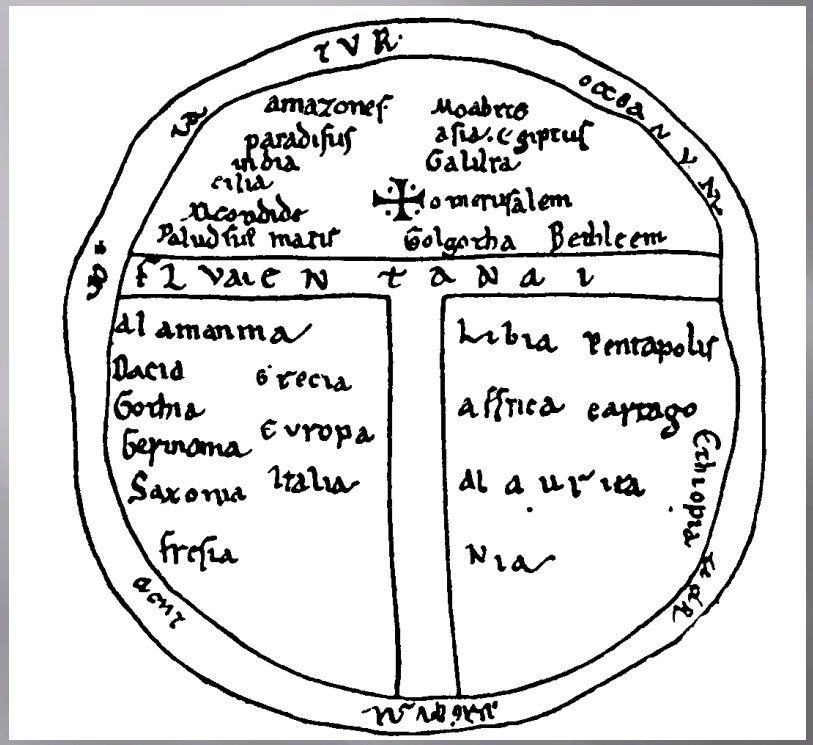
St. Isidore of Seville, 600 - 636 CE

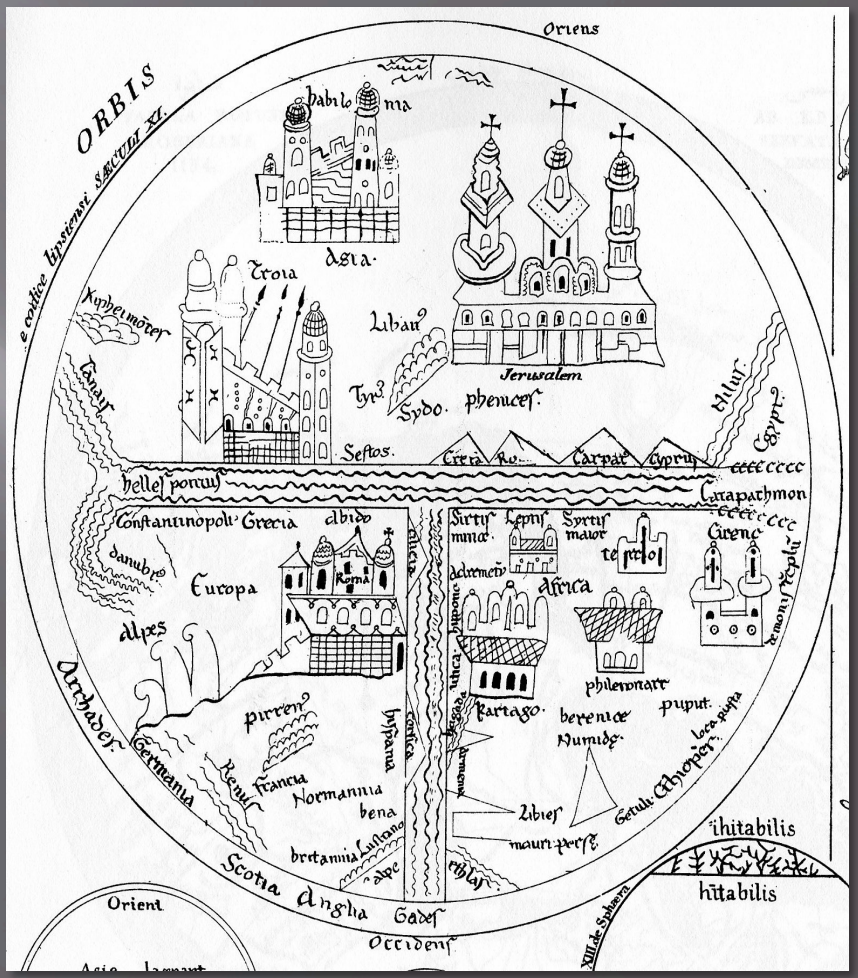
(#205)

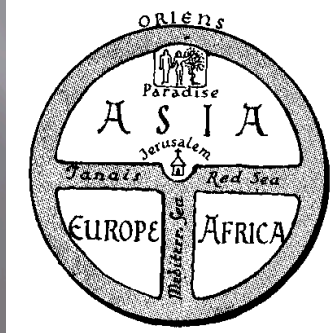
- *Etymologiarum sive Originum libri XX*
- This seminal work was initially compiled in manuscript form on vellum, with drawings in red and black. The *Etymologiarum* consists of 20 books on 175 leaves, including a T-O *mappamundi*, and was meant to be an encyclopedia that summed up the knowledge accumulated by early seventh century Europe.
- Ultimately became the FIRST PRINTED map (1472), after centuries of hand-drawn manuscript versions

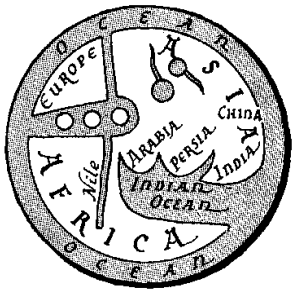
So significant was its impact that during the following centuries it served as a model of style and composition, as well as a primary source for many medieval writers.

Examples of T-O maps

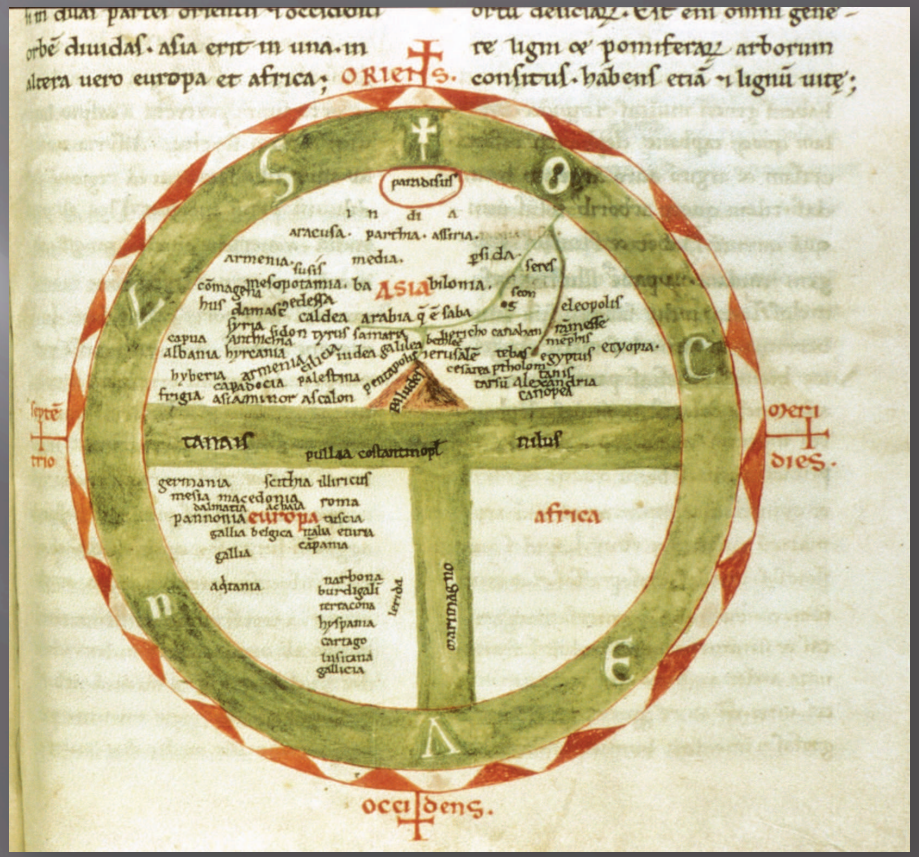




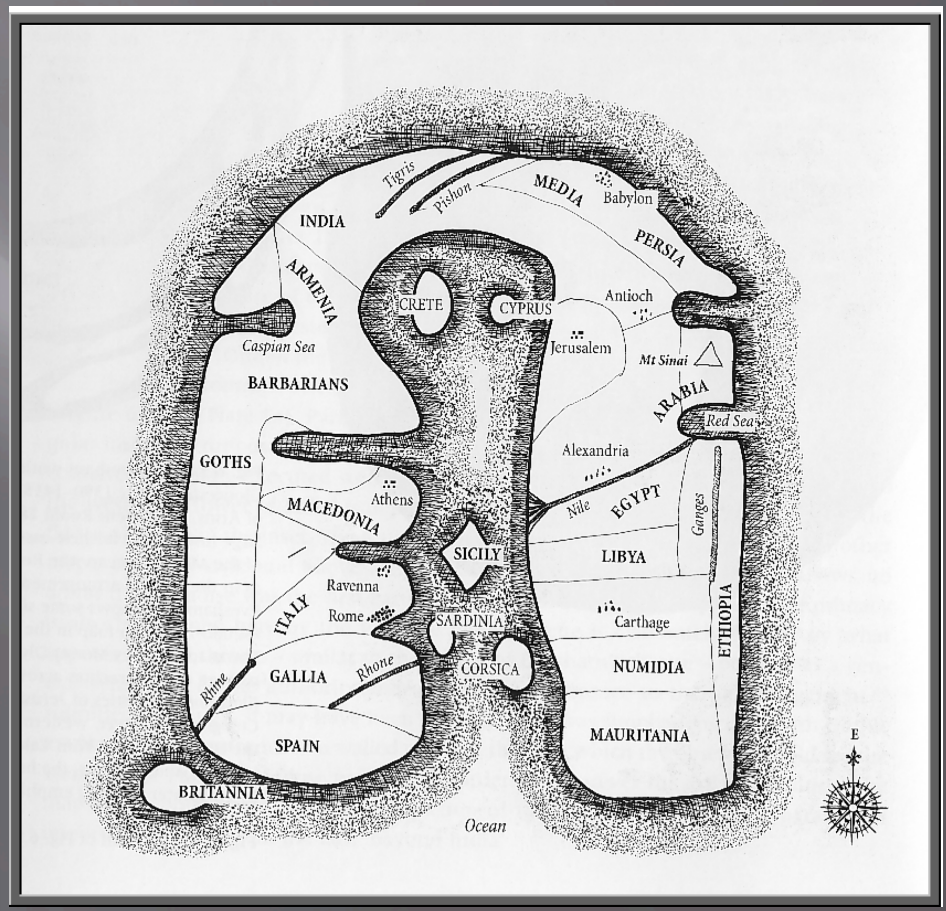




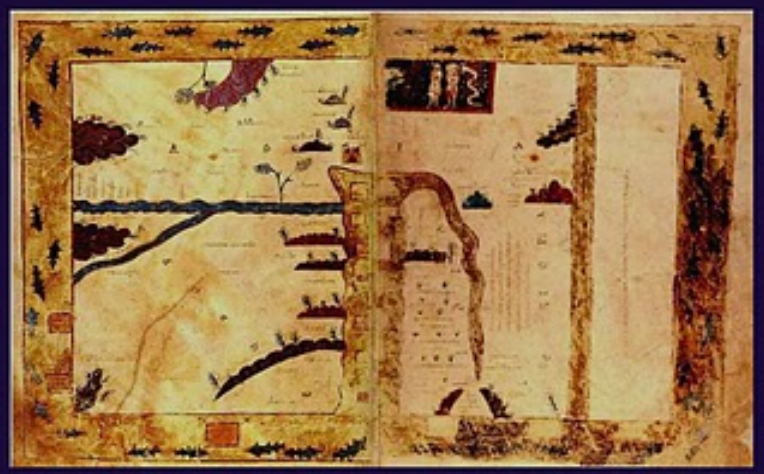
Examples of T-O maps



Map of Albi, 750 CE (#206)



Beatus of Liébana ca.776 (#207)



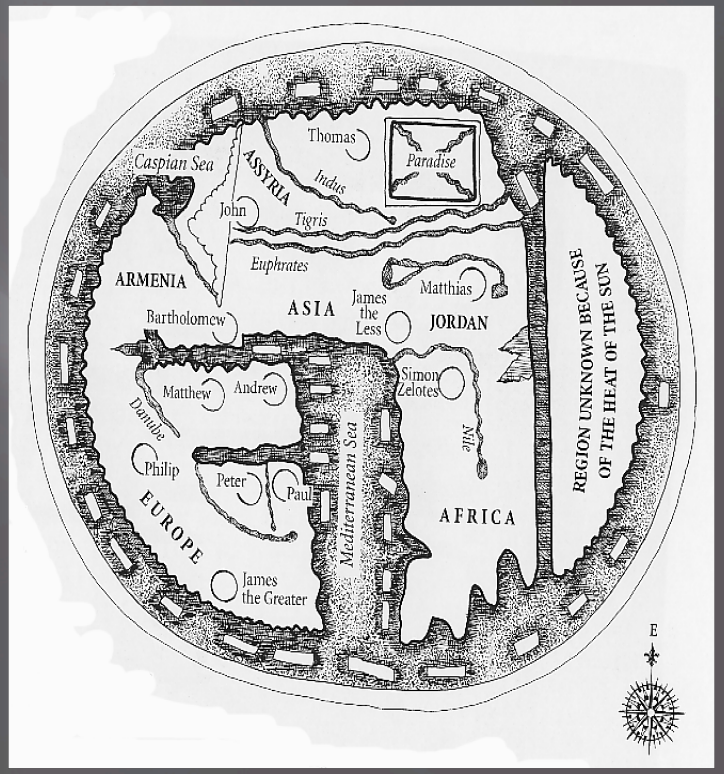
926 - Beato de San Miguel de Escalada

Beato de Turín. Siglo XII

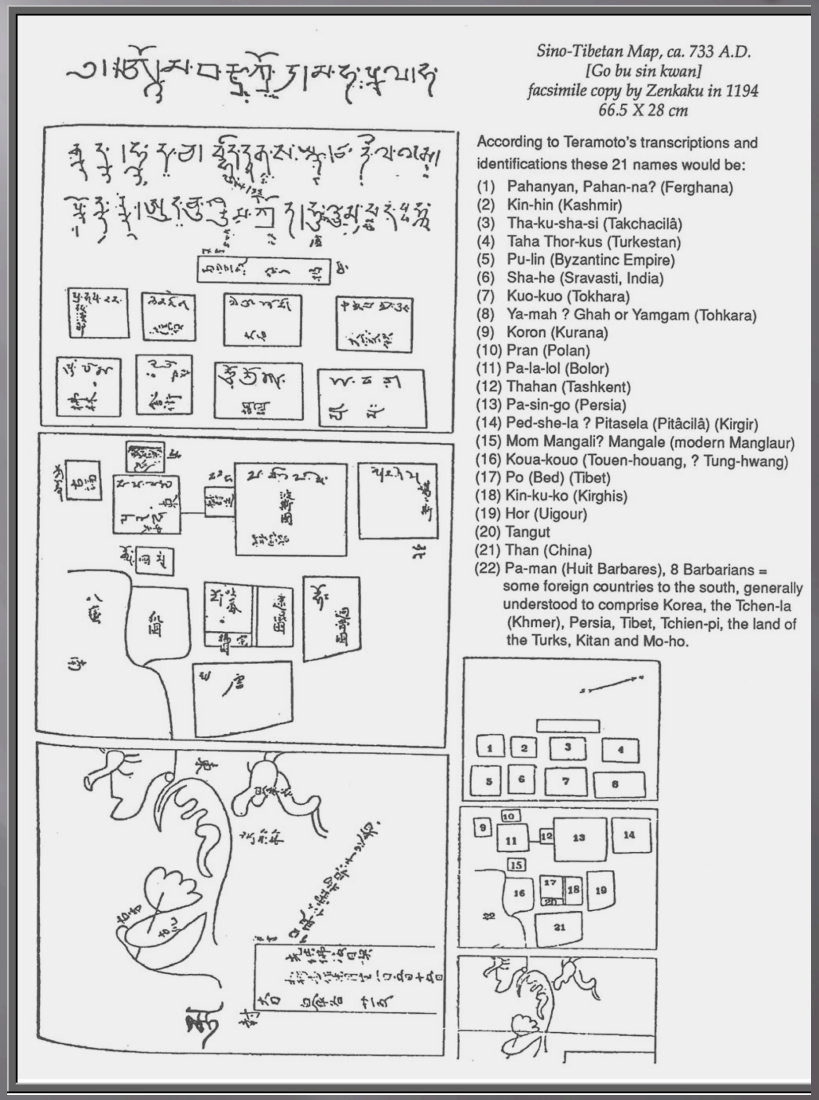
Beato de Manchester. Siglo XII

1220 Beato de las Huelgas

Beatus of Liébana ca.776 (#207)



Go bu sin kwan [Sino-Tibetan World Map] 733 (#208)

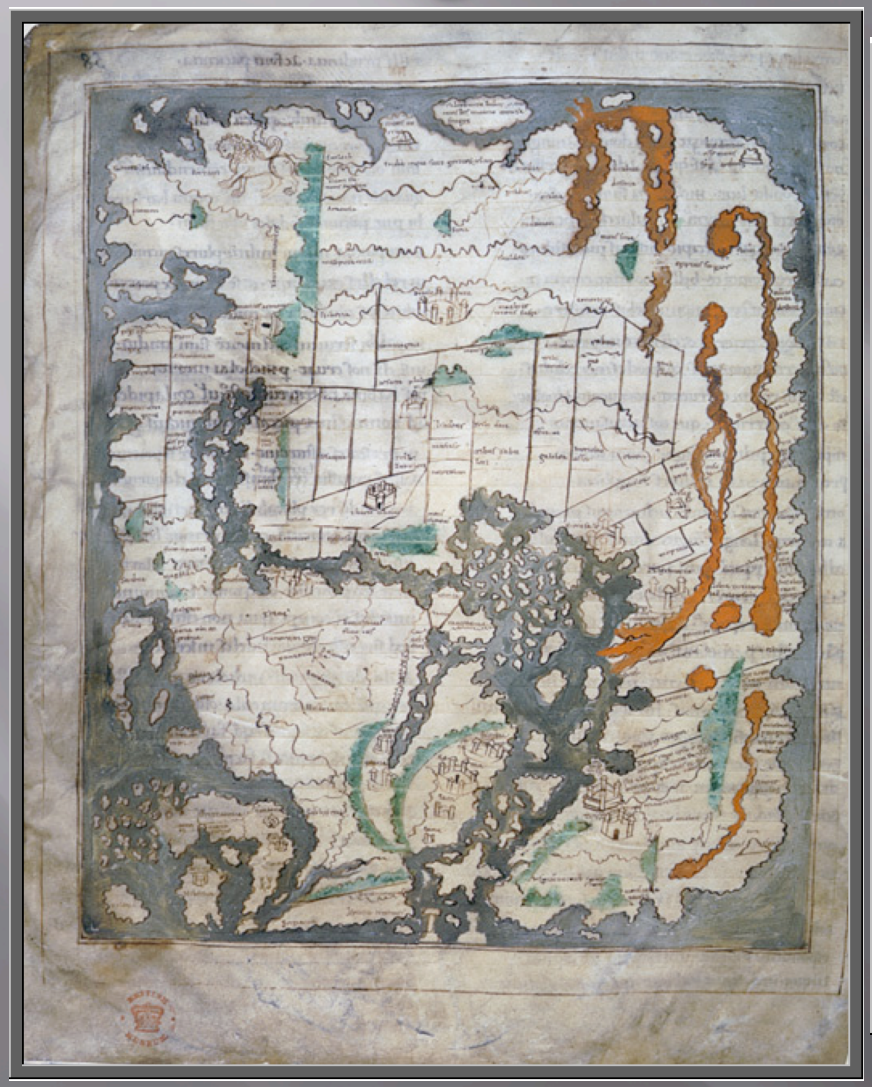


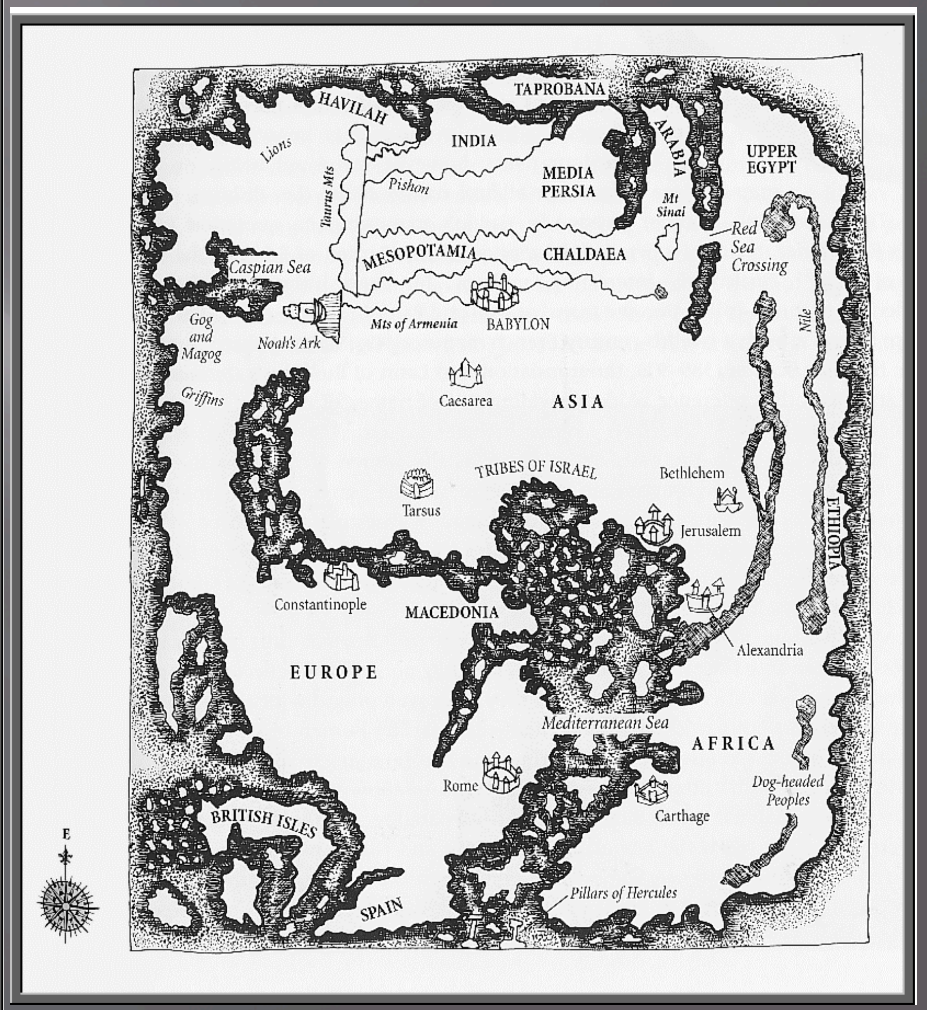
Sino-Tibetan Map, ca. 733 A.D.
[Go bu sin kwan]
facsimile copy by Zenkaku in 1194
66.5 X 28 cm

According to Teramoto's transcriptions and identifications these 21 names would be:

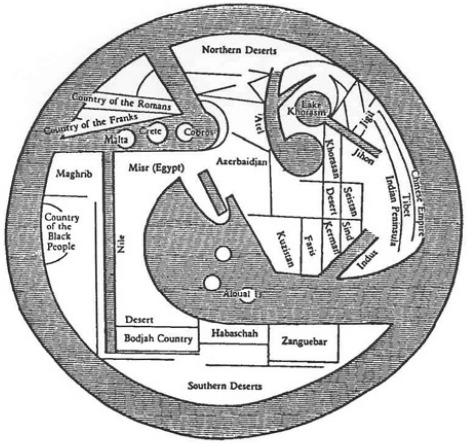
(1) Pahanyan, Pahan-na? (Ferghana)
(2) Kin-hin (Kashmir)
(3) Tha-ku-sha-si (Takchacilâ)
(4) Taha Thor-kus (Turkestan)
(5) Pu-lin (Byzantinc Empire)
(6) Sha-he (Sravasti, India)
(7) Kuo-kuo (Tokhara)
(8) Ya-mah ? Ghah or Yamgam (Tohkara)
(9) Koron (Kurana)
(10) Pran (Polan)
(11) Pa-la-lol (Bolor)
(12) Thahan (Tashkent)
(13) Pa-sin-go (Persia)
(14) Ped-she-la ? Pitasela (Pitâcilâ) (Kirgir)
(15) Mom Mangali? Mangale (modern Manglaur)
(16) Koua-kouo (Touen-houang, ? Tung-hwang)
(17) Po (Bed) (Tibet)
(18) Kin-ku-ko (Kirghis)
(19) Hor (Uigour)
(20) Tangut
(21) Than (China)
(22) Pa-man (Huit Barbares), 8 Barbarians = some foreign countries to the south, generally understood to comprise Korea, the Tchen-la (Khmer), Persia, Tibet, Tchien-pi, the land of the Turks, Kitan and Mo-ho.

The Cottoniana or Anglo-Saxon Map, 995 (#210)

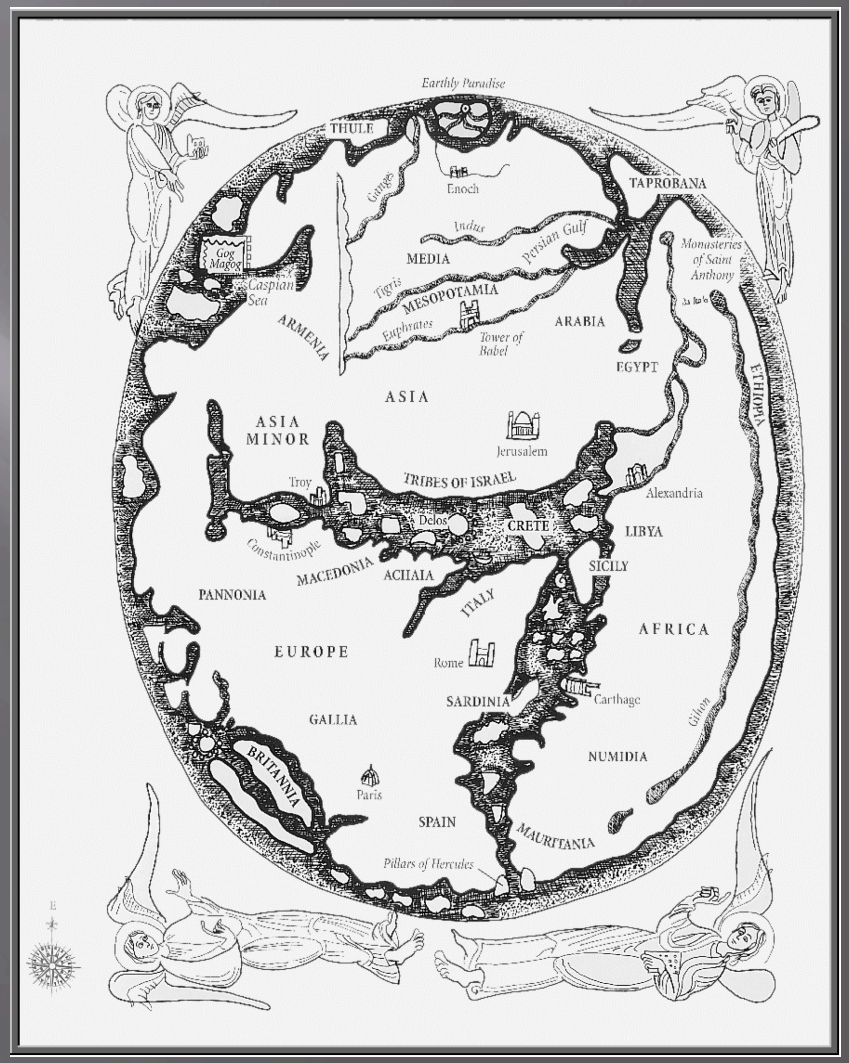




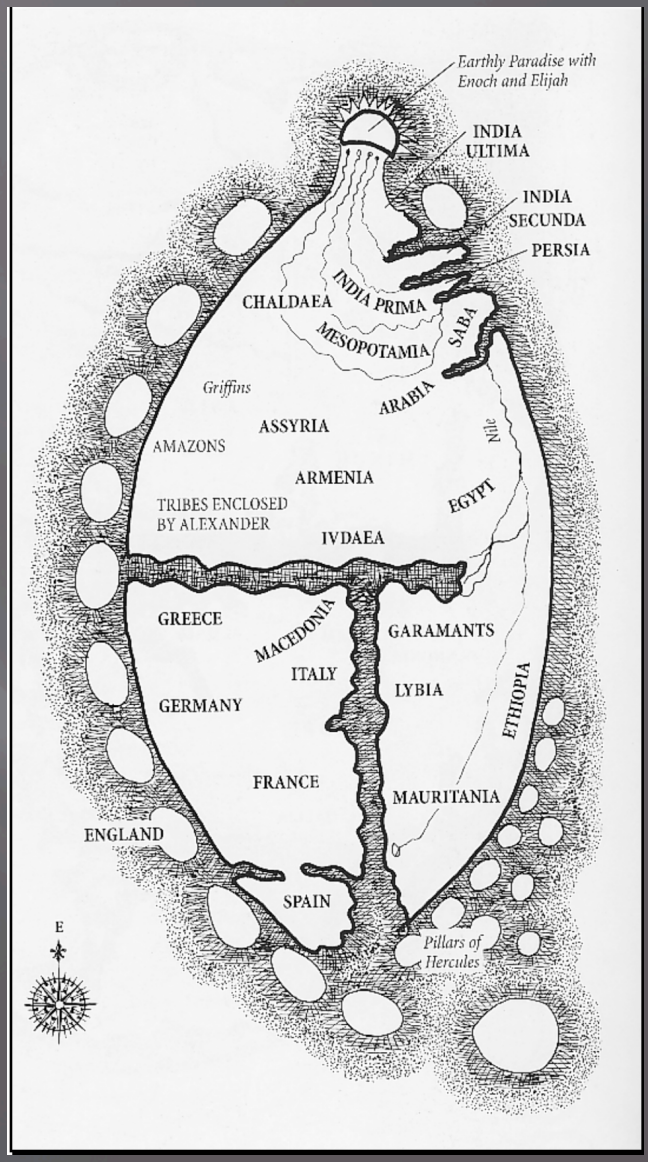
Ibn Hawqal's world map, Arabic, 980 (#213) oriented with South at the top



The Sawley Map, a.k.a. World Map of Henry of Mainz 1188 (#215)



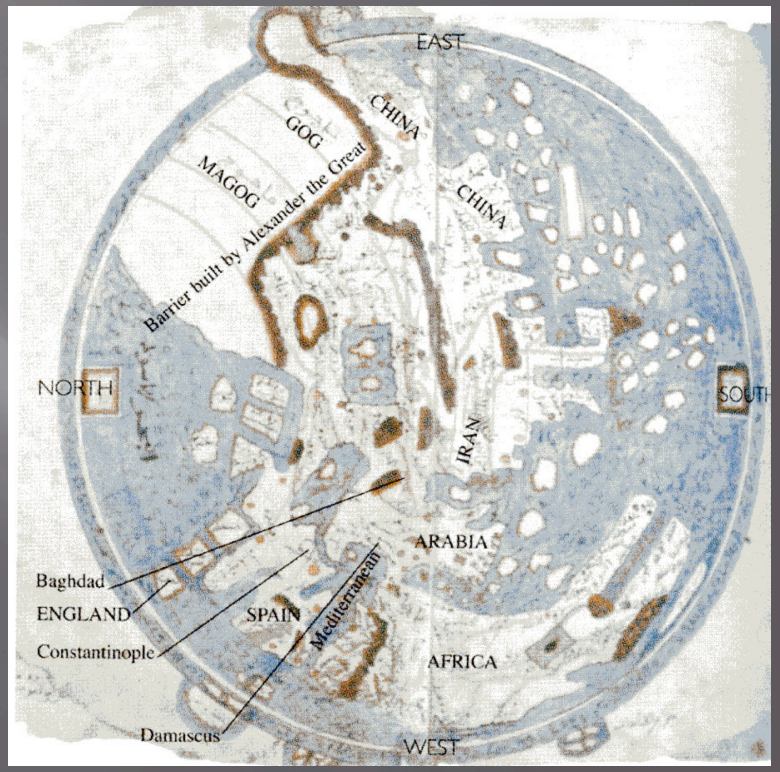
Zonal world map from Liber Floridus, 12th century (#217)



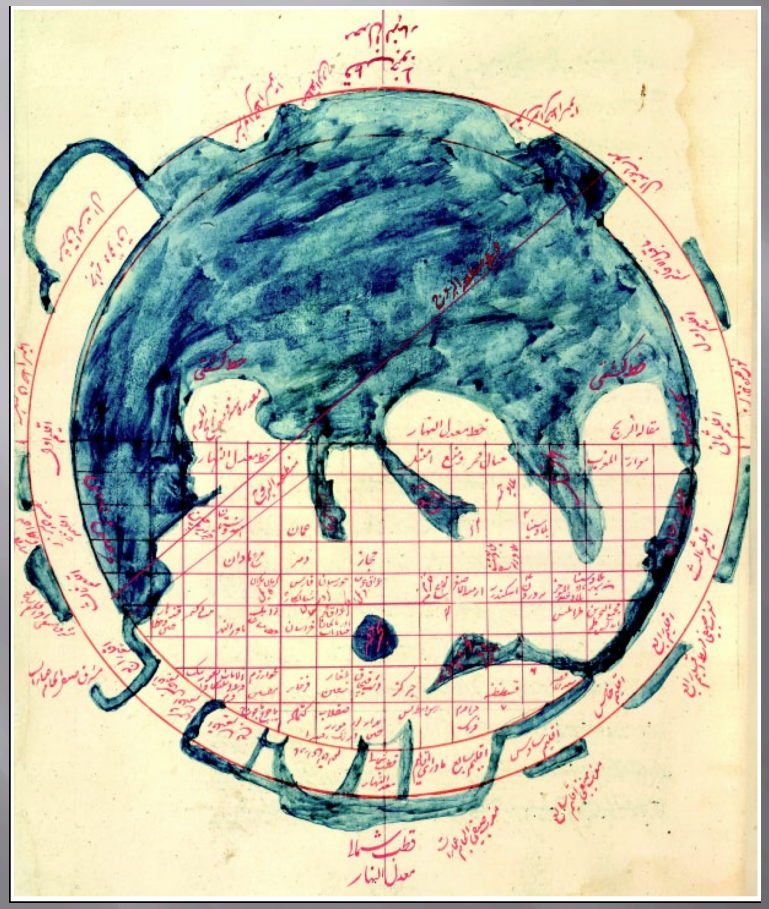
A copy of Al-Idrisi world maps from the Nuzhat al-Mushtāq fi'khtirāq al-āfāq a.k.a Tabula Rogeriana, originally oriented with South at the top, 1154 (#219)

Ibn Sa'id's world map from the *Kitab al-bad' wa-al-ta'rikh*, 13th century

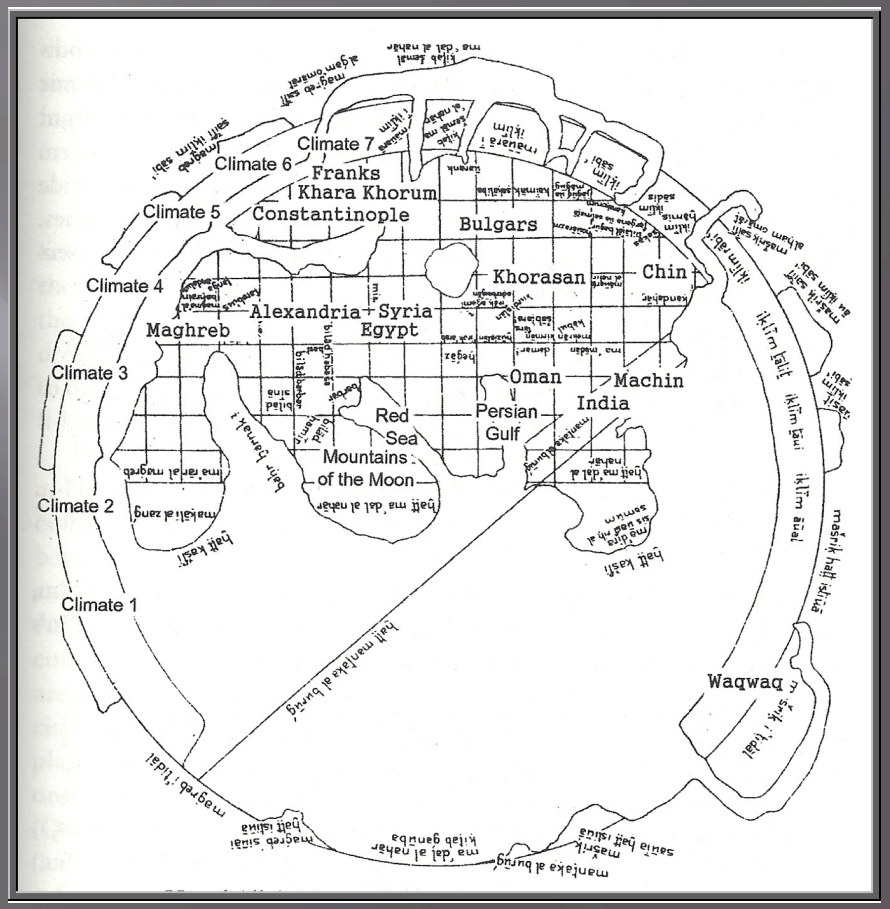
(oriented with East at the top) #221



World map of Hamd Allah Mustawfi/al-Qazwini, 1258 (#222)



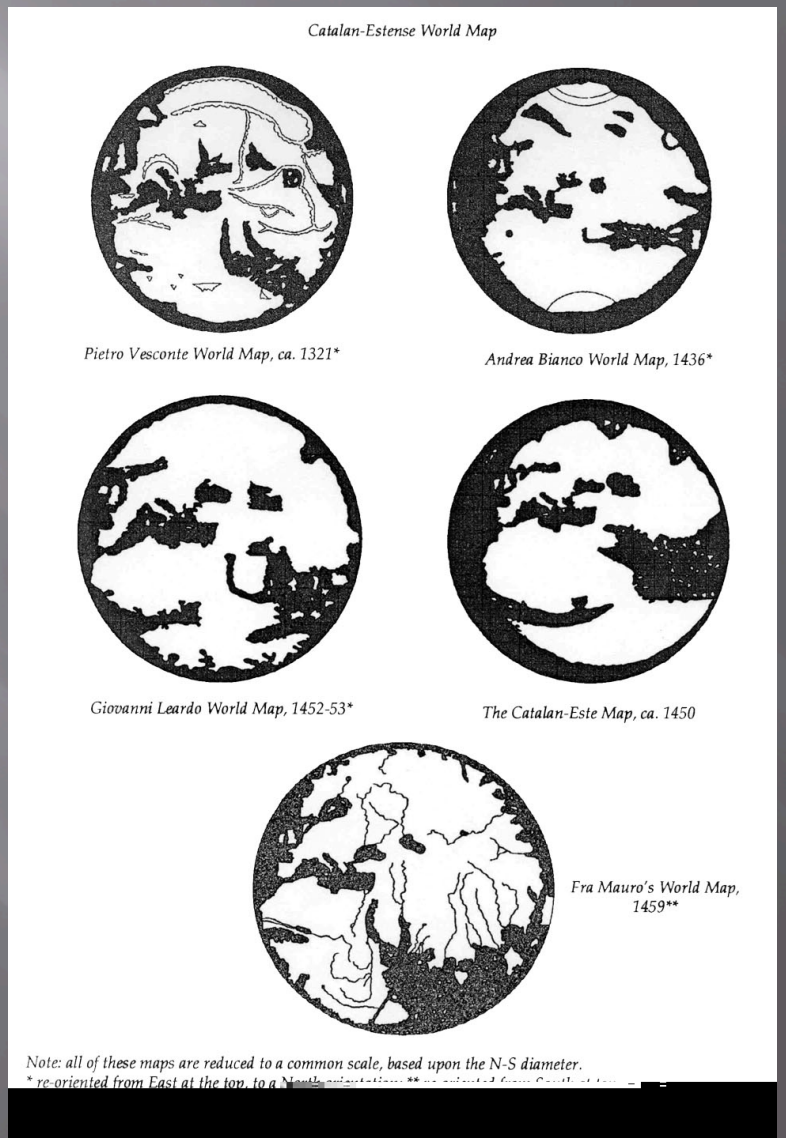
Oriented with South at the top



Re-oriented & translated with North at the top

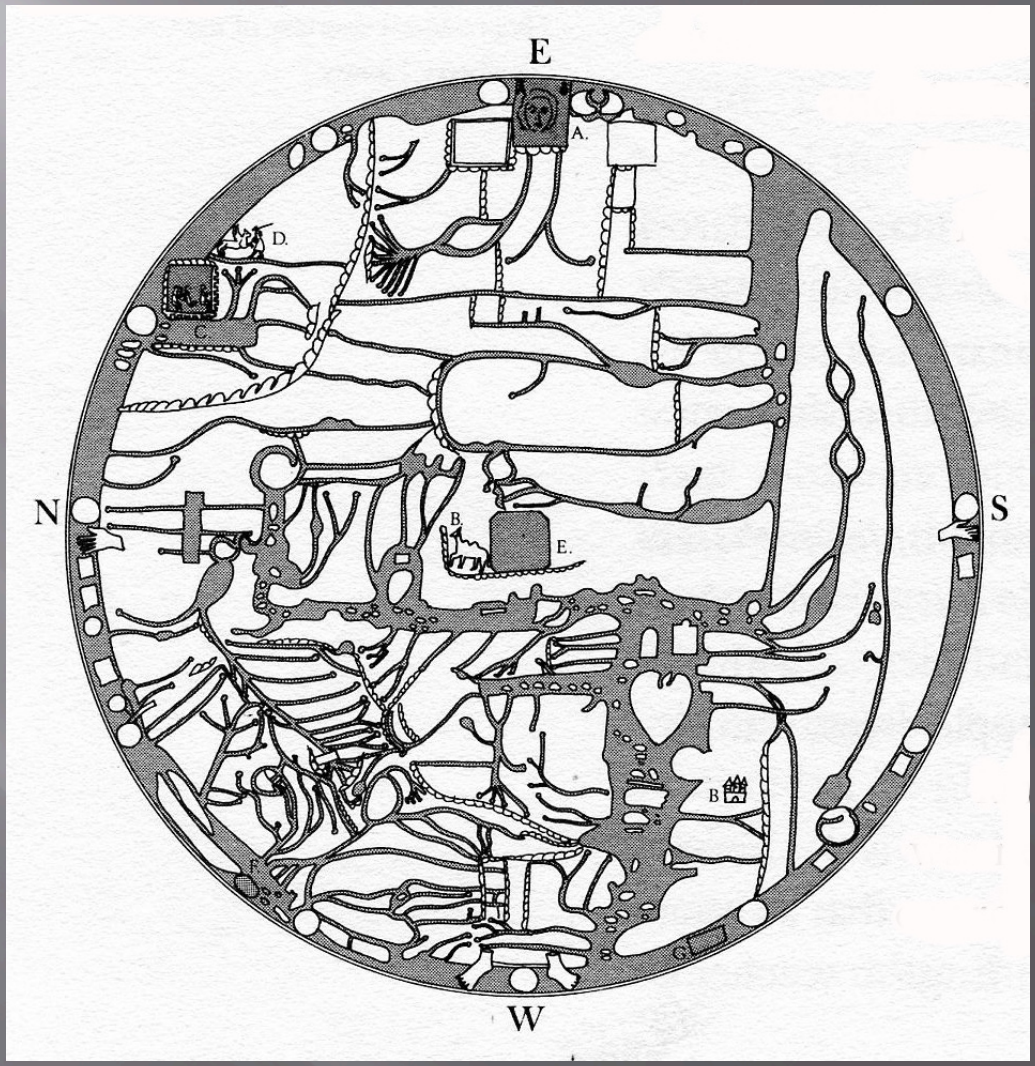
Pietro Vesconte, 1320 (#223)

Late Medieval World Maps



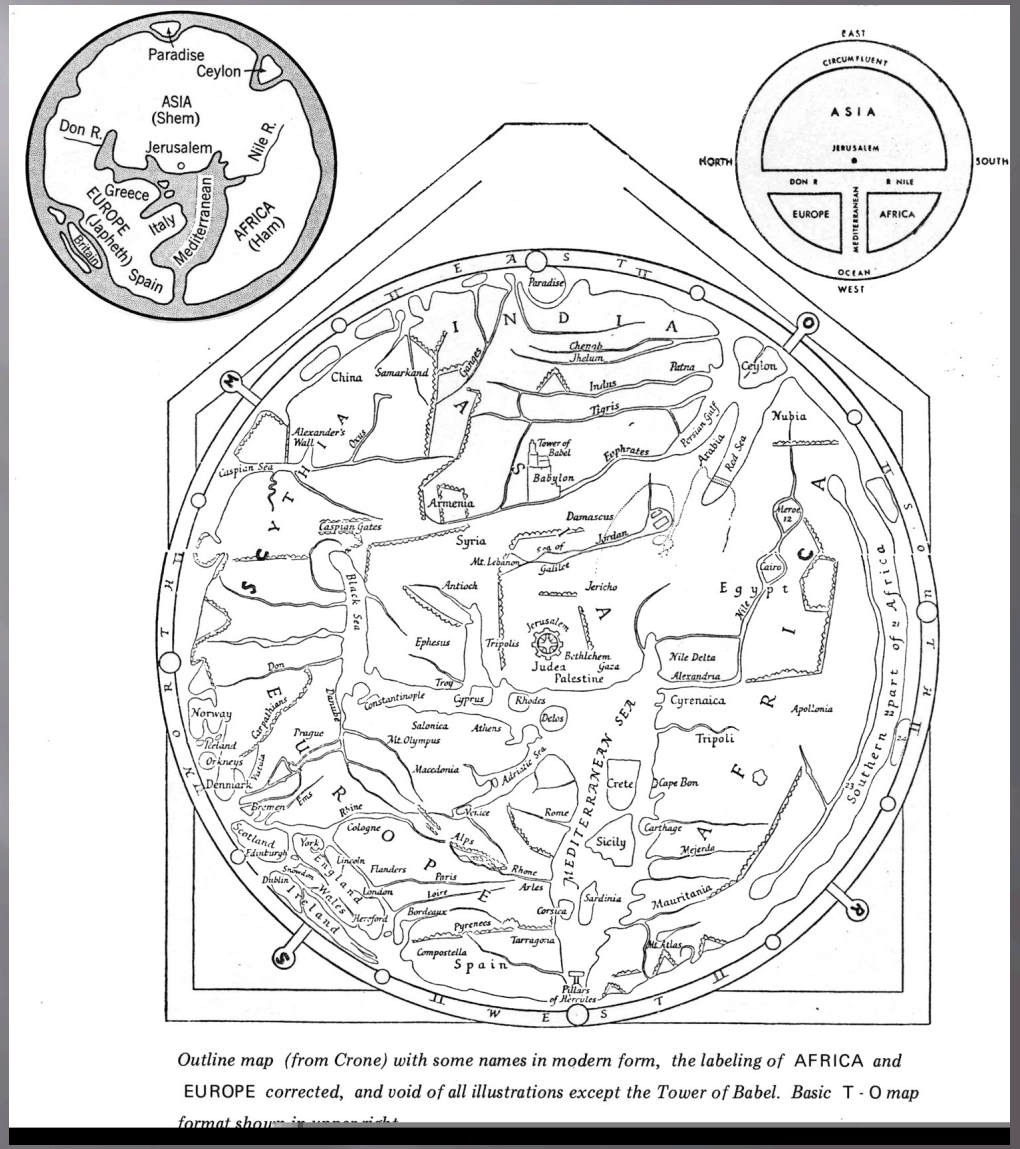
The Ebsorf Mapamundi, 1234 (#224)

The Ebstorf in Outline



The Hereford Mappamundi, 1290 (#226)

Hereford in Outline



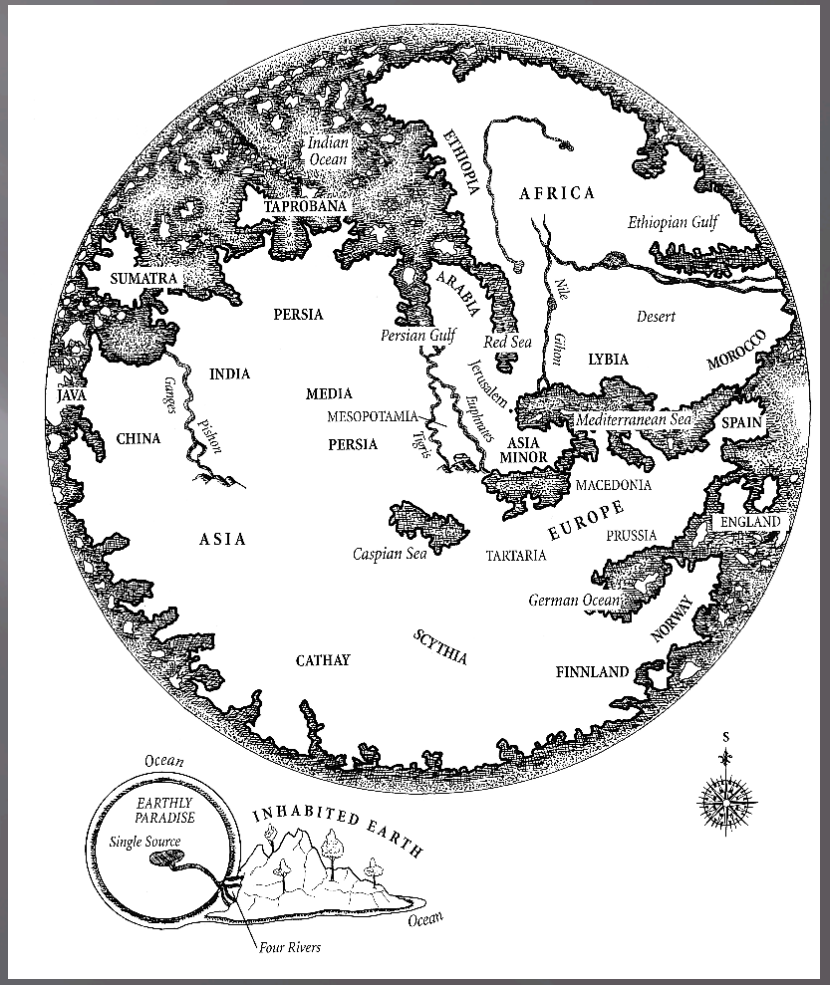
Outline map (from Crone) with some names in modern form, the labeling of AFRICA *and* EUROPE *corrected, and void of all illustrations except the Tower of Babel. Basic* T - O *map format shown in upper right.*

The Catalan Atlas, 1375 (#235)

/_____116° _____/

Fra Mauro 1459 *mappamundi*

oriented with South at the top (#249)

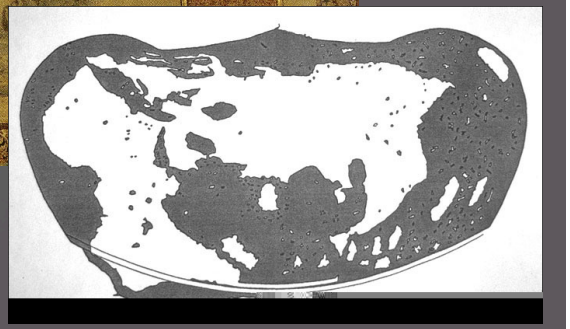


/_____125°_____/

Wieder-Woldan Map 1485 (#255)

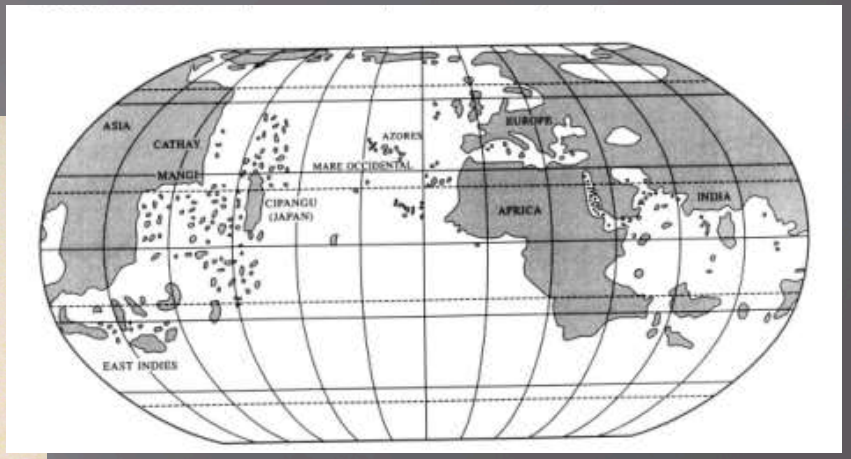
Henricus Martellus [Germanus], 1490

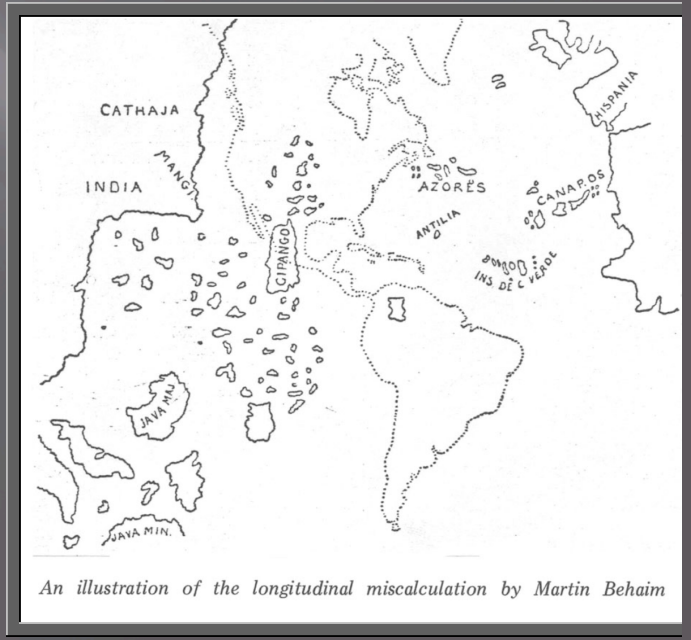
(#256)



The Behaim Globe, 1492 (#258)

Oldest existing globe but covers only 234°





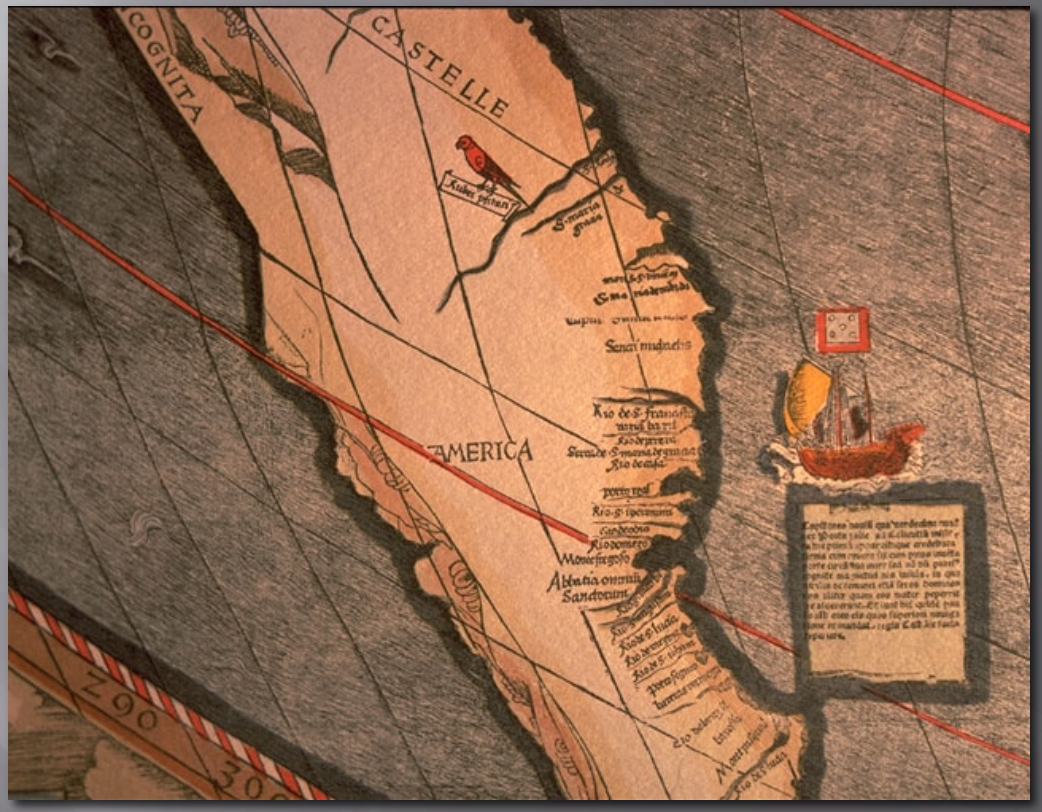
An illustration of the longitudinal miscalculation by Martin Behaim

Martin Waldseemüller, 1507

(#310)

230° (real world longitudinal distance 131°)

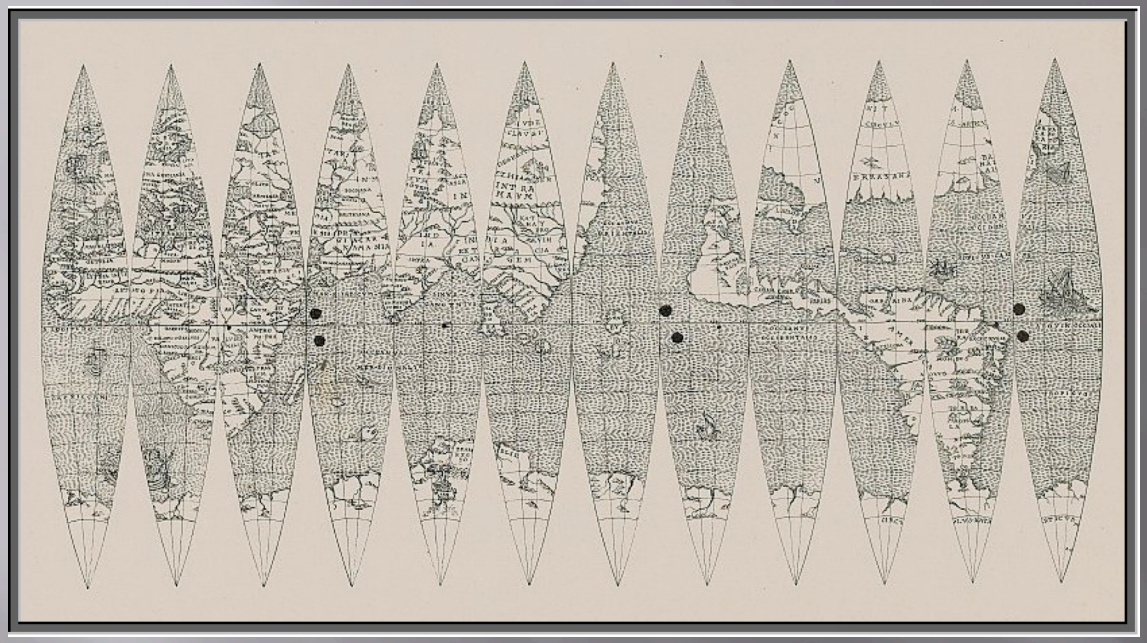
America



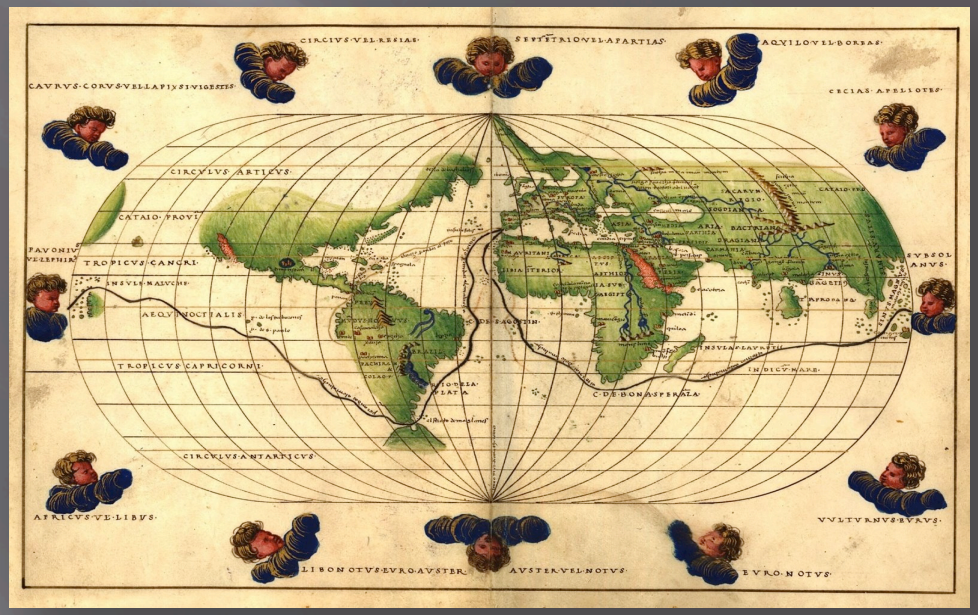
The first use of the name "AMERICA" placed on what is now South America

, Universale Descrittione Di Tutta la Terra Conosciuta Fin Qui, by Donato Bertelli, 1568

Note that North America is shown as attached to Asia

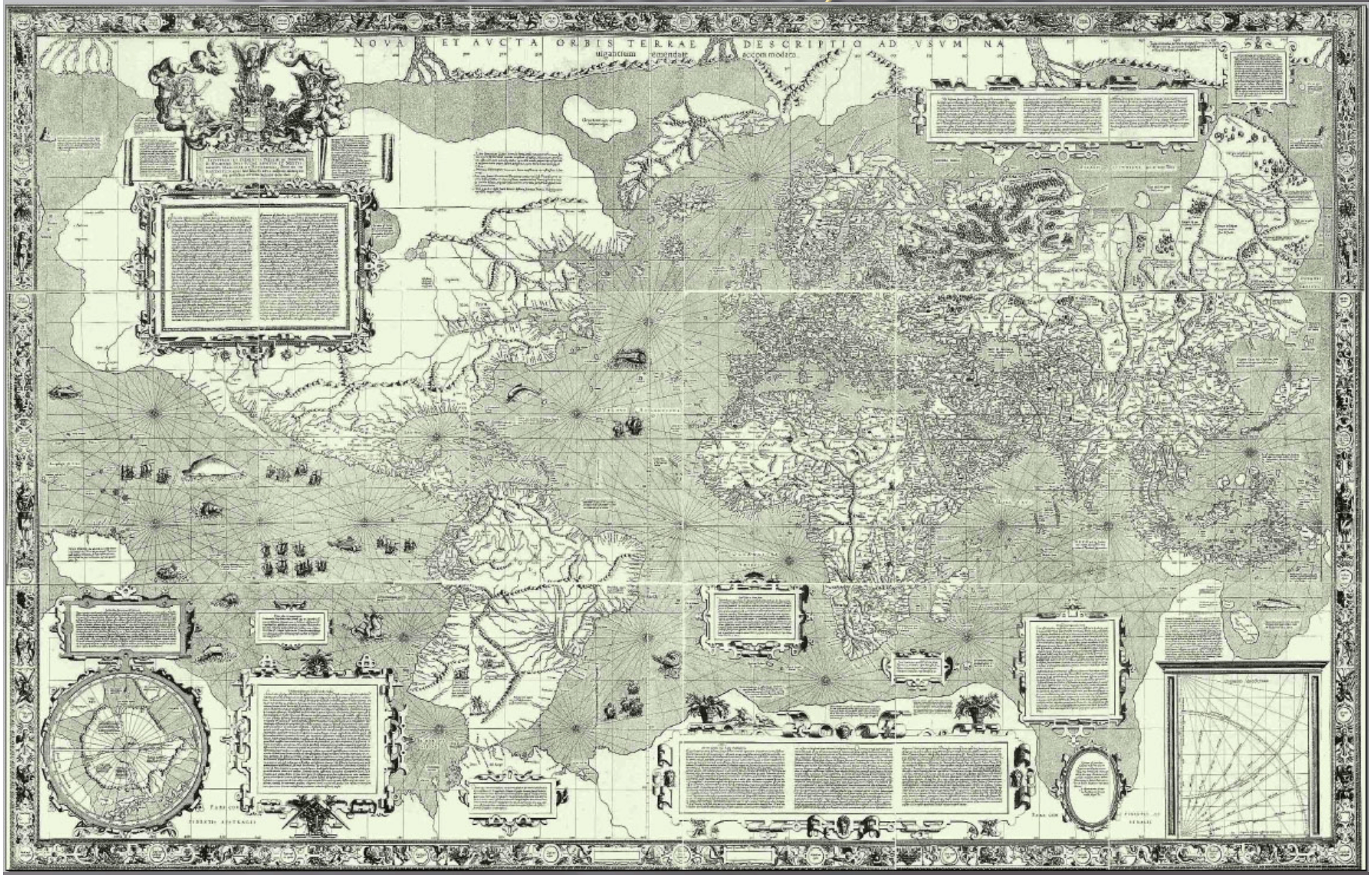


Bailly's Globe [Verrazano Globe] 1530 (#351)

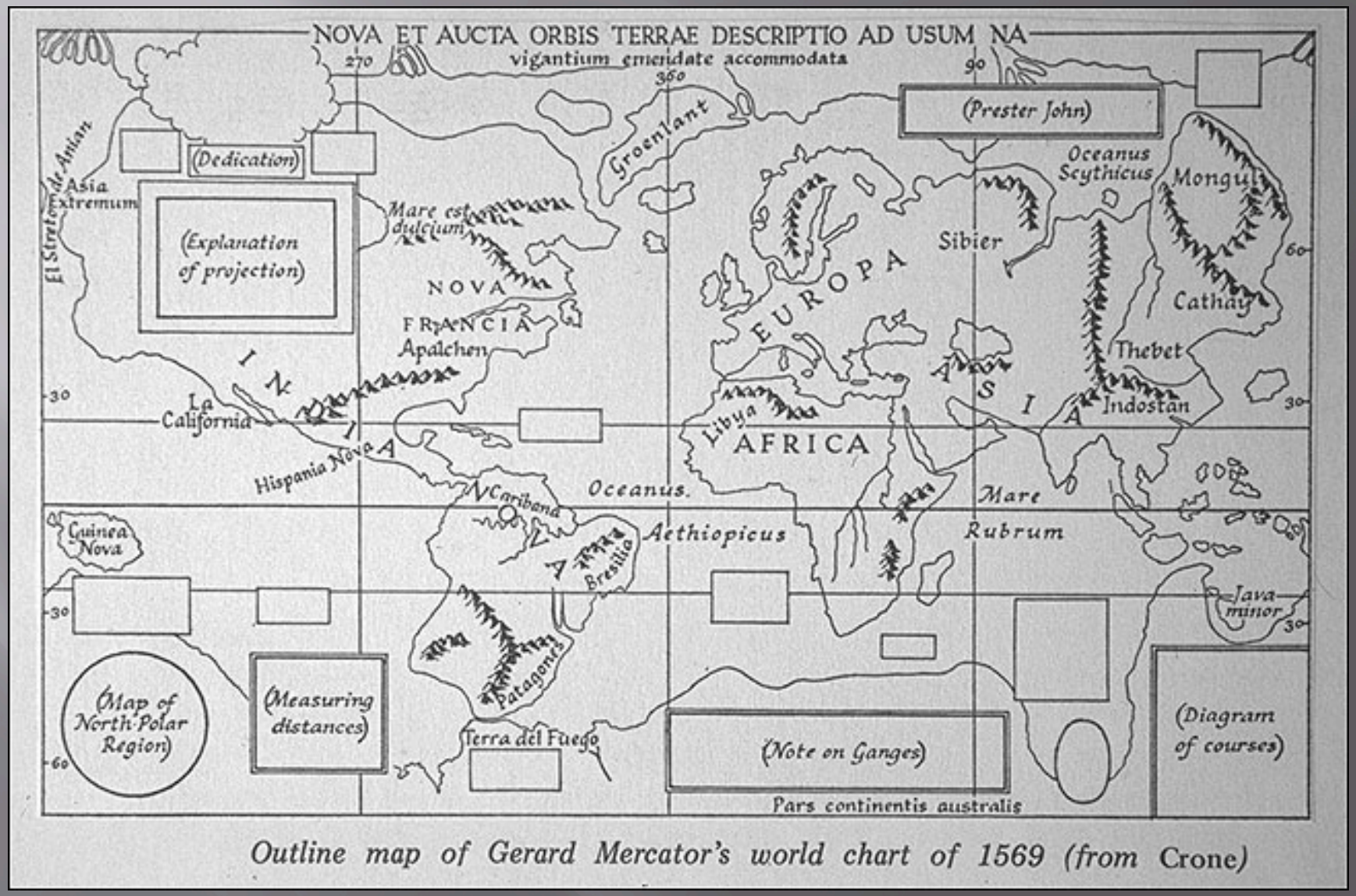


Battista Agnese World Map, 1544 (#371)
Showing Magellan's circumnavigation

Gerard Mercator, 1569 (#406)

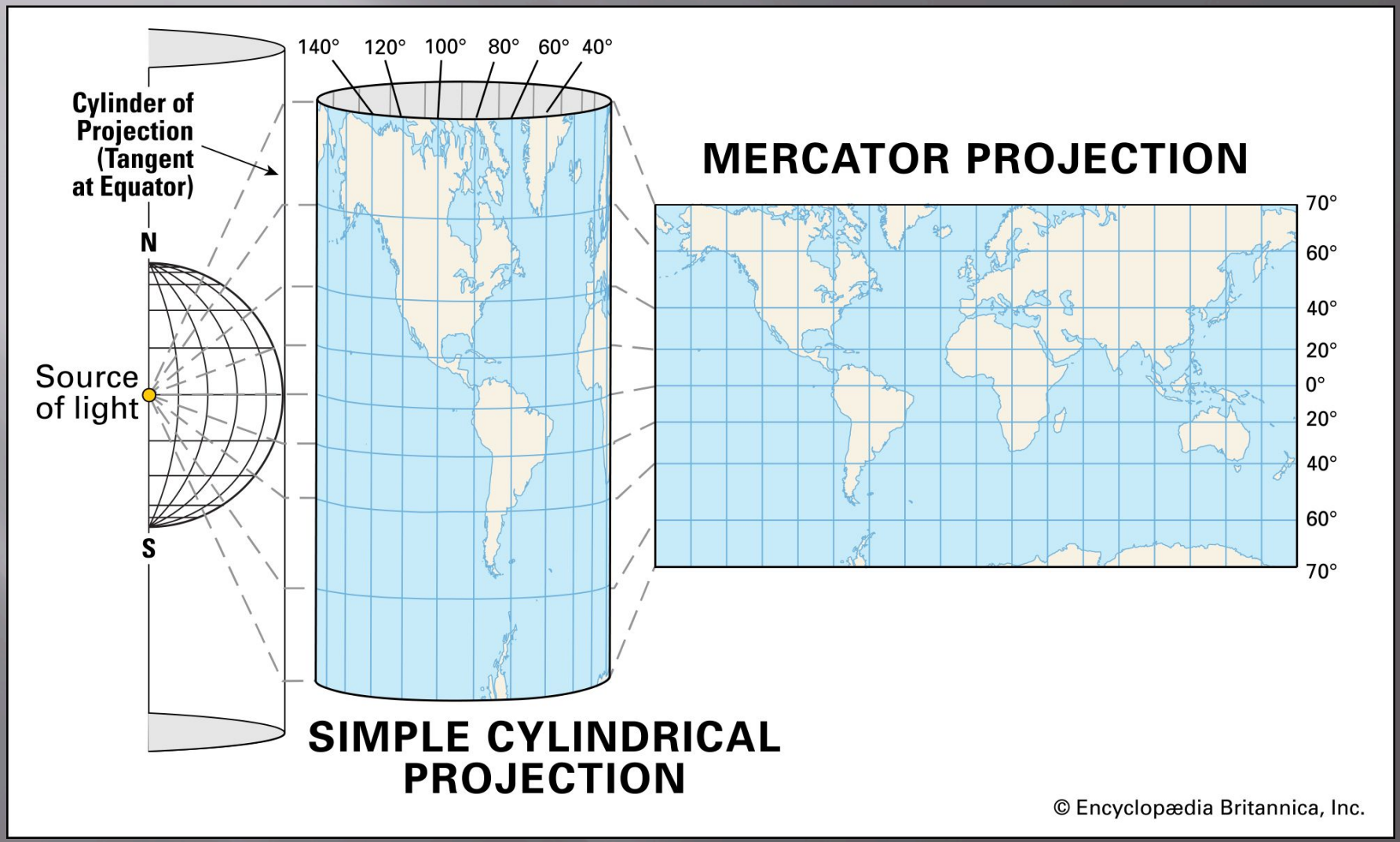


Mercator



Outline map of Gerard Mercator's world chart of 1569 (from Crone)

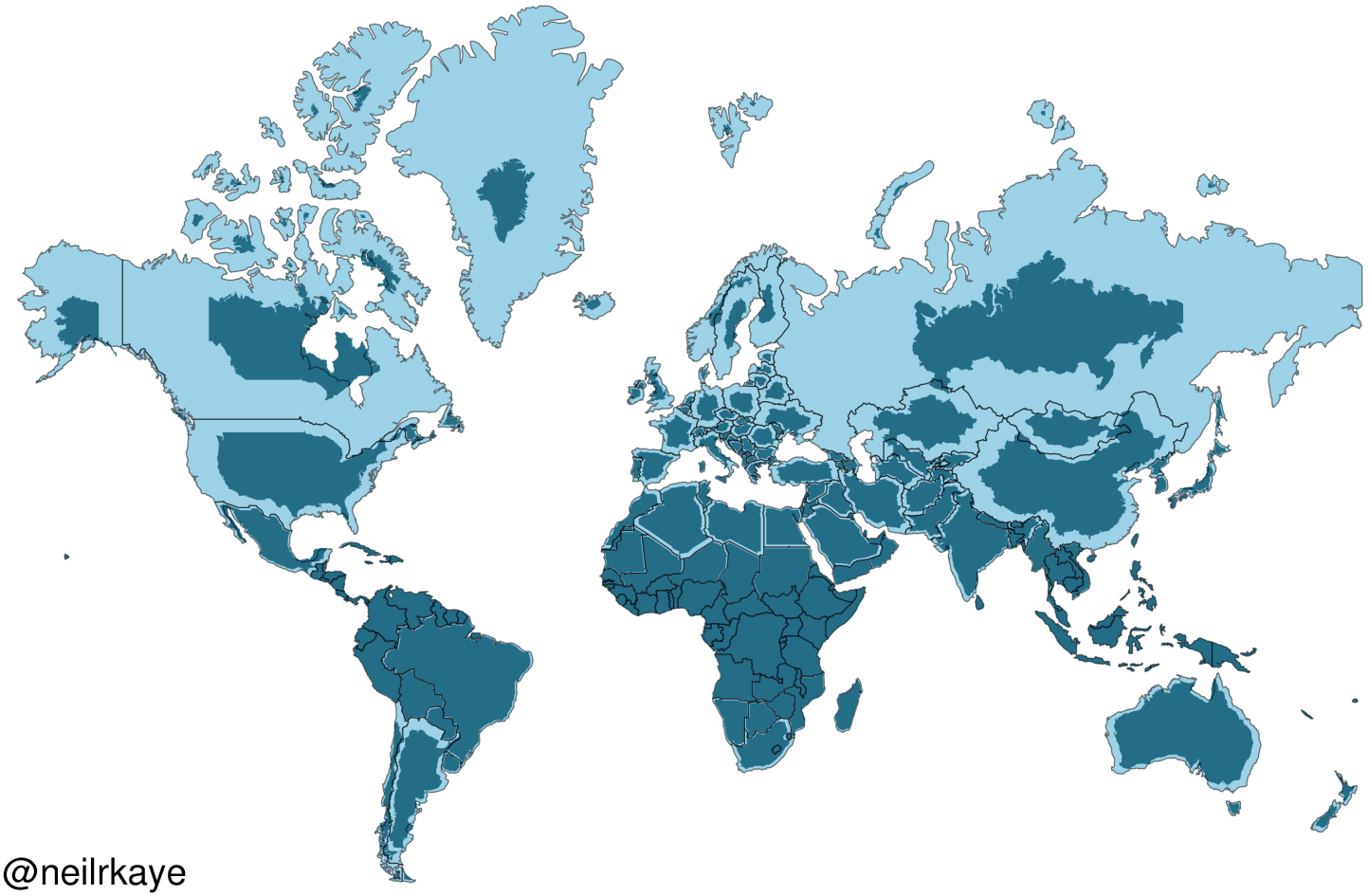
Mercator Projection



© Encyclopædia Britannica, Inc.

Use of the Mercator projection

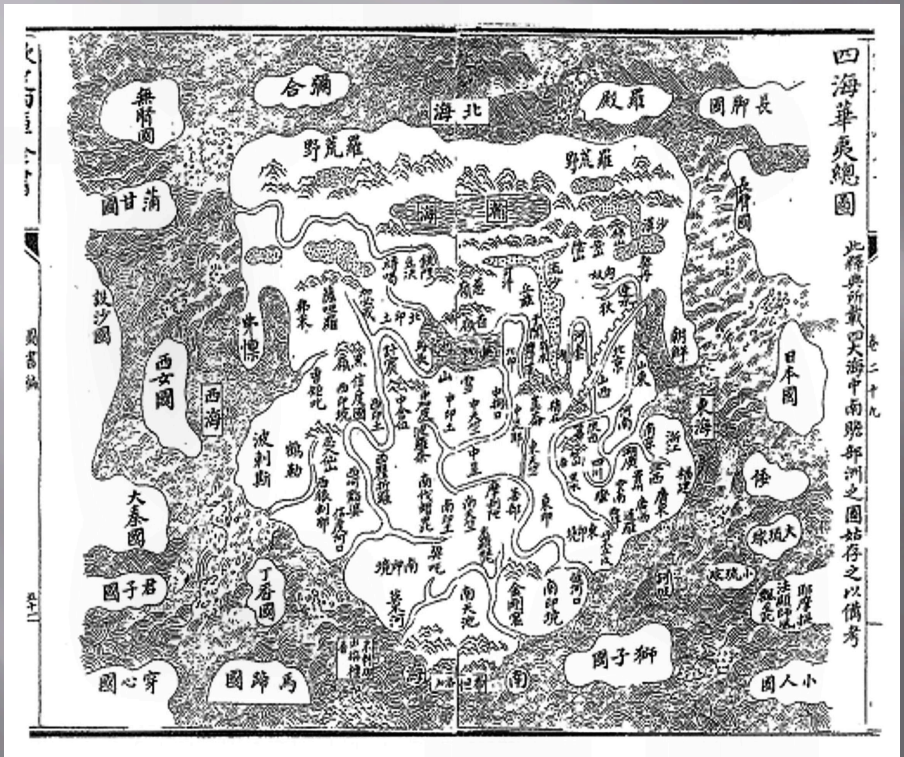
World Mercator projection with true country size added

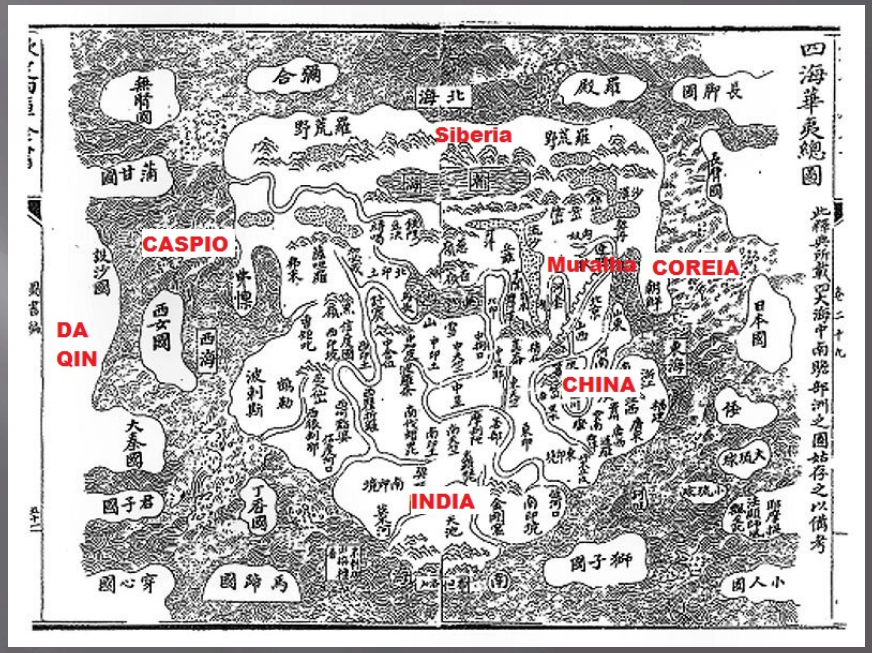


@neilrkaye

The Sihai Huayi Zongtu

[General Map of Chinese and Non-Chinese Territories within the Four seas], 1532





Yoktae chewang honil kangnid, the *"Kangnido"* 1402 (#236)

One of the first maps to show that reasonable shape of Africa almost 90 years before the Europeans knew

Nansenbushu Bankoku Shoka no Zu, 1710 (#510)

Ch'onhado from Chonha Chido
[Map All Under Heaven] (#231)

1 - China; 2 - The Mountain of Man's Origin;
3 - The Land of Superior Men; 4 - The Land of Women;
5 - Land Where It Is Hard To Live;
6 - Mountain of Fire Spirits [who control all fire];
7 - Great Circumference Mountain;
8 - All White Mountain; 9 - Pusang [America ?];
10 - Land of White People; 11 - India;
from H.B. Hulbert.

Complete Map of the Nine Border Towns of the Great Ming and of the Human Presence and Travel Routes of the Ten Thousand Countries, 1663

TIMECHARTS OF HISTORICAL CARTOGRAPHY

I. ANTIQUITY.

Chaldean Influence

600

Hanno. Circumnavigation of Africa

Scylax of Caryanda in India

500

Travels of Herodotus

The idea of **SPHERICAL EARTH** AND THE **ZONES**
Pythagoreans, c.470 — Aristotle, (384-322) Eudemus, tropics at 24°

400

Pytheas: *measures the latitude of Massilia, reaches British Isles, records Thule*

Alexander the Great

300

Hypocrates – seven **climates** *(Eudoxus?)*

HIPPARCHUS cc. 150
- 360° system of lat + long. -es
- Determ of longitude
- Conic projection
- Astrolabe

200

Survey of Italy. Julius Cæsar

Pei Hsiu, 224-273
- *map of Chinese Empire (lost)*
- *principles of cartography*

100

DEVELOPMENT OF Lat.+Long. SYSTEM

IONIAN GEOGRAPHERS

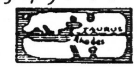
Anaximander 611-546 *credited with first map*

DISK-SHAPED EARTH

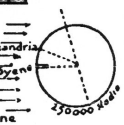
Hecatæus. *Geography*

Democritus 450-360

Dicæarchus 326-296
- *Measurement of mountains*
- *Geography of Greece*



ERATOSTHENES 276-196 *measurement of Earth*



Crates. *Globe*

Posidonius, *measurement of Earth* 130-50

B.C. / A.D.

Agrippa. *Map of the Empire*
Strabo. *Geographia – main source-book* completed 19 A.D.

Pomponius Mela. *Cosmography*

CARTOGRAPHY

Pynax of Dionysius Periegetes

100

MARINUS of Tyre, *System of geography - plain chart* cc. 120

PTOLEMY (cc. 90-168)
- *Geography with 8000 place names*
- *Atlas of 28 maps*
- *Geocentric system of planets*
- *Projections*

200

Severus tablet of Rome

ROMAN

Solinus, *Memorabilia*

300

PEUTINGER TABLES

TIME CHARTS OF HISTORICAL CARTOGRAPHY

II. MIDDLE AGES

400 — St. Hieronymus, maps
Julius Honorius, Excerpta (map lost)
Paulus Orosius, Historiæ adv. Paganos (map lost)

Macrobius, Zone maps
Stadiasmus, Sailing directions
Marcianus, List of cartographers

500 — Cosmas Indicopleustes

DARK AGES OF CARTOGRAPHY

Mosaic map of Madaba

600 — Isidorus de Sevilla, Origines small maps

Ravennatus, Cosmographia (map lost)

700 — Albi map

Chia Tan, Map of China 30° square (lost)

St. Beatus, Commentarii in Apocalypsin

800 — Dicuil, Silver plates (lost)

Alkhwarizmi, Tables of lat. & longitudes
Abu Jafar of Khiva, Map of World (lost)

900 — T maps

Jacubi, Book of Countries, maps
Istakhri, Map of the World
Masudi, Meadows of Gold
Zarkala, Toledo–Bagdad "51°30'
Islam School atlases, geometric maps
Celestial globes

ARABIC MAPS

Cottoniana
Henricus of Mainz, Imago mundi

1000 — CHRISTIAN MAPS

1100 — Guido of Brussels
Lambert of St. Omer, Map with zones 1120

EDRISI MAP 1154

ROMANESQUE MAPS

1200 — MATTHEW PARIS 1200–59 { World map / Maps of England / Road maps to Jerusalem

COMPASS IN GENERAL USE

MARCO POLO'S TRAVELS

Hereford map by Richard de Haldingham
Ebstorf map, 1280

Pisan chart, 1280
Carignano, 1300
Pietro Vesconte 1311–27
Dulcert 1339

1300 — REVIVAL OF PTOLEMAIC CHARTS excellent delineation of Mediterranean

Catalan Atlas Deccan penins. 1375
Atlante Mediceo

Vesconte 1320

Buondelmonte, Isolario Aegean.
Andrea Bianco Atlas 1436

1400 — Pierre d'Ailly's maps.
Latin translation of Ptolemy, (J. Angelo) Par. mer. 1427
Claudius Clavus (Swartho), Map of Scandinavia
Benedictine maps, and "Cusa" map, Central Europe
Leardo map, 1448
Fra Mauro map, 1459 } circular World maps

PORTUGUESE TRAVELS

RAISZ

GERMANY, NETHERLANDS

PTOLEMY EDITIONS

over 60 editions mostly with addition of "Tabulae Modernae"

Nicolaus Germanus *introduces trapezoidal (Donis) projection and adds modern maps to his Ptolemy ms. (Italy) 1466–82.*

Ulm Ptolemy. *N Germanus. Woodcuts. 1482–86*

Eichstätt and Martellus version of "Cusa" map of Central Europe, 1490

Martellus Germanus, *World showing Portuguese discoveries*

BEHAIM GLOBE, *first detailed terrestrial globe based on Ptolemy*

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1480

1490

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1520

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1530

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1540

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1550

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1560

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1610

1620

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1630

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1640

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1650

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1660

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1680

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1690

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1470 ENGRAVING AND PRINTING

1480

1490 Discovery of AMERICA

Way to INDIA

1500

1510 Albuquerque *in India*

1520 MAGELLAN'S *voyage*

GEMMA FRISIUS *triangulation*

1530 J. Fernel, *Length of arc*

1540 Cartier *on St Lawrence R*

Orellana, *on Amazon R*

Copernicus, *Solar system*

1550

1560

1570 Digges, *theodolite 1570*

DRAKE'S *voyages*

1580 Frobisher } N.W. Passage

Davis

1590 Plane table

Barents3; *NE. Passage*

1600

1610 Hudson's *voyages*

Champlain's *voyages*

Snellius, TRIANGULATION

1620

1630

1640 Tasman's *voyage*

Barometer (Torricelli)

1650 Cossacks reach Irkutsk

1660 *Pendulum clock*

1670 PICARD { *length of arc, longitudes, use of telescope*

Joliet + Marquette, *Mississippi R.*

1680 Newton, ◯ *spheroid*

1690

1700 *Kamchatka, 1696*

ITALY, SPAIN, PORTUGAL

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fl = florished v. = volumes succ. = successor of m/i = miles per one inch

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