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MINISTRY OF FOREIGN AFFAIRS  
REPUBLIC OF BULGARIA



# THE SEA BRINGS ALL THAT IS DISTANT TOGETHER

The Black Sea in the European Cartography



Abraham Ortelius, Map of the Black Sea, 1590  
Printed, coloured, 50 x 36 cm  
ASA, Dr. Simeon Simov's Collection

March 2017 - TEHRAN  
Islamic Republic of Iran

The exhibition is organized by the Diplomatic Institute with the support of the Nesebar Municipality, the Archives State Agency of the Republic of Bulgaria, the "Black sea Strandja" Association and the "GEOPAN" Centre.



•BLACK SEA STRANDJA•  
ASSOCIATION



# PONT EUXIN, MARE MAGGIORE, CARA-DENGHIZ, TCHERNO MORE

Strabo's Geographica reports that in antiquity, the Black Sea was often just called "the Sea" (ὁ πόντος). For the most part, Graeco-Roman tradition refers to the Black Sea as the "Hospitable sea", Εὔξεινος Πόντος Eúxeinos Póntos. This is a euphemism replacing an earlier "Inhospitable Sea", Πόντος Ἄξεινος Póntos Áxeinos, first attested in Pindar (c. 475 BC).

Strabo thinks that the Black Sea was called "inhospitable" before Greek colonization because it was difficult to navigate, and because its shores were inhabited by savage tribes. The name was changed to "hospitable" after the Milesians had colonized the southern shoreline, the Pontus, making it part of Greek civilization. It is also possible that the epithet Ἄξεινος arose by popular etymology from a Scythian word axšaina- "unlit", "dark"; the designation "Black Sea" may thus date from antiquity.

A map of Asia dating to 1570, entitled "Asiae Nova Descriptio", from Abraham Ortelius's Theatrum Orbis Terrarum, labels the sea Mar Maggior ("Great Sea", cf. Latin mare major).

English-language writers of the 18th century often used the name "Euxine Sea" to refer to the Black Sea. Edward Gibbon, for instance, calls the sea by this name throughout «The History of the Decline and Fall of the Roman Empire». During the empire period, the Black Sea was called either Bahr-e Siyah or Karadeniz, both meaning "the Black Sea" in the Ottoman Turkish.

It is worthy to note, that in the tenth-century geography book Hudud al-'Alam, written in the Persian language by an unknown author, the Black Sea is called "Georgian Sea", "Sea of Georgians" ("daryä-yi Gurziyan"). Old Georgian sources of 9th-14th centuries ("The Georgian Chronicles") were using the name "Speris Zğua", which means "The Sea of Speri", after the name of Kartvelian tribe Speri or Saspers, now in Turkey.



Constantinos Volanakis, Argo

Nicolas De Fer, La Mer Noire Autrefois Pont-Euxin, Appellee par les Turcs Cara-Denghis, Et par les Cosaques Czorno-More, Paris / 1705



«The sea brings all that is distant together»  
Yuan Exzarch, IX century

The earliest cartographic evidence of the Black Sea coast in antiquity is the map of the Black Sea made on the leather covering a shield from 230–240 AD. It was discovered during archaeological excavations of the fortress of Dura Europos on the Euphrates River in Syria. It predates the so called Tabula Peutingeriana (4th c.), an itinerary or guide produced by Roman engineers.

The development of commerce and navigation in the Mediterranean basin, carried out mainly by Italian city states of Venice, Genoa, Ancona, and Amalfi, required the creation of portolans, which described the ports, connections and distances between them and the easiest access routes. The most renowned masters of navigational charts were Petrus Vesconte from Genoa, Angelino de Delorto and Guillelmo Soleri from Majorca, among others. Hence map-makers' workshops in Venice, Genoa, Pisa, Amalfi and Majorca established the founda-

tions of modern European cartography.

Abraham Ortelius was among the first Europeans to create historical maps, including one of the Black Sea. Conceptions of the Black Sea Coast in the 16th–18th c. appeared in the works of many European mapmakers, cartographers' guilds and workshops. Famous map-makers notable for their achievements include Nicolas and Guillaume Sanson, Guillaume de l'Isle, Johann Baptist Homann, Isaak Tirion, and Johann van der Bruggen.

The maps and geographic descriptions presented in the exhibition show that throughout the ages there were economically and scientifically minded people – scientists, sailors, ecclesiastics, merchants and military men – who overcome all obstacles and prohibitions for the sake of collecting, analyzing and providing information and knowledge, oriented not to the human faith, but to the humanist mind.



# TABULA PEUTAGRIANA

The Tabula Peutingeriana is an illustrated itinerarium (road map) showing the cursus publicus, the road network in the Roman Empire. It is kept at the Austrian National Library in Vienna. The original map upon which it is based probably dates to the 4th or 5th century and was itself based on a map prepared by Agrippa during the reign of the emperor Augustus.

The Tabula Peutingeriana is the only known surviving map of the Roman cursus publicus; it was made by a monk in Colmar in the 13th century. It is a parchment scroll, 0.34 m high and 6.75 m long, assembled from eleven sections, a medieval reproduction of the original scroll. It is a very schematic map: the land masses are distorted, especially in the east-west direction. The map shows many Roman settlements, the roads connecting them, rivers, mountains, forests and seas. The distances between the settlements are also given. In total no less than 555 cities and 3500 other place names are shown. The three most important cities of the Roman

Empire, Rome, Constantinople and Antioch, are represented with special iconic decoration.

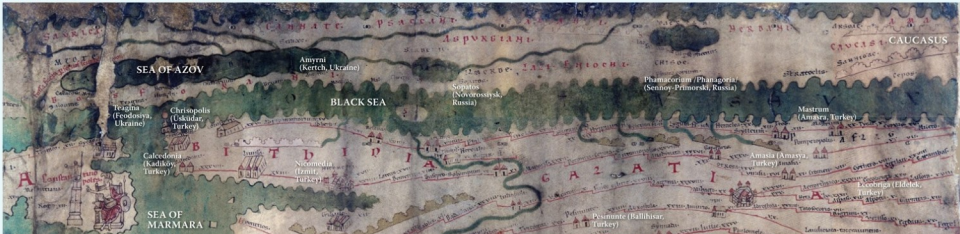
The map was discovered in a library in Worms by Conrad Celtes, who was unable to publish his find before his death and bequeathed the map in 1508 to Konrad Peutinger, a German 15–16th-century humanist and antiquarian, after whom it is named. It is conserved at the Österreichische Nationalbibliothek, Hofburg, Vienna. The Peutinger family kept the map until 1714, when it was sold. It bounced between royal and elite families until it was purchased by Prince Eugene of Savoy for 100 ducats; upon his death in 1737, it was purchased for the Habsburg Imperial Court Library (Hofbibliothek) in Vienna, where it remains.

In 2007, the map was placed on the UNESCO Memory of the World Register, and in recognition of this, it was displayed to the public for a single day on November 26, 2007. Because of its fragile condition, it is not ordinarily on display.

Part of the TABULA PEUTINGERIANA, section 7: Dacia, Thrace - West coast of the Black Sea



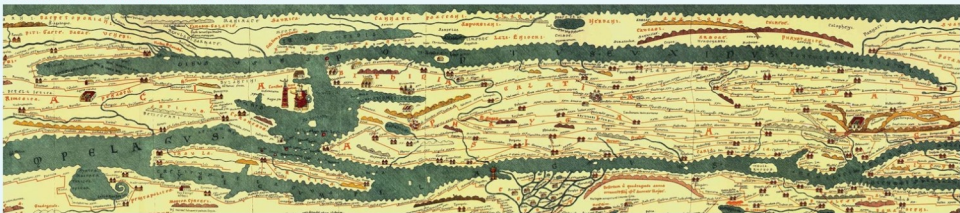
Part of the TABULA PEUTINGERIANA, section 8: Pontus, Bithynia, Asia, Galatia - parts of Ukraine, Russia, Turkey



Part of the TABULA PEUTINGERIANA, section 9: Pontus, Colchis - Parts of Russia, Georgia, Turkey



Sections 7, 8 and 9 of the TABULA PEUTINGERIANA - reconstruction



# PORTOLAN CHARTS

Portolan or portulan charts are navigational maps based on compass directions and estimated distances observed by the pilots at sea. They were first made in the 13th century in Italy, and later in Spain and Portugal, with later 15th and 16th century charts noted for their cartographic accuracy. With the advent of widespread competition among seagoing nations during the Age of Discovery, Portugal and Spain considered such maps to be state secrets. The English and Dutch relative newcomers found the description of Atlantic and Indian coastlines extremely valuable for their raiding, and later trading, ships. The word portolan comes from the Italian adjective portolano, meaning "related to ports or harbors", or "a collection of sailing directions".

Portolan maps all share the characteristic rhumbline networks, which emanate

out from compass roses located at various points on the map. These better called "windrose lines" are generated by observation and the compass, and designate lines of bearing. These charts, actually rough maps, were based on accounts by medieval Europeans who sailed the Mediterranean and Black Sea coasts.

The oldest extant portolan is the Carta Pisana, dating from approximately 1296 and the oldest preserved Majorcan Portolan chart is the one made by Angelino Dulcert who produced a portolan in 1339. This led towards two families of Portolan charts: the ones that are purely nautical and those that are nautical and geographical. The Catalan portolan charts are of this second type, being usually made in Majorca.

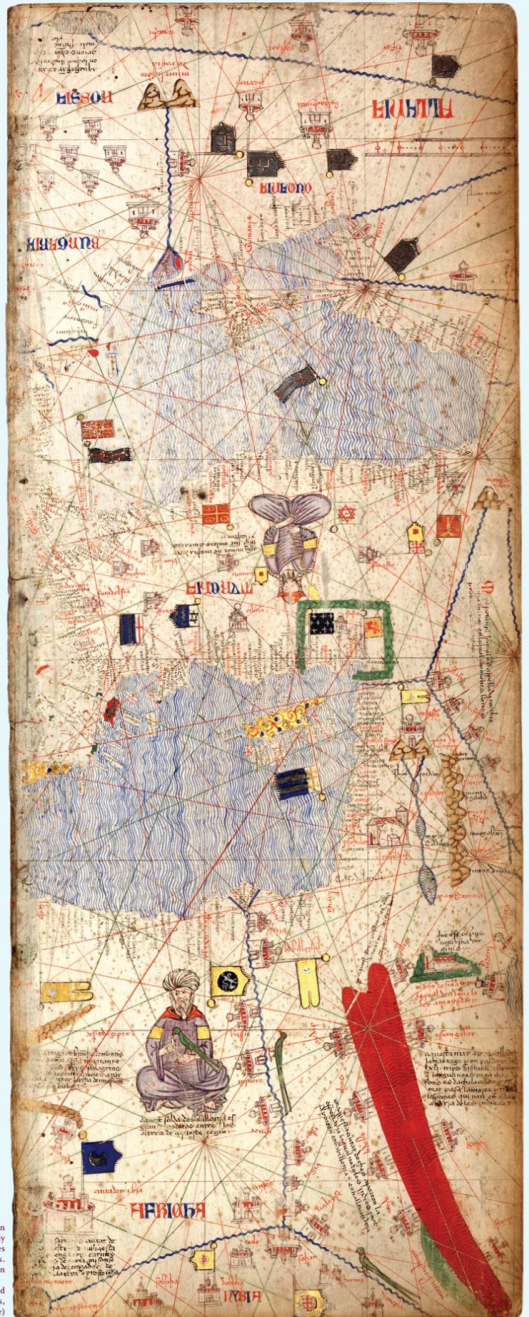
Abraham Cresques, *Catalan atlas*, Folio 9, 1375



Carte Pisane  
c. (1258 - 1291)  
1540 mm x 922 mm  
Paris, Bibliothèque Nationale



Vesconte Maggiolo, *Portolan* (1541)



The *Catalan World Atlas* was produced by the Majorcan cartographic school and is attributed to Cresques Abraham. It has been in the royal library of France (now the Bibliothèque nationale de France) since the time of Charles V. The *Catalan Atlas* originally consisted of 6 vellum leaves folded down the middle painted in various colors (including gold and silver). The first two leaves contain texts in Catalan language covering cosmography, astronomy, and astrology. These texts are accompanied by illustrations. The texts and illustration emphasize the Earth's spherical shape and the state of the known world. They also provide information to sailors on tides and how to tell time at night. Unlike many other nautical charts, the *Catalan Atlas* is read with the north at the bottom. As a result of this the maps are oriented from left to right, from the Far East to the Atlantic. The first two leaves, forming the oriental portion of the *Catalan Atlas*, illustrate numerous religious references as well as a synthesis of medieval *magnum mundi* (Jerusalem located close to the centre) and the travel literature of the time, notably Marco Polo's *Book of Marvels* and the *Travels and Voyage of Sir John Mandeville*.

# EBSTORF MAP

The Ebstorf Map from the 13th century is the largest medieval map hitherto known of. Although the original was lost during WW2 it is well known from a number of photos, lithographs and facsimiles. In 1951 -1953 three reproductions were created, one of which may be seen at the convent at Ebstorf, where it was found in 1830.

The original consisted of 30 single pieces of goat-skin, sewn together, measuring 3.5 x 3.5 metres, and rolled up. Although the map is part of the genre called "Mappa Mundi" (idealised representations of the known world) it differs by its sheer size and its compactness of information.

According to the historian Gudrun Pischke it holds 2345 entries – 1500 pieces of texts, 845 pictures showing buildings (500), rivers lakes, seas and other waterways, islands (60), people (45) and animals (60). To this should be added numerous religious motifs.

Like all Mappae Mundi the map is oriented towards the east. The earth itself

forms the body of Christ, as witnessed by his feet dangling below. In the centre we find a gold-framed presentation of the resurrection, located smack in the middle of Jerusalem.

The map is best seen as a visual encyclopaedia of the knowledge of the world ca. 1250. It covers theology, geography, biology, secular history and the history of salvation as well as myths and bestiaries.

As with other mappae mundi it is intensively debated what they were for. Were the maps meant to be objects of devotion, decoration, meditation, education? Neither is there in any sense agreement as to who might have made the map, although some believe the person responsible for the map was Gervase of Ebstorf, prior at Ebstorf from 1222 – 1234.

Finally scientific analysis of eight different hands of scribes represented in the map and identified as active in the archive at Ebstorf has enabled a dating of the map to ca. 1300.



Noah's Ark

Jerusalem



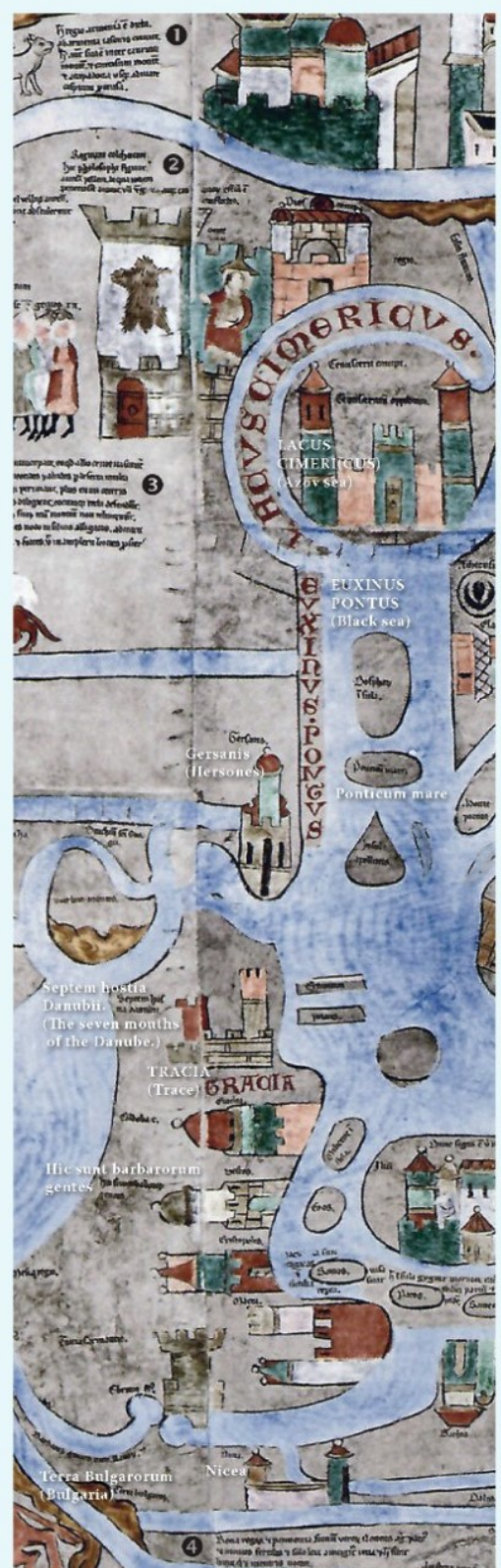
### Transcription and translation:

1 *Hec autem sita est inter Taurum montem et Caucasum montem, et a Cappadocia usque ad mare Caspium protensa.*  
(Here is the Armenia region, named after Armenia, a companion of Jason. The area lies between the Taurus and the Caucasus and extending from Cappadocia to the Caspian Sea.)

2 *Regnum Colchorum. Hic philosophi fingunt auream pellem, de qua Jasonem penetrasse dicunt, unde etiam Grecorum et Troianorum effecta est conflictio.*  
(The realm of Colchians. Here the philosopher locate the Golden Fleece, for whose Jason said to have come into the country, and from which the war between Greeks and Trojans arose.)

3 *Hanc regionem que Albania dicitur, XXVII gentes inhabitant, a candore populi nuncupate, eo quod albo crine nascuntur. Hec ab oriente sub mari Caspio surgens, per ora in oceanum septentrionalis usque ad Meotides paludes per deserta multa ostenditur. Ibius terre canes tam ingentes sunt tartarique feritatis, ut tauros loonesque perimant.*  
(This landscape that is Albania, inhabiting 26 tribes, which are named after their dazzling white color and white-haired come to the world. The area begins in the east on the Caspian Sea and extends along the coast of northern ocean over many desert areas up to the Meotidischen swamps. The dogs here are so huge and so wild that they can kill bulls and lions.)

4 *Retia et Pannonia fortium vivorum. Noricus ager parvus et minus fertilis et solo leta. Coniungitur Retia, et hic sunt Huni qui et Meravis vocati.*  
(Rhaetia and Pannonia, the country's strongmen. The Norische farmland is scarce and not very fertile. Rhaetian borders, and here the Huni live also named Merari (mistakenly for Avari?))



Ebstorf Map



# PIETRO VESCONTE



Pietro Vesconte, *Portrait of a cartographer*, assumed to be Pietro Vesconte himself, from the 1318 Vesconte atlas. The image is on the top left corner of the fourth sheet (chart of central Mediterranean) of the 7-sheet Vesconte atlas held (Port. 28) by Museo Correr in Venice, Italy.

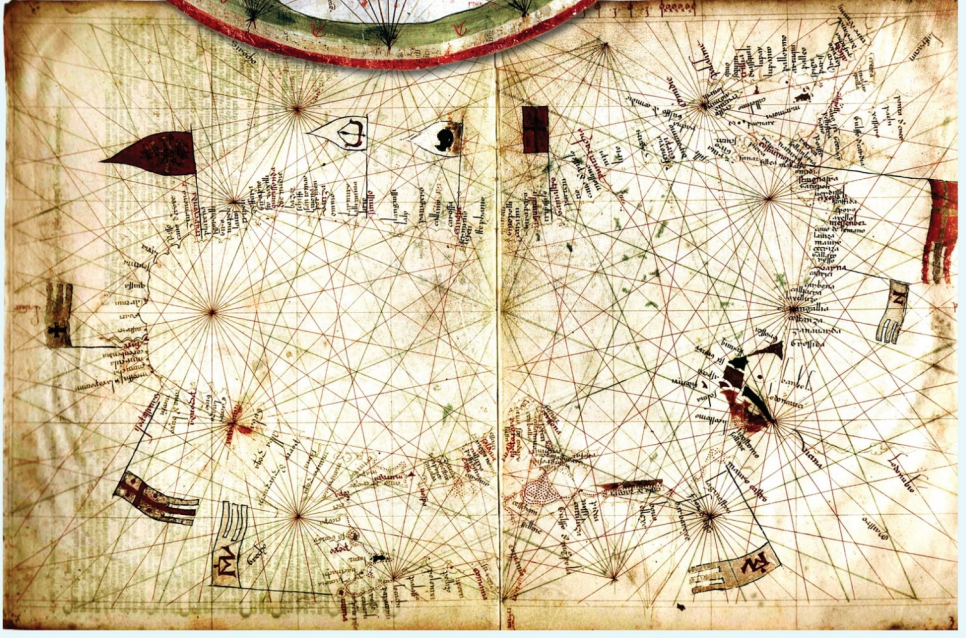


Pietro Vesconte's world map created circa 1311, generally considered to be one of the earliest surviving examples of a modern map of the world. Vesconte's map, in its earliest form, survives in a 14th century manuscript work by Marino Sanudo (left), which was reproduced for the first time in print (detail, top) in Johann Bongars' *Orientalium expeditionum historiae. Gesiae. Dni per Francos, sive Orientalium expeditionum, et regni Francorum Hierosolimitanae historia* (Hanau, 1611). While not as broadly disseminated as the maps of Claudius Ptolemy, the Vesconte/Sanudo map shown above is perhaps the single most important surviving cartographic artifact of the early 14th century, providing great insight into the modern concept of the world, over 150 years prior to the first printed maps.



Italian geographer Pietro Vesconte was a pioneer of the field of the portolan chart. His nautical charts are among the earliest to map the Mediterranean and Black Sea regions accurately. He also produced progressively more accurate depictions of the coastlines of northern Europe. In his world map of 1321 he brought his experience as a maker of portolans to bear; the map introduced a previously unheard of accuracy to the mappa mundi genre. The world map, as well as a map of the Holy Land and plan of Acre and Jerusalem were made for inclusion in Marino Sanuto's *Liber secretorum fidelium crucis*.

Pietro Vesconte, *Black sea map*, 1321

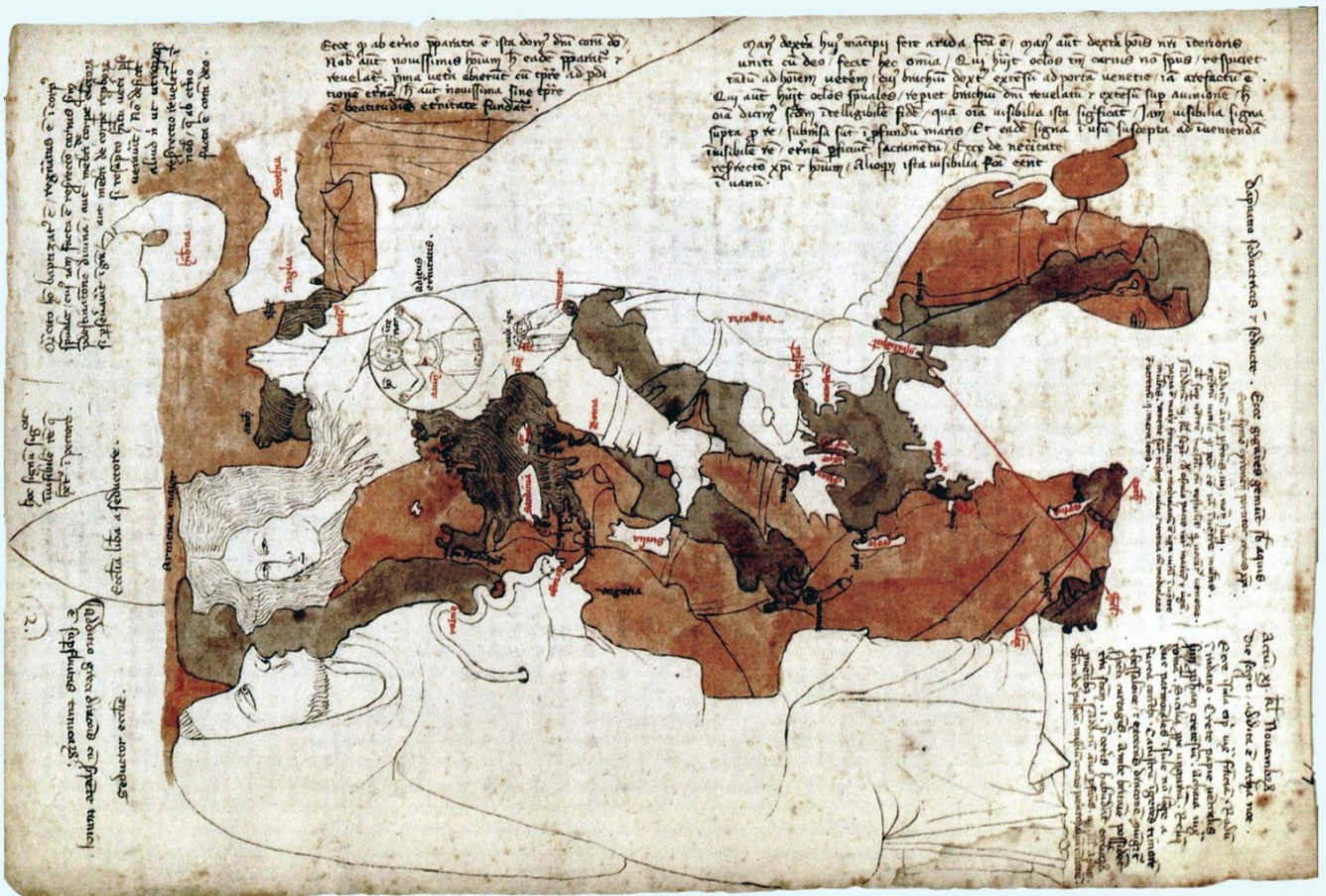
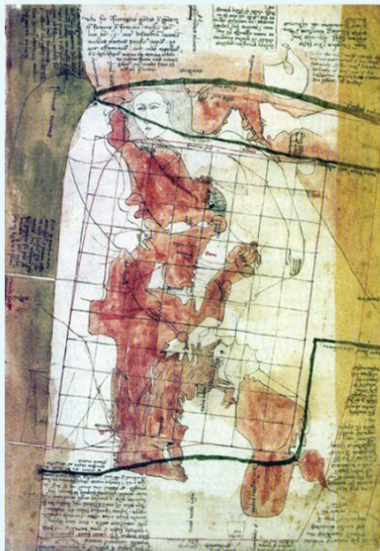


# OPINICUS DE CANISTRIS (XIV c.)

Opicinus de Canistris (1296 to ca. 1350), a Pavian who worked at the papal court in Avignon, drew a series of imaginative maps, while acknowledging in a text written between 1334 and 1338 his use of nautical charts. Canistris' maps are fanciful anthropomorphic perspectives on geography, cartography and religion, a style that was to become a popular form of social and political commentary in the 17th - 19th centuries.

On the 31st of March, 1334, Opicinus fell sick. In his day-book he details how his body slowly became paralyzed; he temporarily lost his ability to speak, and much of his memory. But during this illness, Opicinus had a divine vision: "my interior eyes were opened to discern the images of the earth and the sea." These "images" were visions of continents and oceans transformed into human figures. As Opicinus recovered from his illness, he regained the use of his right hand, and he took this healing to be a sign from God — he writes that his arm and hand would only move when he used them to make drawings of his visions. The representation and interpretation of this divine image of the earth would occupy much of the rest of his life. In over eighty surviving drawings, now kept in the Vatican Library, he experimented with how he could uncover the meaning that he was sure God had planted in the vision he saw.

His message is difficult to decipher and witness to the encyclopaedic culture of its author. Opicinus used all his knowledge to construct a cosmic identity. Its colour anthropomorphic maps of the Mediterranean area, precise and curiously organised, illustrate "good" and "bad" characters and animals on which he projects himself and his enemies. The use of symbols, his taste for dissimulating and manipulating (words, numbers, space), and his attraction to the obscene and scatological are omnipresent and relate strongly to similar themes found broadly in medieval culture.



# FRA MAURO WORLD MAP 1459

Fra Mauro (died 1464) was an Italian cartographer who lived in the Republic of Venice. He created the most detailed and accurate map of the world up until that time, the Fra Mauro map. Mauro was a monk of the Camaldolese Monastery of St. Michael, located on the island of Murano in the Venetian Lagoon.

Fra Mauro was born before or around the year 1400. In his youth, Mauro had traveled extensively as a merchant and a soldier. By 1450 he composed a great mappa mundi - a world map - with surprising accuracy, including extensive written comments reflecting the geographic knowledge of his time.

Fra Mauro created the map under a commission by King Afonso V of Portugal. Andrea Bianco, a sailor-cartographer collaborated with Fra Mauro in creating the map, as payments made to him between 1448 and 1459 testify. The map was completed on 24 April 1459, and sent to Portugal, but that copy didn't survive. Along with the map was a letter from the Doge of Venice. It was intended for Prince Henry the Navigator, Afonso V's uncle. It encouraged the prince to continue funding exploratory journeys. Fra Mauro died the following year, while he was

making a copy of the map for the Signoria of Venice. The copy was completed by Andrea Bianco. A commemorative medal of the period struck in honor of his cartographic work describes Fra Mauro as "chomographus incomparabilis".

The map is a circular planisphere drawn on parchment and set in a wooden frame that measures over two by two meters. It includes Asia, the Indian Ocean, Africa, Europe and the Atlantic. It is oriented with south at the top.

The Fra Mauro world map is a major cartographical work. It took several years to complete and was very expensive to produce. The map contains hundreds of detailed illustrations and more than 3000 descriptive texts. It was the most detailed and accurate representation of the world that had been produced up until that time. It marks the end of Bible-based geography in Europe and the beginning of embracing a more scientific way of making maps, placing accuracy ahead of religious or traditional beliefs.

The map is usually on display in the museum Museo Correr in Venice in Italy.



Bust of Fra Mauro Camaldolese, by Giuseppe Soranzo of 1881. The bust is part of the Panteon Veneto, kept in Palazzo Loredan in Campo Santo Stefano in Venice.

Fra Mauro, Mappa Mundi, 1459



Image made by NASA - compares the Fra Mauro map to a modern satellite image. NASA describes the comparison as "stunning" and notes how accurate parts of the map are considering the methods that were available at the time.

Black Sea (Pontus Eusinus) on the Fra Mauro map



Fra Mauro, Mappa Mundi, 1459

# MARTIN WALDSEEMÜLLER - NAMING OF A NEW WORLD

Martin Waldseemüller (Latinized Martinus Ilacomylus, Ilacomilus or Hylacomylus; 11 September 1470 – 16 March 1520) was a German cartographer. He and Matthias Ringmann are credited with the first recorded usage of the word America, on the 1507 map *Universalis Cosmographia* in honour of the Florentine explorer Amerigo Vespucci.

On 25 April 1507, as a member of the *Gymnasium Vosagense* at Saint Diey, he produced a globular world map and a large world wall map using the information from Columbus and Vespucci's travels (*Universalis Cosmographia*), both bearing the first use of the name "America". The globular and wall maps were accompanied by a book *Cosmographiae Introductio*, an introduction to cosmography.

In the Introduction, written by Matthias Ringmann, it is explained why the name America was proposed for the then New World, or the Fourth Part of the World: *But now these parts have been more widely explored, and also another fourth part has been discovered by Americus Vesputius (as will be heard in the following), and I do not see why anyone should justifiably forbid it to be called Amerige, as if "Americus' Land", or America, from its discoverer Americus, a man of perceptive character; since both Europa and Asia have received their names from women.*

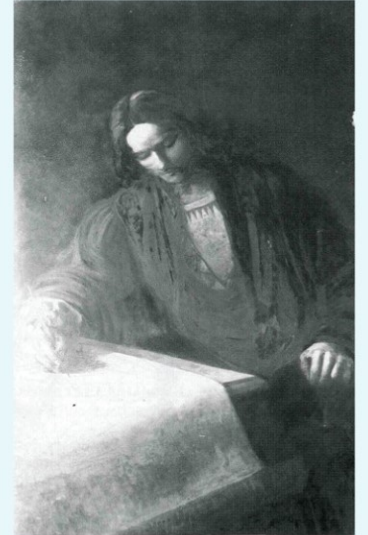
In 1513, Waldseemüller appears to have had second thoughts about the name, probably due to contemporary protests about Vespucci's role in the discovery and naming of America, or just carefully waiting for the official discovery of the whole northwestern coast of what is now called North America, as separated from East Asia. In his reworking of the Ptolemy atlas, the continent is labelled simply *Terra Incognita* (unknown land). Despite the revision, 1,000 copies of the world maps had since been distributed, and the original suggestion took hold. While North America was still called Indies in documents for some time, it was eventually called America as well.

The wall map was lost for a long time, but a copy was found in Germany in 1901. It is still the only copy known to survive, and it was purchased by the Library of Congress in May 2003. Five copies of the globular map survive in the form of "gores" printed maps that were intended to be cut out and pasted onto a wooden globe. Only one of these lies in the Americas today, residing at the James Ford Bell Library, University of Minnesota, three copies are in Germany (Bayerische Staatsbibliothek, LMU Munich, Stadtbibliothek Offenburg), one copy is in London, UK, in private hands.

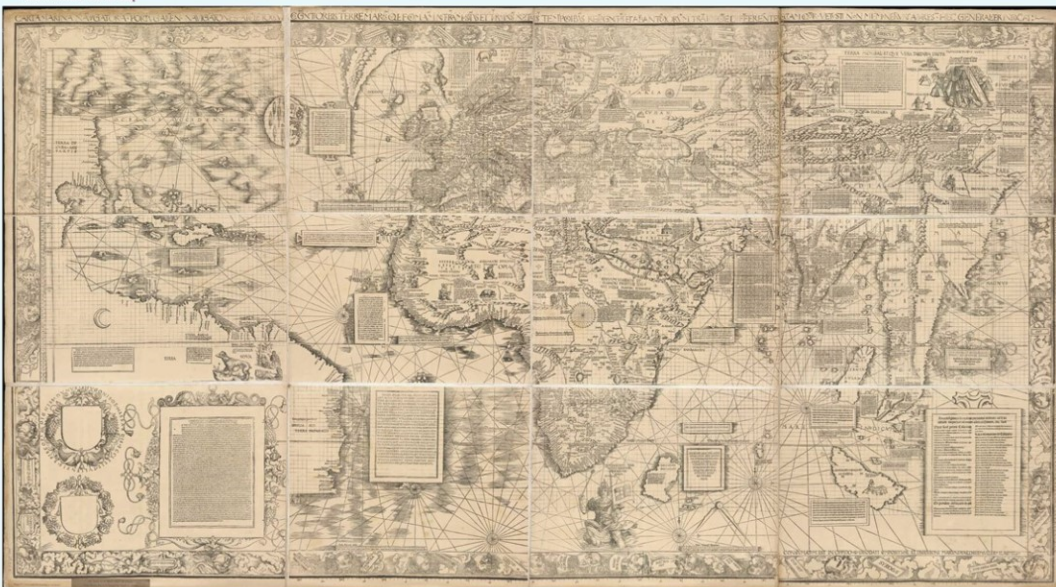


Waldseemüller's 1513 map

Waldseemüller's 1507 map



Cartographer Martin Waldseemüller in a 19th century phantasy portrait formerly in the Theatre of Saint-Dié-des-Vosges; lost today. Author: Gaston Save (1844-1901)



Fragment from Waldseemüller's 1507 map with the new continent name



Fragment from Waldseemüller's 1507 map with Black Sea, Caspian Sea and Persian Gulf



Fragment from Waldseemüller's 1507 map with Amerigo Vespucci portrait

## PIRI REIS (1465–1553)

Ahmed Muhiddin Piri (1465–1553), better known as **Piri Reis** (Turkish: Piri Reis or Hacı Ahmed Muhiddin Piri Bey), was an Ottoman admiral, geographer, and cartographer.

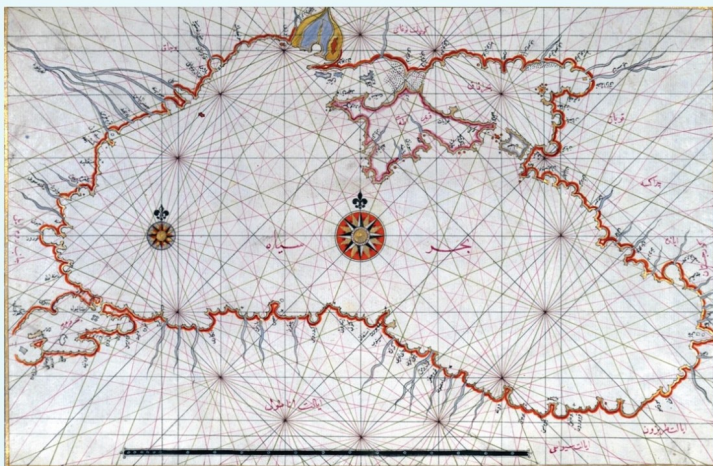
He is primarily known today for his maps and charts collected in his *Kitab-i Bahriye* (Book of Navigation), a book that contains detailed information on navigation, as well as very accurate charts (for their time) describing the important ports and cities of the Mediterranean Sea. He gained fame as a cartographer when a small part of his first world map (prepared in 1513) was discovered in 1929 at the Topkapı Palace in Istanbul. His world map is the oldest known Turkish atlas showing the New World, and one of the oldest maps of America still in existence

anywhere (the oldest known map of America that is still in existence is the map drawn by Juan de la Cosa in 1500). **Piri Reis'** map is centered on the Sahara at the latitude of the Tropic of Cancer.

In 1528, **Piri Reis** drew a second world map, of which a small fragment (showing Greenland and North America from Labrador and Newfoundland in the north to Florida, Cuba, Hispaniola, Jamaica and parts of Central America in the south) still survives. According to his imprinting text, he had drawn his maps using about 20 foreign charts and mappae mundi (Arab, Spanish, Portuguese, Chinese, Indian and Greek) including one by Christopher Columbus. He was executed in 1553.

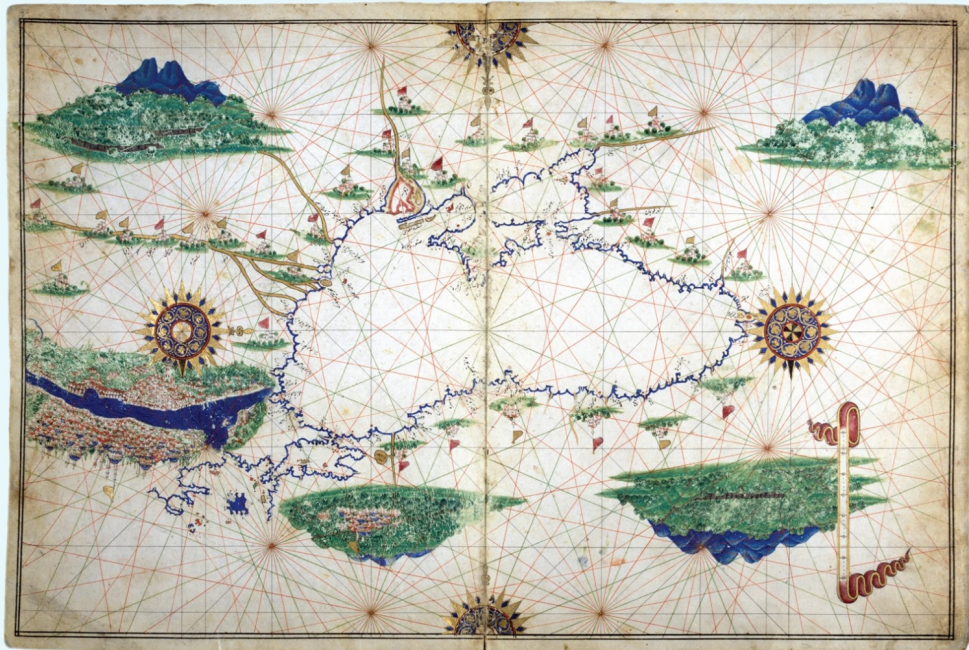


Statue of Piri Reis



Originally composed in 1525 and dedicated to Sultan Süleyman I ("The Magnificent"), this great work by Piri Reis on navigation was later revised and expanded. Walters manuscript W.658, made mostly in the late 17th century, is based on the later expanded version and has some 240 exquisitely executed maps and portolan charts. They include a world map (fol. 41a) with the outline of the Americas, as well as maps of coastlines (bays, capes, peninsulas), islands, mountains, and cities of the Mediterranean basin and the Black Sea. The work starts with the description of the coastline of Anatolia and the islands of the Aegean Sea, the Peloponnese peninsula, and the eastern and western coasts of the Adriatic Sea. It then proceeds to describe the western shores of Italy, southern France, Spain, North Africa, Palestine, Israel, Lebanon, Syria, western Anatolia, various islands north of Crete, the Sea of Marmara, Bosphorus, and the Black Sea. It ends with a map of the shores of the Caspian Sea (fol. 37a).

Anonymous, Black sea map, XVI century  
Walters Art Museum



# FERNÃO VAZ DOURADO (1520 – 1580)

## DIOGO HOMEM (1521 – 1576)

Fernão Vaz Dourado (c. 1520 in Goa - Portuguese India – c. 1580) was a Portuguese cartographer of the sixteenth century, belonging to the third period of the old Portuguese nautical cartography, which is characterised by the abandonment of Ptolemaic influence in the representation of the Orient and introduction of better accuracy in the depiction of lands and continents. Little is known about this historical figure.

His works are of an extraordinary quality and beauty. Most of his manuscript charts are of relatively large scale and are included in nautical atlases.

His chart of the northwestern coast of Africa, displayed above is executed using the so-called "plain chart model", where observed latitudes and magnetic directions were plotted directly into the plane, with a constant scale, as if the Earth were flat. Until the adoption of the Mercator projection charting method, this was the most advanced charting method in Europe.

Diogo Homem (1521–1576) was a Portuguese cartographer, son of Lopo Homem, the official geographer to the King of Portugal and member of a family of cartographers.

Due to a crime of murder, in which he was connivent, he was forced to exile from Portugal, first in England, and then in Venice. It was there that he produced numerous manuscript atlases and charts, many of them of the Mediterranean.

The work of Diogo Homem is of an exceptional graphical quality and beauty, being kept in Italy, Austria, United Kingdom, France, the USA and Portugal.

The map here presented outlines the coasts of the Black and Marmora Seas and of the Sea of Azov. In the middle of the Black Sea is put the obligatory rose of the winds with 32 wind directions.



Diogo Homem - Map of the Black sea (circa 1559), Drawing, coloured, 58,6 x 44 cm, National Library of France – Paris. The places marked in red are: scutari (Üsküdar), pen de rachia (Eregli), samastro (Amasra), castele (Cide), sinopi (Hamsi koyu), simiso (Samsun), vatica (Fatsa), lauona (Çam Br.), chirisonda (Giresun Adası), trapazonda (Trabzon), lauati (Batumi), faxio (Rioni R.), saustopoli (Sukhumi), peconda (Pitsunda), mauro laco (Gelendzhik Bay), matriga (Taman), copa (Temryuk), lopexo (Primorsko-Akhtarsk), f. tanais (River Don), cabardy (Taganrog), cumania (Kyrylivka), pidea (Zaliznyi Port), licostoma (Vilkove), zanauarda (Midia Cape), chaliacra (Kaliakra Cape), verna (Varna), sixopoli (Sozopol), g. de stagnara (Ignea), constantinopoli (Istanbul), gazaria (Crimca), uospro (Kerch), cafa (Feodosiya), soldaia (Sudak), zembano (Balaklava)

Fernão Vaz Dourado (c. 1520 – c. 1580), Nautical chart, part of a nautical atlas drawn in 1570 and now kept in the Huntington Library, USA. The places marked in red are: carpi (Kerpe), pütanasi (Eregli), sanasto (Amasra), castellas (Cide), sinopi (Sinop), planitemga (Balliça), iadida (Fatsa), ileona (Çam Br.), serizoda (Giresun Adası), trapazonda (Trabzon), ilipotimo (Khobi R.), sanistopoli (Sukhumi), c. giro (Bzyb), alazeqia (Lazarevskoye), iloelho (Taman), lunai (Azov), lanarde (Taganrog), palonizi (Bilosar'ska Beak), cominia (Kyrylivka), pidera (Kinburn'ska Beak), grote de come (Berezans'kyi Firth), moncristo (Bilhorod-Dnistrovskiy), listima (Kiliya), s. lordi (Bratul Sulina), raxaira (Kaliakra Cape), garia (Varna), mesember (Neseshär), estachunine (Ignea), constantinopla (Istanbul), graisar (Crimca), temero (Balaklava)



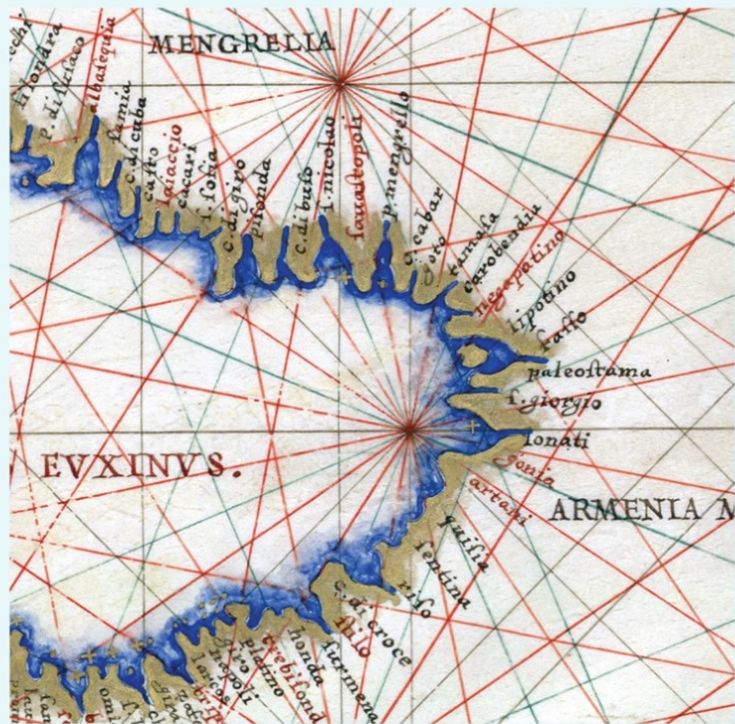
# FRANCESCO GHISOLFI BLACK SEA MAP 1565

Marco Francesco Ghisolfi, a notable mid-sixteenth century Genoese master, maker of globes produced a group of atlases of sea maps. All the 'maps' have narrow borders of arabesque design, strikingly similar and in some cases identical. The 'Ghisolfi' atlases were never intended for practical use by seamen. They are derived from nautical cartography and may well be said to be the end of the line stretching back to the luxurious portolan atlases made for princes and monarchs of an earlier period. The atlases contains a declination table; a zodiac; nine portolan-style charts (with considerable non-maritime detail on the land; Pacific Ocean extending to the Atlantic coast of North America, the West Indies and the Strait of Magellan; the Atlantic Ocean eastwards to the Red Sea; Africa and the Indian Ocean; Europe (with an antiquated British Isles in which Scotland is separated from England and Wales); Spain and N. Africa; Western Mediterra-

nean; Italy and the eastern Adriatic coast; Eastern Mediterranean; Black Sea. There are also three 'world' delineations — a planisphere on the oval Bordone projection, surrounded by 12 beautifully illuminated windheads; a world map; and a set of globe gores with pictures of the several Ptolemaic elements and the four elements; on the upper and lower margins of the last, there are five pictures of the 12 signs of the zodiac. Fewer than ten Ghisolfi atlases are recorded today. The map of the Black sea presented here have been made for Francesco Medici and Joan of Austria (who married in 1565) because on the back cover there are the parted arms of the Medici and the Imperial House of Austria. The 'Ghisolfi' atlases were the last of the derivatives of 'genuine' portolan charts. Beautiful as the maps in them were, many of them were already archaic.

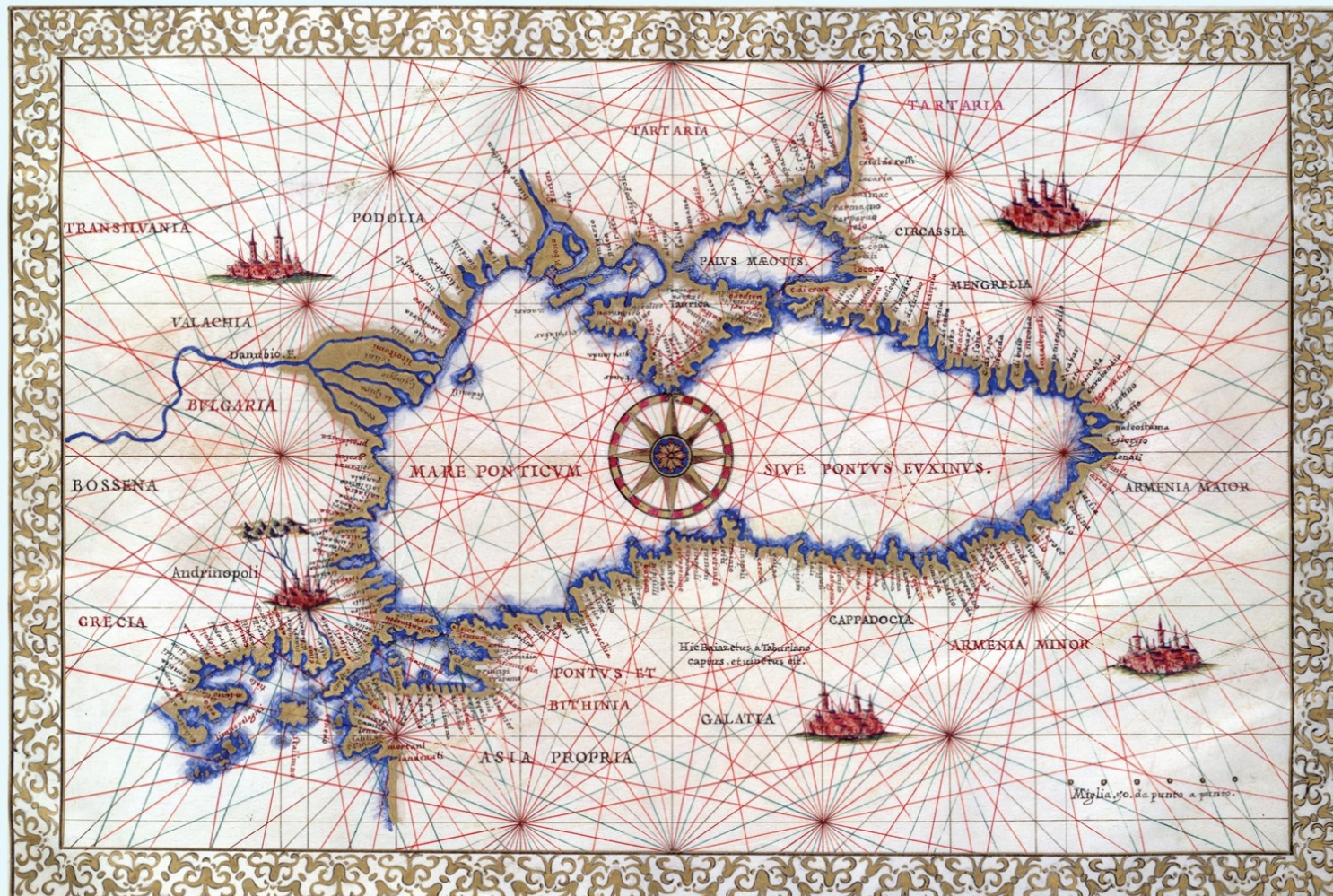


West coast of Black sea with marked in red: sisopoli (Sozopol), uiza (Obzor), uarna (Varna), caliacra (Kaliakra Cape), grosen (Sinoe Lake), proslauza (Kituk Island), licostozni (OI), moncastro (Mangalia)



East coast of Black sea with marked in red: albasequia (Lazarevskoe), laiaccio (Adler), saustopoli (Sukhumi), negapatino (Inguri River), gonia (Gonio), artani (Archavi), stilo (OI), trabezunda (Trabzon)

Francesco Ghisolfi (1533-1560), Italy, Black sea map from a Portolan atlas of sea-charts (USA, San Marino, Huntington Library, HM-28)

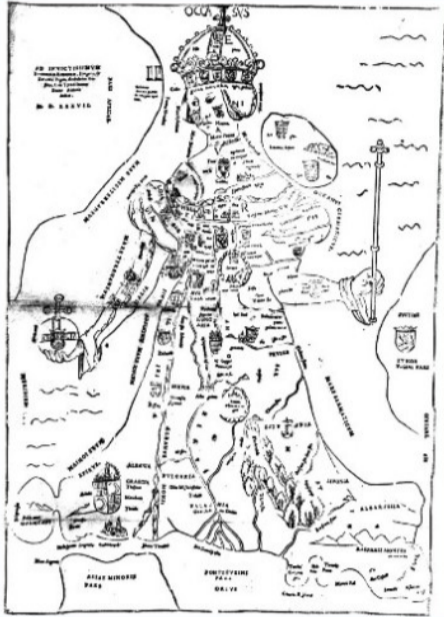


# EUROPA REGINA

A special group of 16th century anthropomorphic maps, adopting the antique myth of the Phoenician princess Europa, show Europe with the outlines of a female figure. The archetype version (Paris 1537) was created by **Johannes Putsch** (1516–1542), a Tyrolean poet and courtier. An accompanying poem illustrates the origins of this symbolism in contemporary politics. The map is a glorification of the House of Habsburg, with the expression of a general hope for peace. Many strange map details can be explained from historical constellations. Later reduced adoptions of the map in works by **Heinrich Bünting** (1587ff.) and **Sebas-**

**tian Münster** (1588ff.) have lost the political backgrounds in favour of a simple didactical purpose. Another copy was designed and engraved in 1587 by **Matthias Quad** (1557–1613) for the Cologne publisher **Johann Bussemacher**. It had its own roots in the contemporary wars in the Lower Rhinlands.

An apparently hand-drawn version of the Pursh's map had been presented to **Charles V** in Italy, probably together with the poem **Europa lamentans**. The only relevant date for this handing over is the late summer (22 August – 21 October) of the year 1535, during Charles' sojourn in Sicily. Immediately after that Johannes Putsch left Italy for France, where he arrived in November 1535 in Orléans.



The original 1537 Paris edition by Johannes Putsch (Tiroler Landesmuseum Ferdinandum, Innsbruck).

**Johann Putsch's poem Europa lamentans**  
Original Latin text with an English translation by Wulf Bodenstern, assisted by J-L Vellut

**EUROPA LAMENTANS**  
*Lamentatio Europae ad Carolum V. Caesarem et Ferdinandum Romanorum regem fratres.*

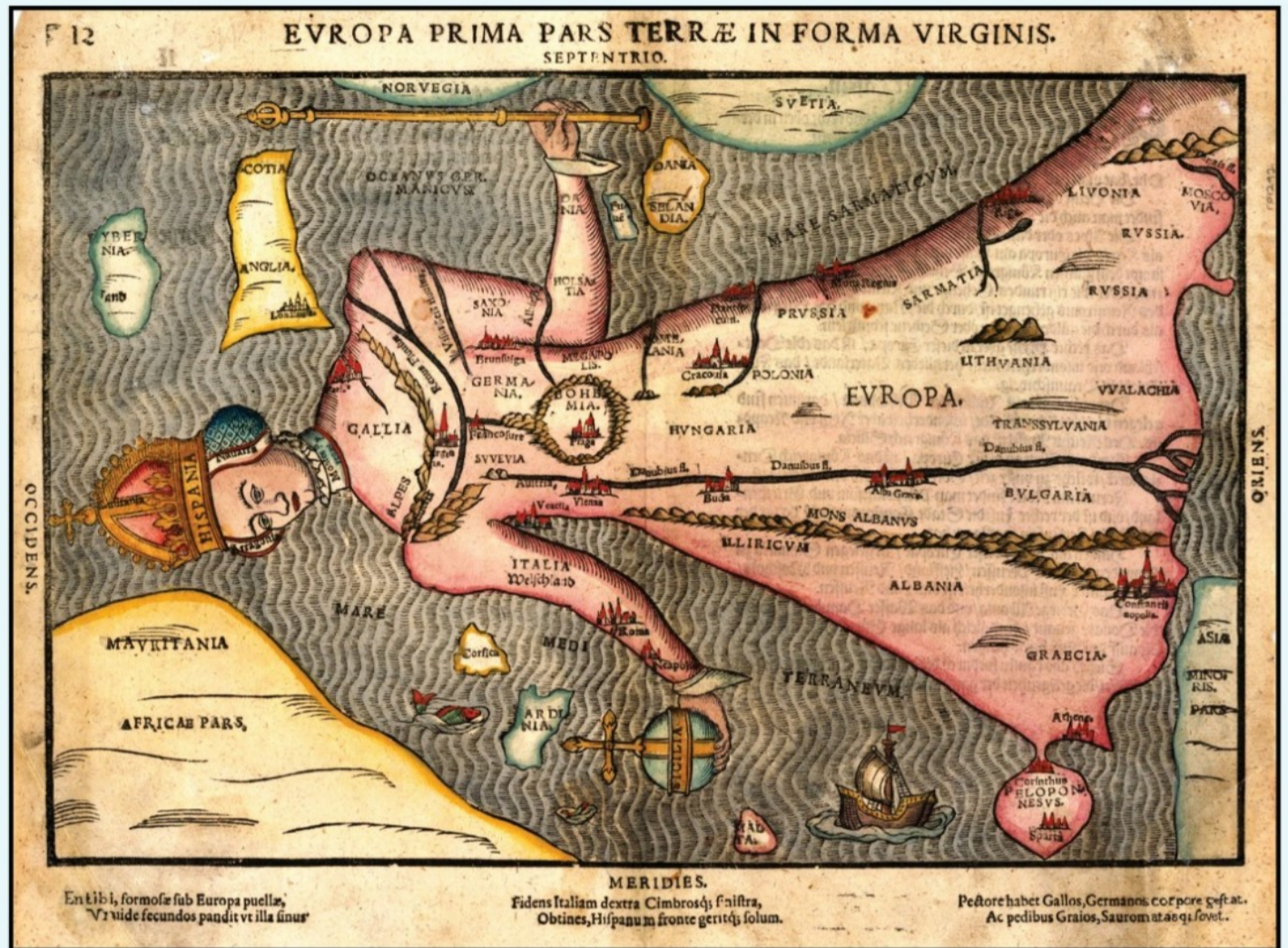
Quis tandem mihi finis erit, quae fata labores  
Ingentes casusque feros fortesque nefandas  
Attollent? Quae me tandem fortuna iacentem  
Restituet primae disicci sideris aurae?  
Tot sedes, tot bella tuli, tot proelia vidi  
Sanguinea Aeneaeque acies, certamina Iturni,  
Gottorum strages infestantesque catervas  
Gallorum Dacosque truces et Marte feroces  
Marcomanos, diramque creuenti Caesaris iram  
In patriam obstupui saevamque immitis Athilae  
Infelix timui rabiem, qui quae arma Suevo  
Induperatoris, triplicata vulnera Othonom  
Exhausi. Quot sola dedit mihi Roma tumultus,  
Nequitiam perpressa suam? Nec talia metam  
Attingunt, nunc multa acie, nunc ense coruscis.  
Inceptant alia insani certamina Reges

Evulsis inferre comis et rumpere pacem.  
Heu mihi, quot tantis nondum saturata periculis,  
In nova bella ruam? mea mi telluris opimae  
Fortilitas nocet atque externos allicit hostes.  
En caput oppressum truncibus relabascit ut Anglis,  
Dextera Romanos nimiumque experta tyrannos  
Respicit in terram fugiuntque e sanguine vires.  
Sola potens armis, medio Germania constans  
Corpore, firmatas posuit sibi fortius arces.  
Sum fidi custos thalami, sum maxima summae  
Servatrixque pudicitiae, sed semper iniquas

Poscor venturoque proci, modo Turca seclustus,  
Nunc Arabes, iam Tartar emit. Quid plurima dicam  
in steriles ventos? Vos, o clarissima mundi  
Sydera, vos gemini fratres, quibus aurea gaudent  
Saecula, tam diros belli compescite amores  
Armorumque minas. In vobis tota recumbit  
Spes, virtus et grata quies omnisque potestas  
Contra hostes. Agite aethereos sub Marte triumphos  
Accipite, ita sacri cececerunt omnia vates  
Promisitque Deus patribus. Vos ocyus ergo  
Semidet, vos Palladius describite ramos  
Arbore et aeternam sancito foedere pacem  
Reddite percussis populis requiemque colonis  
Donate et meriti vobis solvantur honores.

**EUROPE LAMENTING**  
*Europe's complaint to Emperor Charles V and his brother Ferdinand, King of the Romans*

What is going to be my destiny, which fate will put an end to the immense distress, the cruel vicissitudes and forces of providence? Which divine ordinance will finally restore a first glimmer of hope for our fallen planet? So many attacks and wars have I suffered, so many bloody fights did I see, the battles of Aeneas, the combats of Turnus, the massacres of the Goths, the hordes of the devastating Gauls, the murderous Daci, and the ferocious Marcomans. I was shocked by Caesar's wrath against his own native country. In my misfortune I dreaded the violent rages of furious Attila, having endured the armed engagements of the Swabians and the wounds inflicted thrice by the Ottomans. How much trouble did Rome not cause me, having to suffer her debauchery? But these matters have not come to an end yet, as now we are threatened by more actions on the battlefield, to be fought with the sword. Some senseless kings in their madness launch new wars and break the peace. Alas, have I not run enough risks to rush headlong into a new war? The fertility of my rich soil is a handicap as it attracts enemies from abroad. Thus my head sways, oppressed by the cruel English, and the right arm which has suffered exceedingly under the Roman tyrants drops down towards earth, while the veins lose their vigour. Faithful and mighty Germany alone, in the centre of my body, has energetically armed herself. I am the guardian of the nuptial chambers, the strongest protector of absolute chastity, but always am I being proposed to and even offered to be bought, be it by the treacherous Turk, the Arab or even the Tatar. What more shall I speak vainly into the wind? Oh you most brilliant stars of the world, the two brothers who are the joy of the golden age, do curb the infatuation with war and the threat of the arms. On you repose all hope, valour, gracious tranquillity and all force against the enemy. Receive the divine triumph obtained in the sign of Mars as foretold by the holy prophets and promised our fathers by God himself. So therefore go and pick olive branches from the tree, ye half gods, and give frightened humanity a lasting peace, and quietude to the inhabitants, so that the well-deserved honours may be bestowed upon you.



**Heinrich Bünting, Europa Prima Pars Terrae in Forma Virginis and Asia Secunda Pars Terrae in Forma Pegasis, Hanover / 1581 (ca).**  
**Heinrich Bünting** (ca. 1545 – 1606) was a German Protestant priest. Because of diverging theological opinions, he had to spend part of his life as a freelance author. His best known work is the *Itinerarium sacrae scripturae*. Das ist: Ein Reisebuch über die gantze heilige Schrift (first published Helmstedt; Jacobus Lucius, 1581), a geographical compendium to accompany the lecture of the Bible. The book had more than 60 editions until the middle of the 18th century. They are illustrated with different sets of maps. An interesting series appeared first in a 1587 Wittenberg edition. It includes – besides some "normal" maps of the world, Africa and the Bible Lands – three unusual items: a floromorphic world map in the form of a clover leaf (more correct: of a Marienblume, a symbol of Bünting's home Hannover); a zoomorphic map of Asia in the form of the mythical horse Pegasus; an anthropomorphic map of Europe in the form of a queen.



# SEBASTIAN MÜNSTER (1488 – 1552) - COSMOGRAPHIA



Portrait of Sebastian Münster by C. Amberg, c. 1552

**Sebastian Münster** (20 January 1488 – 26 May 1552) was a German cartographer. In 1505, he entered the Franciscan order. Four years later, he entered a monastery where he became a student of Konrad Pelikan for five years. Münster completed his studies at the Universität Tübingen in 1518. His graduate adviser was Johannes Stöfler. He released a *Mappa Europae* (map of Europe) in 1536. In 1540 he published a Latin edition of Ptolemy's *Geographia* with illustrations. The 1550 edition contains cities, portraits, and costumes. His *Cosmographia* of 1544 was the earliest German description of the world. His *Cosmographia* was one of the most successful and popular works of the 16th century. It passed through 24 editions in 100 years. This success was due to the fascinating woodcuts in addition to including the first to introduce separate maps for each of the four continents - America, Africa, Asia and Europe. It was most important in reviving geography in 16th century Europe. The last German edition was published in 1628, long after his death. He died at Basel of the plague in 1552. His tombstone described him as the Ezra and the Strabo of the Germans.

Sebastian Münster, *Geographia*, 1550, Basel, *Tabula Europae II*

Cover of the last edition of *Cosmographia*, 1628



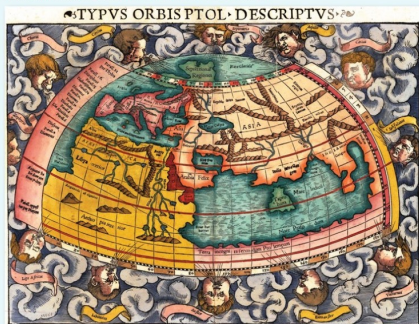
Sebastian Münster, *Cosmographia*, 1588, *Europa Regina*



Sebastian Münster, *Cosmographia*, 1552, Basel, East coast of the Pontus Euxini



Sebastian Münster, *Cosmographia*, 1552, Basel, West coast of the Pontus Euxini



Old 100 DM banknote, depicting Münster's effigy.



Sebastian Münster, *Typus Orbis Ptol Descriptus* (Ptolemy world map), 1552, Basel, *Historia Perit*. Decorative woodcut map probably cut by the Hans Holbein. It is surrounded by clouds and twelve named blowing wind heads and shows the predominant conception of the world geography prior to the discovery of the New World.

# ABRAHAM ORTELIUS (1527—1598)



Abraham Ortelius by Peter Paul Rubens

Abraham Ortelius, Flemish Abraham Ortels or Abraham Wortels (born April 14, 1527, Antwerp — died July 4, 1598, Antwerp), Flemish cartographer and dealer in maps, books, and antiquities, who published the first modern atlas, *Theatrum orbis terrarum* (1570; "Theatre of the World").

Trained as an engraver, Ortelius about 1554 set up his book and antiquary business. About 1560, under the influence of Gerardus Mercator, Ortelius became interested in mapmaking. In 1564 he published his first map, *Typus Orbis Terrarum*, an eight-leaved wall map of the world, on which he identified the Regio Patalis with Locach as a northward extension of the Terra Australis, reaching as far as New Guinea. Within a decade he compiled maps of the world on a heart-shaped projection (1564), of Egypt (1565), and of Asia (1567), as well as the first edition of the *Theatrum*, which contained 70 maps derived from 87 authorities and engraved in a uniform style. Enlarged and kept up to date in successive editions until late 1612, the *Theatrum* appears to have been the most popular atlas of its time. Ortelius was appointed geographer to Philip II of Spain (1575). A facsimile of the *Theatrum* was published in 1964.



ANTVERPIA, EXAT IN OFFICINA PLANTINIANA, M. DC. XII.

The decorative title page from the 1612 edition of Ortelius' *Theatrum Orbis Terrarum*, the first modern Atlas.



Abraham Ortelius, *Argonautica*. Illustrissimo Principi Carolo Comiti Arenbergio, Baroni Septimontii, Domino Miravartii, Equiti Aurei Velleris, etc., Hand-colored copper-engraved map, 342 x 490 mm, with inset of Thessaly and Bithynia. Depicts the mythical journey of Jason and the Argonauts, with a vignette of the fleece guarded by two bulls and a dragon. This map appeared in the *Paregion*, Ortelius's atlas of the ancient world.

Abraham Ortelius, *Typus Orbis Terrarum*, 1570



QYID EI POTEST VIDERI MAGVVM IN REBVS HVMANIS, CVI AETERNITAS OMNIS, TOTIVSQUE MVNDI NOTA SIT MAGNITVDO. CICERO:

# GERARDUS MERCATOR (1512 – 1594) - THE FIRST ATLAS

The age of discovery that began with Columbus, along with Magellan's conclusive demonstration that the Earth is round, created a demand for new maps and confronted cartographers with the problem of how to depict the spherical Earth on a flat surface. Of the various solutions, or 'projections', the best was that of Gerardus Mercator, which is still in use today. It was also Mercator who first used the term 'atlas' for a collection of maps.

He was born Gerhard Kremer at Rupelmonde in Flanders. His father was a cobbler, but the surname meant 'merchant' and Gerhard turned it into Latin as Mercator after his father and mother died when he was in his teens. A great-uncle who was a priest made sure that he got a good education and after graduating from the University of Louvain in 1532 he studied mathematics, geography and astronomy under Gemma Frisius, the Low Countries' leading figure in these fields. He learned the craft of engraving from a local expert called Gaspar Van der Heyden and the three men worked together in the making of maps, globes and astronomical instruments for wealthy patrons, including the Holy Roman Emperor Charles V.

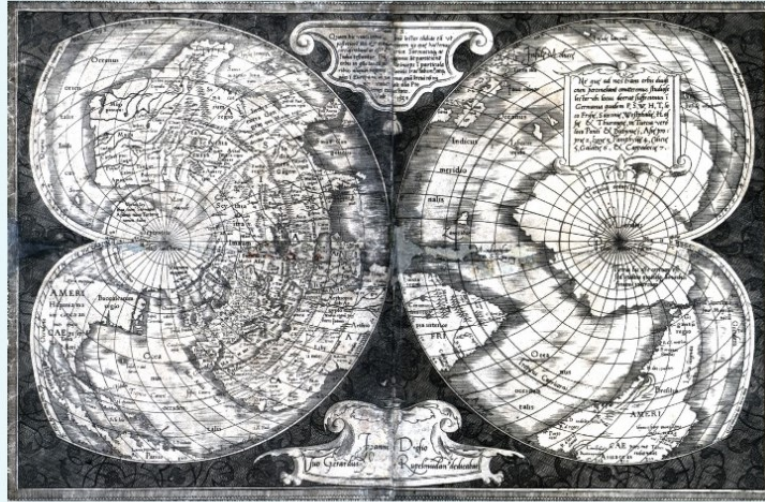
In 1538 Mercator produced a map of the world on a projection shaped like a pair of hearts. His inability to accept the Bible's account of the universe's creation got him into trouble with the Inquisition in 1544 and he spent some months in prison on suspicion of heresy before being released. John Dee, the English mathematician, astrologer and sage, spent time in Louvain from 1548 and he and Mercator became close friends.

In 1552 Mercator moved to Duisburg in the Duchy of Cleves in Germany. He set up a cartographic workshop there with his staff of engravers and perfected the Mercator projection, which he used in the map of the world he created in 1569. It employed straight lines spaced in a way that provided an accurate ratio of latitude and longitude at any point and proved a boon to sailors, though he never spent a day at sea himself. In the 1580s he began publishing his atlas, named after the giant holding the world on his shoulders in Greek mythology. Strokes in the early 1590s partly paralysed Mercator and left him almost blind. A final one carried him off in 1594 at the age of 82 and he was buried in the Salvatorkirche in Duisburg.

The frontispiece of the 1595 atlas (*Atlas sive Cosmographicae meditationes de fabrica mundi et fabricati figura*. Gerardo Mercatore Rupelmundano, Dvisbvr̄gi Clivorvm [1595])



Mercator's first map of the world on Double Cordiform Projection usually referred to as *Orbis Imago*, 1538. Only two copies of the map are extant. This is the first map to apply the name America to the North American continent as well as to South America and to differentiate North and South America as separate continents. In using the term 'America' in this way, Mercator shares responsibility with Martin Waldseemüller for naming the Western Hemisphere.



This portrait appears in the 1596 version of his Atlas. It was made in 1574, when Mercator was 62, by the engraver Frans Hogenberg who contributed many of the topographical images in *Civitates Orbis Terrarum*.



Mercator's most famous map: *Nova et Aucta Orbis Terrae Descriptio ad Usum Navigantium Emendate Accommodata*, (A new and more complete representation of the terrestrial globe properly adapted for use in navigation). The large size of what was a wall map meant that it did not find favour for use on board ship but, within a hundred years of its creation, the Mercator Projection became the standard for marine charts throughout the world and continues to be so used to the present day.



The Black sea and the cartouche from the map of Europe in the 1595 atlas (*Atlas sive Cosmographicae meditationes de fabrica mundi et fabricati figura*. Gerardo Mercatore Rupelmundano, Dvisbvr̄gi Clivorvm [1595])



Two maps with parts of Black sea from 1595 atlas (*Atlas sive Cosmographicae meditationes de fabrica mundi et fabricati figura*. Gerardo Mercatore Rupelmundano, Dvisbvr̄gi Clivorvm [1595])

# MAPS OF UKRAINE: Beauplan/Hondius(1648) & Homann (1720)

The name Ukraine was popularized in the west by **Guillaume La Vasseur de Beauplan's** *Description d'Ukraine*, first published in Rouen in 1651 (in an edition of 100 copies), with subsequent editions published in French (1661, 1662, 1663) Latin (1662), Dutch (1664), Spanish (1665 and 1672) and English (1680). The work described Ukraine as several provinces of the Kingdom of Poland lying between the borders of Muscovy and the frontiers of Transylvania.

**Beauplan**, a military engineer, had spent a significant period of time constructing fortresses in the region in the 1630s. In 1650, his map entitled *Delineatio Specialis et Accurata Ukrainae*, showed the palatinates of Kyiv, Bratslav, Podilia, Volhynia and part of Rus (Pokutia). Another of **Beauplan's** maps, published in 1648, entitled *Delineatio Generalis Camporum Desertorum vulgo Ukraina, Cum adjacentibus Provinciis*, shows all of the provinces of Poland, thereby recognizing the Russian and Polish language references to Ukraine as the "steppe frontier" and leading to the popularization of the name in Western Europe.

The region was later defined by the Zboriv Treaty of 1649. This treaty established the Cossack control of the regions and severed Poland's claims and created the region which would come to be known in the west as the Ukraine.



**Johann Baptist Homann** (1664 – 1724) – Homann acquired renown as a leading German cartographer, and in 1715 was appointed Imperial Geographer by Emperor Charles VI. In 1716 Homann published his masterpiece *Grosser Atlas ueber die ganze Welt* (Grand Atlas of all the World).

Johann Baptiste Homann: *Ukraina quae et Terra Cosacorum cum vicinis Wallachiae, Moldaviae, Minoris q. Tartariae. Provincis exhibitae*, Nuremberg / 1720



*Delineatio Generalis CAMPORUM DESERTORUM vulgo UKRAINA, Cum adjacentibus Provinciis*; Bono publico erecta per Guilihelmum le Vasseur de Beauplan S.R.M.tis Architectum militarem et Capitaneum;

Sculpt: Guilihelmus Hondius fecit 1648, Gdansk, copperplate, Atlas Van der Hagen, Koninklijke Bibliotheek, Den Haag  
The Ukraine was divided between Poland and Russia in the 17th century. In order to control this enormous area and to protect it against enemies the Polish king Ladislaus IV ordered the complete territory to be surveyed and mapped by the French military Guillaume le Vasseur de Beauplan (1595-1685). This survey plan of the Ukraine was composed in 1639 by De Beauplan, engraved and published by Willem Hondius in 1648 in Gdansk.



Schala  
Miliaria Oecrenica.

M. Polonica	12	12
M. Germanica	10	10
Loca Gallica	12	12
M. Italica	10	10
M. Hispanica	12	12
M. Africana	10	10

Le Graveur au Lecteur.  
 Cher Lecteur, J'ay gravé à la haste pour la nécessité du temps present  
 Cette Carte Generale d'Ocraine, la Revue des Costumes de la mort du  
 Roy m'est subordonné de Commencer par les Provinces et particulariter  
 de ce Pays, telle que l'Auteur me les a donné par ordre, et par  
 commandement de ce Seigneur de Commencer à dresser la Carte et par  
 suite par un point quadruple en grandeur de la Generale  
 avec les points qu'ilz se ne les ayx faitz avec toutes les  
 Instructions et Ravelles qui se trouvent en ce Cabinet  
 Receivz donc Cher Lecteur, ce mien petit labour, en  
 attendant que Dieu m'ayz faitz la Grace de finir  
 la grande, ou Je m'assure quezta Curiositez  
 sera amplement satisfaitte, à Dieu.

Delineatio Generalis  
 CAMPORUM DESERTORUM  
 vulgo  
**UKRAINA.**  
 Cum adjacentibus Provinciis  
 Bono publico erecta  
 per  
 Guilihelmum le Vasseur  
 de Beauplan  
 S.R.M.tis Architectum militarem  
 et Capitaneum.

Signorum vel Characterum declaratio

- . Infula.
- . Ruinae.
- . Loca Paludosa.
- . Fons.
- . Molendinum.
- B. = Transitus.
- . Pagi Tartarorum.
- H. = Hamaxabiorum.
- . Signum quo flumen acturipit.
- . Quercetum.

# HERMAN MOLL (1654 - 1732)

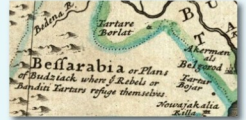
Herman Moll was an engraver, publisher, and cartographer, who had his book and map establishment in London. He was one of the most distinguished English cartographers of the late seventeenth and eighteenth centuries. Curiously enough, he provided fanciful maps for Daniel Defoe's Robinson Crusoe and Jonathan Swift's Gulliver's Travels.

The presented map was executed by the order of Peter I, the Russian Emperor, and dedicated to him. It appeared first in the atlas published in 1714.

The map includes an ornate dedication cartouche to Peter the Great, including a portrait of the Czar near the bottom of the cartouche as well as a number of interesting annotations. Moll has drawn the map from a map prepared by Cornelis Cruis, John Thesing and Captain Pambury, at the direction of the Czar, with improvement and corrections from Captain John Perry.

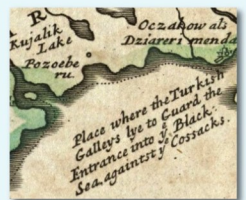
**Cornelis Cruis (Cruys)** (1655-1727) was Vice Admiral of the Imperial Russian Navy. Cruys introduction to the Russian Navy was as a direct result of Czar Peter the Great's Grand Embassy of 1697, which included a visit to Amsterdam to study shipbuilding and related arts. The Czar gained access to the shipyard of the Dutch East India Company, where he recruited Cornelis Cruys to join the Russian Imperial Navy as Vice Admiral, where he became the primary architect of the westernization of the Russian Navy.

A portrait of Hermann Moll by William Stakoley



The greatest Part of this Map relating to Russia is done by the Czar's order, according to the Actual Survey of Cornelius Cruis Vice Admirall, John Thesing, Captain Pambury &c. whereby it appears that all other Maps of this Country yet extant are very erroneous and defective, and the Czar himself in this Noble undertaking was present at the Soundings in the Balfus Meas, and of Straits of Kafra, which are set down in Fathoms.

This Map has all the Improvements and Corrections, of Cap<sup>t</sup> John Perry.



Annotations from the map



Herman Moll, To His Most Serene and August Majesty Peter Alexovits Absolute Lord of Russia &c. This map of Moscow, Poland, Little Tartary, and ye Black Sea &c. is most Humbly Dedicated by H. Moll Geographer, 1729 ca. Hand Colored, 102 x 62 cm



Printed for W. Moll, Anatomist, Temple Bar in St. Dunstons Church, at the Black Ship in the Corner of Fleet Street near the Custom House in London. A Large Paper is also sold at the same Place.

# THE SANSONS - A FRENCH DYNASTY OF MAPMAKERS

Nicolas Sanson d'Abbeville (1600-1667), Nicolas Sanson - son (1625-1648), William Sanson (1633-1703), Adrien Sanson (1639-1718) and Pierre Moullart Sanson (16?? - 1730)

Among the French cartographers of the second third of the seventeenth century stands **Nicolas Sanson** (1600-1667), founder of a long dynasty of mapmakers. His tradition was continued by his son **Guillaume** and **Adrien** in collaboration with the editor **Alexis Hubert Jaillot**, and later by his little son **Pierre Moullart**. With the family Sanson efforts and with the support of the Royal Academy of Sciences, and the sponsorship of Louis XIV, the center of mapmaking was moved from Netherlands to France in the last third of the seventeenth century.

In his youth, **Nicolas Sanson**, it seems, begins to use mapping as a way to illustrate his historical work. He prepared a series of maps drawn so well, that they impress **Melchior Tavernier**, his first editor, and Cardinal Richelieu who called the "Ordinary geographer of the King". Sanson gave geography lessons to both Louis XIII and Louis XIV.

A prolific author, he has published in his lifetime many cards with **Pierre Marquette**, who published his most famous works, including "*General Maps of All Parts of the World*" (1658) - the first world atlas published in France and reprinted several times with an increasing number of maps.

In addition to the modern **Nicolas Sanson** made historic maps, with all geographic information of antiquity available. Indeed, its maps updated continuously with attention to detail and the removal of the decorative style that characterizes the cartographic production of his time. However, the work of Sanson is also appreciated for the quality of engraving and the elegance and refinement of its decorative baroque cartograms.

**Nicolas Sanson** is often called "father of French cartography" and he is not only figuratively, but literally.



Detail of "Estats de l'Empire du Grand Seigneur des Turqs ou Sultan des Ottomans en Asie, en Afrique, et en Europe", par Nicolas Sanson d'Abbeville, Geographe ordinaire du Roi, Avec Privilege pour vingt ans. 1654



Conseiller d'Etat et Geographe ordinaire du Roi, né à Abbeville, le 20 Decembre 1600 et mort à Paris le 7 Juillet 1667

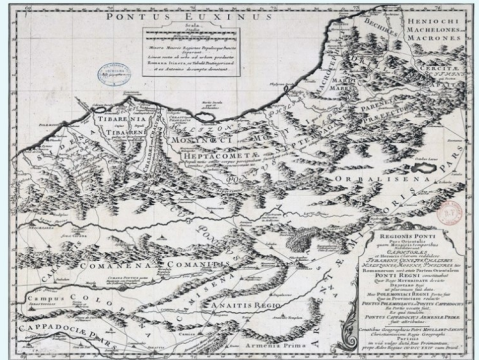


Estats de l'Empire du Grand Seigneur des Turqs ou Sultan des Ottomans en Asie, en Afrique, et en Europe; Par Nicolas Sanson d'Abbeville, Geographe ordinaire du Roi, Avec Privilege pour vingt ans. 1654



Pierre Moullart-Sanson (16...-1730), *Regionis Ponti pars orientalis quam moxastic temporibus nobilitatum Captivitatē et hereticis clarum reddiderunt...* / conatus geographicus Petri Moullart-Sanson, 1724

Guillaume Sanson (1633-1703), *Angulus Bosphori Straiti et indigetibus Petri Gryllii, delineatus a Gulielmo Sanson Nic. filio*, 1666  
Top detail of the map with a lighthouse in the Black sea



Nicolas Sanson - son, Hongrie

Guillaume Sanson (1633-1703), *La Mer Méditerranée divisée en Mer de Levant, et de Ponant, subdivisée en leurs Principales Parties ou Mers / ou sont remarqués en principales Golles, Caps ou Promontoires, Ports de Mers / Dessiné par Le Sc. Sanson, Geographe ordinaire du Roi*, 1704, chez H. Jaillot (A Paris)  
Bottom: map detail



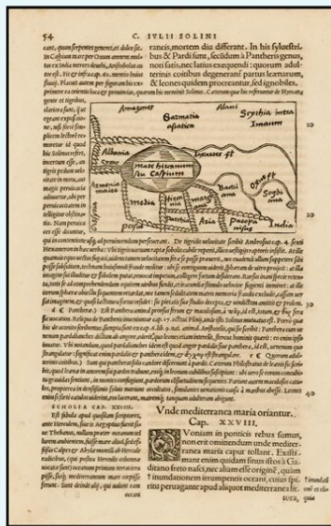
# PERSIA MAPPING XVI c.



Caius Julius Solinus: Caspian Sea Region - Armenia, Sarmatia, Scythia, Persia Assyria - 1538  
Scarce map of the area around the Caspian Sea from Solinus.

Caius Julius Solinus, Latin grammarian and compiler, probably flourished around the middle of the fourth century, though historical scholar Theodor Mommsen dates him to the middle of the third century.

He was the author of *De mirabilibus mundi* ("The wonders of the world") which circulated both under the title *Collectanea rerum memorabilium* ("Collection of Curiosities"), and *Polihistor*; but the latter title was favored by the author. *Adventus*, to whom it is dedicated, is identified with Oclatinus *Adventus*, consul 218. It contains a short description of the ancient world, with remarks on historical, social, religious and natural history questions. The greater part is taken from Pliny's *Natural History* and the geography of Pomponius Mela.



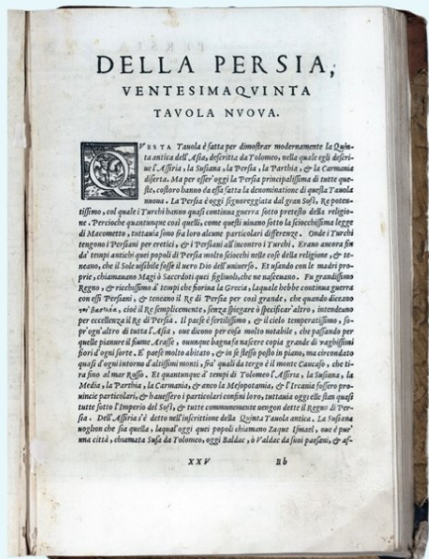
Barent Langenes: Persia - 1598  
Early state of Barent Langenes map of Persia. Langenes's map was first issued in his *Caert-thresour*, and later re-issued by Bertius in his *Tabularum Geographiarum*, beginning in 1600. The total number of appearances of this map run to no less than 12 appearances between 1598 and 1650, in the two works by Langenes and Bertius.

Laurent Fries: Asia Tabula Quinta, ptolemaic map of Persia and Mesopotamia, woodcut map, [Strasbourg], 1522-41

Laurent Fries was a French physician and mathematician born around 1485 in Mulhouse. He settled finally in Strassburg where he met Peter Apian and the publisher Johannes Grüninger which made him interested in the Ptolemy Atlas of 1513 and 1520. Fries made new woodcut maps in reduced size. His Ptolemy Atlas was published first in 1522, reissued in 1525, 1535 and 1541. He died in 1532.

Second edition of Michael Servetus' Ptolemy edition, published by G. Trechsel 1541 in Vienne, Dauphine. The text is the new Latin translation by the humanist Willibald Pirckheimer which first appeared in the 1525 edition, which has been edited by Michael Servetus, for the first time for 1535 edition and the second time for this 1541 edition. The maps of all four issues were printed from the same woodcut blocks which were made for the first edition by Laurent Fries in 1522. In most cases he simply produced a reduction of the equivalent map from the 1513 edition of Waldseemüller's *Geographie Opus Novissima*, printed by Johann Schott.

A special feature of the 1541 edition is the missing text on verso of some modern maps. This is due to the action of Calvinism, especially since the text on verso of the Holy Land map provoked controversy. Many of the first three editions were burned, which led Servetus to abdicate on some text on verso. Nevertheless, Servetus was burnt at the stake in 1553, condemned by Calvin for his doctrinal heresies, although the text is originally from Pirckheimer.



Girolamo Ruscelli, Persia Nuova Tavola, Venice / 1598

One of the earliest modern maps of Persia, which first appeared in the 1561 edition of Ruscelli's edition of Ptolemy's *Geographia*. Finely engraved map, centered on the Persian empire and the region around the Caspian Sea and extending to the Persian Gulf. Locates the Arabian Desert, Moxia, Persian, the Camania Desert, Tay, Tezichia, Cola, Mengrelia, Gazaria and Tartaria.

The first edition of Girolamo Ruscelli's translation of Claudius Ptolemy's *Geographia*, published in Italian. It was printed by Vincenzo Valgrisi in Venice, with the text translated from Greek by Ruscelli. The 64 double page copperplate maps were partly based on those of Jacopo Gastaldo in the edition of 1548, with descriptive text on recto of first leaf and verso of last leaf. Maps showing settlements, landmarks, rivers, mountains, ports, forests, illustrations of wildlife, etc. Relief shown pictorially. Bound in half leather marbled paper covered boards, with title "Geografia di Tolomeo" on spine.

Girolamo Ruscelli (c. 1504-1566) was a Venetian editor whose maps are primarily based on those by Jacopo Gastaldi (1548) but with many of his own additions and reproduced on a larger scale. Ruscelli introduces several important innovations in this volume through his 37 "modern" maps, which cover Europe, Africa, Asia and the New World. Ruscelli includes a dome hemisphere world map which was the first of its kind to be used in an atlas, and "Carta Marina Nuova Tavola", a rare sea chart of the world.



# FROM BLACK SEA TO PERSIAN GULF



Willem Janszoon Blaeu: *Persia Sive Sophorum Regnum; 1634*

Fine old color example of Blaeu's map of the Kingdom of Persia, first published in Amsterdam in 1634.

The map shows the Persian Empire in the midst of the Safavid Dynasty, one of the most significant ruling dynasties of Persia (1501-1722). The Safavid Dynasty is often considered the beginning of modern Persian history. After the fall of the Sasanian Empire and the subsequent Muslim conquest of Persia in the seventh century A.D., the Safavid Dynasty came to power. The Safavid shahs ruled over one of the so-called gunpowder empires, a reference to their adaptation of gun powder in their arsenals (the Mughal and Ottoman Empires being the other gunpowder empires).

This map shows the Safavid Empire as it starts to decline in 1634, after the Golden Age of Shah Abbas. With the introduction of European trade during the time of Abbas, Iran had become partners with the English and the Dutch. With the Shah dead and no suitable heir, the Dutch East India Company, and later the British, used their superior maritime power to control trade routes in the western Indian Ocean. As a result, Iran was cut off from overseas links to East Africa, the Arabian Peninsula, and South Asia.

In addition to being cut off from these links, Iran fought their arch rivals: the Ottomans and the Uzbeks. Iran had to contend with the rise of Russian Muscovy, and in the far eastern territories, the Mughals of India had expanded into Khorasan at the expense of Iranian control.

The Safavids ruled from 1501 to 1722 (experiencing a brief restoration from 1729 to 1736) and, at their height, they controlled all of modern Iran, Azerbaijan, Bahrain and Armenia, most of Georgia, the North Caucasus, Iraq, Kuwait and Afghanistan, as well as parts of Turkey, Syria, Pakistan, Turkmenistan and Uzbekistan.

Willem Blaeu

Willem Janszoon Blaeu was not only a distinguished cartographer and globe maker, but also a former student of Tycho Brahe. Blaeu discovered the second-known variable star: P Cygni. Once he returned to Holland, he set up a publishing company, primarily engaged in the publication of maps.

In 1633, Blaeu was appointed mapmaker of the Dutch East India Company (V.O.C.). Between 1602 and 1796, the V.O.C. sent almost a million Europeans to work in the Asian trade on 4,785 ships and netted for their efforts more than 2.5 million tons of Asian trade goods.

The map includes a dedication to Theodoro Tholing (Diederick Tholincx), who held the title of lieutenant of the civil guard in 1622. He was a merchant on the Heeregracht in Hamburg and a director of the V.O.C. He was a member of the Amsterdam Council from 1625 until he went bankrupt in 1644.



John Speede: *The Kingdom of Persia with the chief Cities and Habites described by John Speede; London / 1626*

Decorative map of Persia from the first edition of Speede's Prospect. Includes four town vignettes across the top and 4 sets of costumes. The text on the verso provides a colorful Anglo-centric view of life in Persia at the beginning of the 17th Century.



Guillaume de l'Isle: *Map of Turkey, Arabia and Persia; London: D. Browne, 1721*

Relief shown pictorially. From Senex's New general atlas. Published in London by D. Browne in 1721.

Guillaume Delisle, also spelled Guillaume de l'Isle, (28 February 1675, Paris – 25 January 1726, Paris) was a French cartographer known for his popular and accurate maps of Europe and the newly explored Americas.

# NESEBAR - WORLD HERITAGE CITY



The light of the Emine's lighthouse comes from the north end of the beautiful Gulf of Burgas, where Nessebar - a World Heritage City - is located.

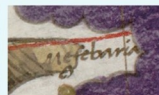
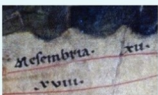
Nessebar is one of the oldest and most picturesque cities in Bulgaria and in Europe. Charming combination of unique natural beauty, sea fragrance and romance combined with glittery presence of modern tourist resorts.

Due to its great historical and cultural value, Old Nessebar was listed in 1983 as one of the world cultural heritage sites under UNESCO protection, along with such cities as Rome, Persepolis, Taj-Mahal, Memphis.

Next to the lighthouse is the most impressive landmark in the area - Cape Emine - where the colliding Balkans and Sea have erected 80-foot rocky cliff housed in a medieval Christian church.



The entry in this list attaches the universal value of a cultural or natural heritage to be preserved for the benefit of mankind.



# TODAY'S WORLD MAPPING

Nowadays map making heavily relies on computer software to develop and provide a variety of services, a trend that already started at the end of the previous century. For instance, self-location, browser search of places, business, products, and area and distance calculation. At the present time, computer based software is dominated by big companies that offer their services to a worldwide public, such as Google Maps, Bing Maps, National Geographic Maps, ESRI Geographic Information System (GIS), CartoDB, Mapbox, etc. Many other state-based, regional and smaller initiatives and companies offer their services. The list of online map services is quite long and is growing everyday.

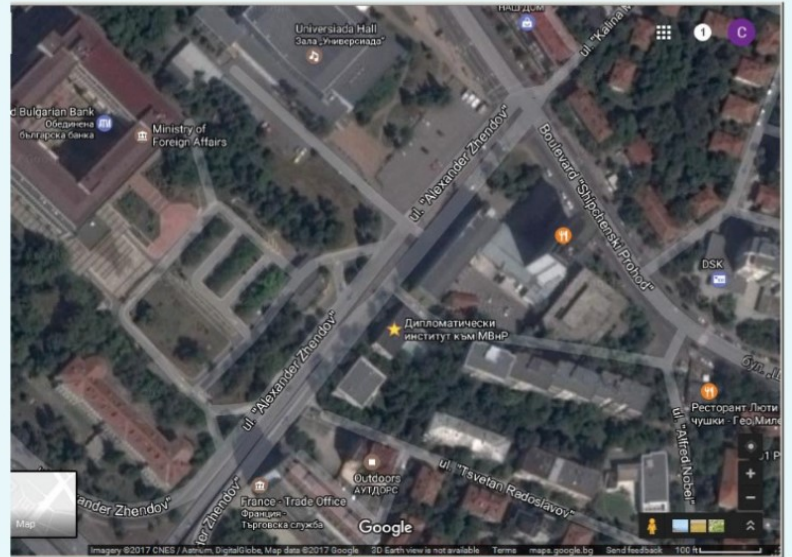
Modern GIS technologies use digital information, for which various digitized data creation methods are used. The most common method of data creation is digitization, where a hard copy map or survey plan is transferred into a digital medium through the use of a CAD program, and geo-referencing capabilities. With the wide availability of ortho-rectified imagery (from satellites, aircraft, Helicopters and UAVs), heads-up digitizing is becoming the main avenue through which geogra-

phic data is extracted.

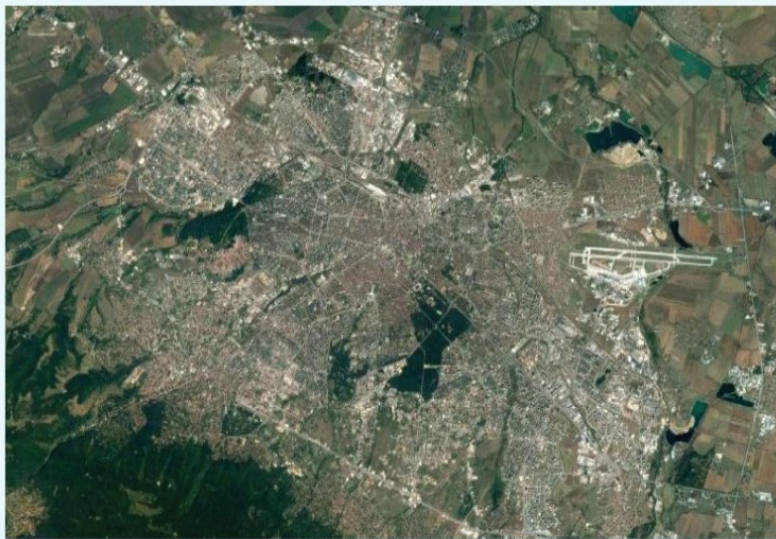
The first images from space were taken on sub-orbital flights. The U.S.-launched V-2 flight on October 24, 1946 took one image every 1.5 seconds. With an apogee of 65 miles (105 km), these photos were from five times higher than the previous record, the 13.7 miles (22 km) by the Explorer II balloon mission in 1935. The first satellite (orbital) photographs of Earth were made on August 14, 1959 by the U.S. Explorer 6. The first satellite photographs of the Moon might have been made on October 6, 1959 by the Soviet satellite Luna 3, on a mission to photograph the far side of the Moon. The first satellite photograph of Earth from space was taken from space in 1972, and has become very popular in the media and among the public. Also in 1972 the United States started the Landsat program, the largest program for acquisition of imagery of Earth from space. Landsat Data Continuity Mission, the most recent Landsat satellite, was launched on 11 February 2013. In 1977, the first real time satellite imagery was acquired by the United States's KH-11 satellite system.



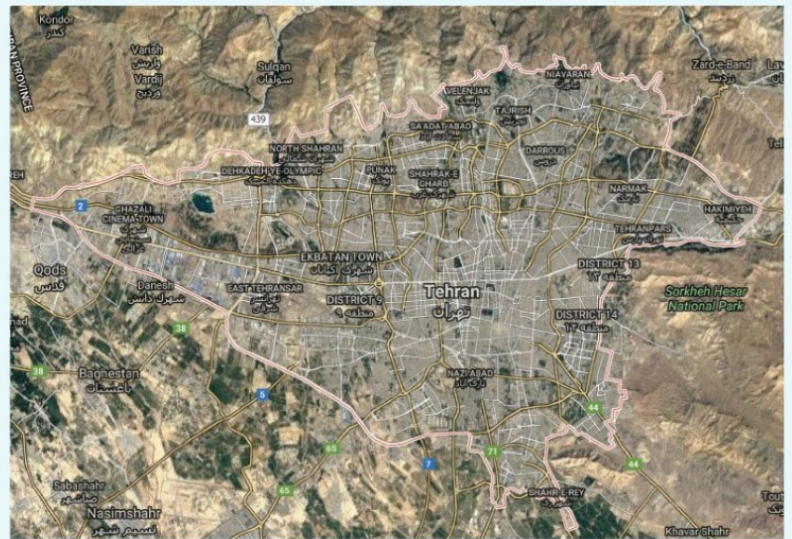
The Blue Marble is an image of the Earth made on December 7, 1972, by the crew of the Apollo 17 spacecraft at a distance of about 45,000 kilometers (28,000 miles). It is one of the most reproduced images in human history.



The Bulgarian Diplomatic Institute in Google maps.



Satellite map - Sofia



Satellite map - Tehran

Earth views in different scales. The Black sea can be seen as well as the Persian Gulf.

