Title: Juan de la Cosa Portolan World Chart
Date: 1500?
Author: Juan de la Cosa

Description: The original parchment of this map or chart, a piece of ox-hide measuring 375 x 72 inches (960 x 183 cm), superbly illustrated in ink and water colors, was found in 1832 in a shop in Paris by Baron Walckenaer, a bibliophile and the Dutch Ambassador, and was brought to the attention of the world the following year by Alexander Humboldt, the famous German naturalist and explorer, who authenticated the map after an extensive study. Upon the death of Baron Walckenaer in 1853, the Queen of Spain purchased the map and, though greatly deteriorated, is now the chief treasure of the Museo Naval in Madrid. Notwithstanding several large holes, the map may be said to be in a good state of preservation. There is, however, a regrettable gap on the northern coast of Brazil, where a piece two inches wide, containing names, has been torn off. Originally a manuscript map, it was never engraved or printed until recent years, and therefore may have exercised little influence on the cartography of the 16th century, except for those privileged few who were allowed to study it.

The name of the maker of the map is in the legend under the picture of St. Christopher, at the left, which reads: Juan de la cosa la fizo en el puerto de S: ma en año de 1500 [Juan de la Cosa made it in the port of Santa Maria in the year 1500]. Most scholars identify the name of Juan de la Cosa, which appears on the parchment, as the Basque seaman and cartographer who sailed with Christopher Columbus on his first and second voyages. A Basque with the surname of El Viscaino, or Biscay man, one Juan de la Cosa, was the owner and master or mate of Columbus’ flagship Santa Maria, and he accompanied Columbus on the second voyage. He sailed with Alonso de Hojeda and Amerigo Vespucci on the voyage to the Faria Peninsula in 1499, and with Rodrigo de Bastidas to the north coast of South America in 1500. In 1503, he commanded an expedition to Uraba (Panama) and between 1504 and 1506, he conducted a voyage of discovery to Darien (Panama). He sailed again to the Indies in 1507 and, in 1509, he settled with his family in Hispaniola. In November of that year, he accompanied Hojeda on an expedition to Darien, during which he was mortally wounded by a poisoned arrow. He died at Cartagena on February 28, 1510.

By contrast, Samuel Eliot Morison suggests that there were two Juan de la Cosas. The first was the one who commanded the Santa Maria on the first of Columbus’ voyages and disgraced himself when his ship was grounded and wrecked. The other Juan de la Cosa, who conducted the subsequent voyages listed above and who died at Cartagena, was the cartographer that made the map in question.

The date is under contention because several aspects of geography depicted in the Western Hemisphere were not defined until later. Some scholars accept the date of 1500, others do not. One of the latter is George E. Nunn. In The Mappemonde of Juan de la Cosa he held that the map is a copy and not an original work of La Cosa, and that it probably dates from about 1508 instead of 1500. He argued, (a) that the insular nature of Cuba shown on the map does not fit the exploration record as of 1500; (b) that the map makes South America a peninsula of southeastern Asia believed in by Martin Behaim (#258), and that no
navigator or explorer is known to have held this concept before Columbus’ fourth voyage; (c) that it shows evidence of exploration of the coast west of Cabo de la Vela to the vignette of St. Christopher and beyond it west of Cuba, by which exploration Nunn meant the mainland discoveries of Rodrigo de Bastidas and La Cosa in 1501-02 and of Columbus in 1502-03; (d) that it shows evidence of both of the Cabot voyages; (e) that it shows evidence of exploration of southern Brazil after 1503 at least; and (f) that it shows the island group in the South Atlantic Ocean which corresponds to the Tristan da Cunha islands. Nunn concluded that some of this information could not have been available to La Cosa at the earliest before 1504, and some of it probably not before 1507 or 1508.

Another theory claims that this is a copy by a draftsman who was unable to decipher La Cosa’s original lettering. This theory is born out by the many names, even on the South American coasts that had been explored by Cosa himself, that are unintelligible and meaningless.

However, the date of 1500 was confirmed by a series of rigorous laboratory testing: radiography, reflection of rays and ultraviolet rays. Moreover, as far as its publication date, not only does the map carry on it the date of 1500, but it has features that would have been utterly different had it been compiled in 1508. Thus in 1501-02 Cosa explored the Gulf of Uraba and the coast of Darien, yet these are not shown on his map nor are there any names on the hypothetical coasts drawn thereon. Again Columbus in 1502-03 explored from Yucatan to Darien and his coasts and names are not shown on the Cosa map. The weakest feature of the Cosa map is its grotesque representation of Brazil south of the equator. This was excusable in 1500, but by 1508 Amerigo Vespucci was pilot-major of Spain and his great voyage from 5° S to 42° S would have been available for La Cosa to correct his outlines of South America. There is no cause to doubt that the Cosa map was compiled in 1500. La Cosa returned to Spain with Alonso de Ojeda [Hojeda] in July 1500 and left again with Bastidas for Colombia in October of that year, which means that the map was drawn between these months.

As mentioned above, the author of this map, regarded as one of the oldest cartographic documents relating to the voyages of Christopher Columbus (1451-1506) and John Cabot (ca 1455-1499), is Juan de la Cosa (c. 1509). La Cosa has been called “the most expert mariner and unrivaled pilot of his age.” With others he signed the famous affidavit, demanded by Columbus, that he believed Cuba to be a part of the mainland of Asia.

The Juan de la Cosa mappamundi is classified as a portolan, or sailing chart, after the style of maps drawn in Spain, Portugal, and Italy during the 14th and 15th centuries. The term is properly restricted to charts that give sailing directions and generally disregard the interior of landmasses, emphasizing coasts, currents, harbors, shoals, and winds. The charts also display a system of lines emanating from the center of compass roses. These are navigational aids that were first placed on the sailing charts in the Middle Ages to designate points of the compass. The Italian portolan originated in the Greek periplus, a harbor-book or set of sailing directions describing harbors, shoals, distances, currents and winds, but containing no map. The Italian portolan was made on the model of the periplus but contained a map or chart showing the coastline and a few places along the coast, but, as it was intended only for seamen, it gave little information of the interior of even the most populous countries. After the invention of the compass, portolans became numerous. At least one hundred portolan charts made before 1500 are still in existence (see #250.1). Modern maps developed from these portolans. In addition to Juan de la Cosa, some of the most distinguished makers of Renaissance portolan charts
were Alberto Cantino (#306), Nicolo de Caveri (#307), Diego Ribero (#346), Vesconte de Maiollo (#328.2) and Battista Agnese (#371).

The map of La Cosa actually consists of two charts, one of the “Old World” and one of the “New World”, separated and plotted in two different scales, as is the case for a number of maps from this era. The scale is given by a line of dots, unnumbered and unexplained; the distance between the points however is apparently intended to represent fifty miles. Both chart sections are attached along the meridian through the Azores. The scale on which the New World is drawn is larger than the Old World, the proportion is 1.4 to 1 with the consequent extension of the place America occupies in relation to Europe, Africa and traced part of Asia. Another consequence is that Brazil is almost the same latitude as Cape of Good Hope and that Cuba is placed above the Tropic of Cancer. The 400-mile distance separating Ireland to Newfoundland is reduced to 240 miles. This feature of the map indicates that La Cosa himself traced only the New World section and an anonymous cartographer added the section on the Old World to allow users of the map to compare the two.

The map, which depicts a circumference of 360°, incorporates Columbus’ erroneously small estimation of the earth’s diameter. The landmass in the Western Hemisphere is disproportionately large when compared to Europe, Africa, and the Mediterranean Sea. The absence of latitude and longitude and the style of projection preclude easy identification of specific areas. Many islands are defined in the Caribbean Sea. Cuba is depicted as an island with a fishhook shape and is named as such for the first time on any map. Columbus did not regard it to be an island but rather part of a Chinese province and named the island Juana for Queen Isabella’s daughter, Dona Juana Infanta. The chief interest of the map is depiction of the east coast of continental land in the Western Hemisphere, although it was assumed that the land was a part of Asia.
The *La Cosa* chart also displays compass roses and direction lines. The northern tropic (i.e., the Tropic of Cancer) and the equator are drawn, but lines or degrees of latitude or longitude are not indicated except the *línea meridional* crossing the tip of Brazil, which is thought to be the *Line of Demarcation* established by the Treaty of Tordesillas of 1494. This line is also plainly indicated with a suitable inscription on the *Cantino* map made in 1502 (#306). *La Cosa*, who was Basque by birth, placed most of the New World under Spanish jurisdiction. The lack of parallels and meridians, and the apparent compilation of the map from separate *portolan* charts of the Old and New Worlds with differing scales but no attempt to reconcile them, reveal the extreme difficulties involved in constructing a world map, or planisphere, during the early period of the Age of Discovery.

The chief interest in the map is its delineation of the coastline of the New World so recently discovered and so little known at that time. North America, which in most early maps (up to 1506) normally consisted of separate islands, only later fusing into a cohesive whole, is shown on the *Cosa* map as a solid landmass extending far into the North Atlantic. In the west are the discoveries of Cabot in the north and of Columbus and the Spaniards in the West Indies and along the northeastern coasts of South America.

The Caribbean islands already show, in contrast to Columbus’ ideas, clear hallmarks of the way they appear in much later maps. The Bahamas group is shown with some accuracy but necessarily on a small scale. It includes the island *Guanahani*, Columbus’ first landfall, alternatively known as *San Salvador* and now identified with Watling Island. No special emphasis is given to this memorable locality. Haiti and Cuba
are located north of the Tropic of Cancer. The latter island is now first known by that name. Columbus had called it Iuana. Its representation as an island, instead of a part of the mainland of Asia, indicates that La Cosa had changed his opinion since he signed the famous affidavit. The historian Henry Harrisse sees in this insular character of Cuba strong confirmation of the much-disputed story of Vespucci’s voyage along the coast of the mainland in 1497. He points out that there is no record of any other voyage prior to 1500, the date of the map, which had revealed the insularity of Cuba, and that La Cosa may have obtained his information directly from Vespucci, while they were together under Ojeda, in 1499, on the Pearl Coast. The later world maps of Cantino, and of Cavari, 1502, agree with La Cosa in putting water and a mainland west of Cuba; indeed these two maps are even more explicit than that of La Cosa in that they place more than a score of names on the supposed mainland, which may be identified as Florida.

The earliest and, for more than half-a-century, the most complete description of Cuba is the one which is inserted in this famous planisphere. La Cosa was considered in Spain as the greatest cartographer of his day, and the pilot best conversant with the West India seas. He had been, moreover, Christopher Columbus’ chief pilot on several transatlantic expeditions. No seaman, therefore, could then make a more reliable chart of the Antillies than Juan de la Cosa; and his map of Cuba must be considered as embodying all that which was known concerning its ports, rivers, capes, and other seashore localities, from the time of the discovery to the close of the year 1500. On his cartographical representation of Cuba, the great Basque pilot has inscribed as many as twenty-seven names of landings, estuaries, streams, harbors, headlands, towns, or hamlets. In the Cantino map (#306), drawn in 1502, the coastline, alleged as aforesaid to be a duplicate of the island of Cuba, contains also numerous nomenclature. Here again, if that region in the Cantino chart is really Cuba, we should find among its legends and designations the identical names that are inscribed on the Cuba of La Cosa, especially as both maps were crafted within a year of each other. An analysis of such nomenclature by the scholar Henry Harrisse has determined that there is not even a single matching place-name among the twenty-two. The fact, of itself, were it not supported by the other proofs which have been documented, is sufficient evidence that the northwest coast in the Cantino map and Cuba in La Cosa’s map were intended to represent two entirely different geographic areas.

On the large landmass across the Atlantic in the latitude of England are five English standards with the legend ‘sea discovered by the English’. These presumably refer to Cabot’s voyages; the south-westward direction of the mainland coastline, in somewhat stylized cusps, is variously interpreted. It may intend to show the coastline of Asia, though no names or legends support this theory; it may record the knowledge derived from a voyage along the North American coast, though conclusive evidence of such explorations by surviving ships of John Cabot’s 1498 expedition or by other vessels is lacking. La Cosa’s map was constructed in two sections, the old world on a smaller scale than the new world. The tip of Brazil consequently is near the latitude of the Cape of Good Hope and Cuba is north of the Tropic of Cancer. The corruption of some place names on the map suggests that this is not the original but a copy of Cosa’s map.
Nomenclatures play such an important part in the identification of cartographical documents; they enable us to ascend so surely to the origin not only of names, but also of the configurations on which we find them inscribed, that no better means can be employed by critics to solve the numerous problems which are involved in every ancient map, chart, and globe, without a single exception. And even when the names are scarcely legible, or evidently corrupted by the inattention of cartographers, and their ignorance, oftentimes, of the language employed in the prototype, they still serve to indicate the source from which were borrowed important geographical averments. But La Cosa’s chart was made before October 1500, yet Cuba is depicted therein as it is in reality, elongated, deeply indented (at Nipe, Nuevitas, Turiguana, Cardenas, Matanzas, etc.), depressed or strangulated in two places (Manzanilla-Jbara
and Sabanilla-Jalibonicco), the western extremity curved and forming at its southwest end a very large bay, which is studded with islands.

La Cosa avoided the problem of the possible existence of straits in Central America that might provide a sea link to the Far East. Apart from its decorative function, the vignette that he inserted in Central America serves to hide the part of the new lands unknown when looking for a passage to Cathay. La Cosa uses a similar ploy by truncating the route from Asia to avoid the question of whether Columbus and Cabot arrived in the far eastern Asia or in a new land. The map exemplifies the problem of the exact concept of the New World and the perception of geographical discovery in the days of La Cosa. The vignette at the left of the map represents St. Christopher, with a pine tree as a staff, carrying the infant Jesus over the deep water, as Christopher Columbus carried the knowledge of Christ over the sea to the natives of the newly discovered lands. As mentioned, below the drawing of St. Christopher in the neck of the skin, is the inscription *Juan de la Cosa la fizo en el puerto de s. maria en ano de 1500*. It has been suggested that the face of the saint is a portrait of Columbus. It is a matter of argument whether La Cosa intended to represent the mainland behind Cuba as the eastern coast of Asia. If so, it seems strange that he placed no Asiatic names upon it as other cartographers did later on.

Cuba appears here for the first time under the name derived from the native word *Cubanacán*; Columbus had called the land *Iuna*. La Cosa displays *La Espanola* (Haiti) north of the Tropic of Cancer. It is presented as an island and not as part of the Asian continent, a view contrary to the concept of Columbus who always considered Cuba a peninsular extension of Asia.
Since this was possibly the earliest scientific representation of the New World, the rendering of the Antilles and of the northern coast of South America is of particular interest. The continental coasts of Central and North America, as well as the coast of Brazil, seem mostly conjectural, although the voyages made by Giovanni Caboto (1496-7) in the north and Pedro Alvares Cabral (1500) in Brazil are reflected on the map. What
is shown of South America also suggests that it is probably a continental landmass. Off the coast of Brazil, the island with the legend, *Ysla descubierta por portugal* [Island discovered for Portugal], refers to the fact that on January 28, 1500, approximately two months after his departure from Palos, Vicente Pinzón finally located the promontory extreme eastern Southern Hemisphere and indicates La Cosa’s belief concerning the location of the land discovered by Cabral in 1500. He called it *Santa Maria de la Consolacion* and took possession for the Spanish crown. This event took place three months before the same site is seen by the explorer Portuguese Pedro Alvares Cabral (ca 1467-1520) during his journey to India via the Cape of Good Hope. The news of this discovery was probably brought to Spain while La Cosa was still working on his map. On the coast of the mainland farther north is the legend: *Este cavo se descubrio en año de mil y III XCIX por Castilla syendo descubridor vicenttians*. [This cape was discovered in the year 1499 for Castile, Vicente Yañez being the discoverer thereof.] This refers to the discovery made by the Spaniard, Vicente Yañez Pinzon, January 20, 1500 (1499 old style), three months before the Portuguese Cabral sighted the same coast on his way to India via the Cape of Good Hope. *Mar Dulce* commemorates the current of fresh water at the mouth of the Orinoco River seen by La Cosa far out to sea when he was with Columbus on his second voyage. *Costa de perlas*, or the Pearl Coast, on the northern coast of South America, was first discovered by Columbus on his third voyage in 1498 and had been visited again by La Cosa, with Ojeda and Vespucci, in 1499.

The *liña meridional*, which crosses the extreme east of Brazil, is the line fixed in 1494 by the Treaty of Tordesillas, dividing the territories between Spain and Portugal. It is now the meridian 49° W of Greenwich.

While Cosa could draw upon the voyages of Columbus and Spanish explorers for the Antilles and much of South America, no Spanish ships had by 1500 visited Central and North America. The *Cosa* map represents them as a continuous landmass extending to the Arctic, which was cosmographically correct, but the actual coastlines are clearly hypothetical in outline and without nomenclature, proving they were not based on charts of actual voyages that had explored such coasts. The one exception is the east-west coast in the northwestern portion of La Cosa’s map with the five English flags shown at about 52° north. Five English flags in pale blue and brown, are planted in the North Coast with the inscription *Mar descubierta ynglesie in* [Sea discovered by the English]. Southeast of the map marked with the words *cavo of ynglaterra* [Cape of England]. La Cosa here refers to explorations in British North America, made in 1497 and 1498, by John Cabot (ca 1455-1499). The source used by La Cosa for this part is presumably inspired by the map of John Cabot on his explorations in America and now lost. Indeed, it is almost certain that La Cosa copied this part of the coast of Cabot’s map drawn in 1497 after his return to England and sent to King Ferdinand by the Spanish ambassador to England, Pedro de Ayala. The map historian R.A. Skelton wrote: “The only map which unambiguously illustrates John Cabot’s voyage of 1497 . . . is the world map signed by Juan de la Cosa and dated 1500”. A study of the Cabot voyage of 1498 by J.A. Williamson reveals that this voyage coasted from Greenland to New England and that Cabot’s ship went down off Newfoundland, leaving the consort vessel to bring news of his end to England in the early summer of 1499. The English coasts on the *Cosa* map consequently represent the discoveries made in the 1497 voyage. Cabot left Bristol on 2nd May 1497 in a little ship called the *Matthew*, with a crew of only eighteen men. Information as to his discoveries in English records is meager but certain statements provide a skeleton by which they may be reconstructed.
1. It is known that he tacked against the westerlies for 54 days and made landfall on 24th June (Bristol records). Sebastian Cabot, in his map of 1544 (#372), indicated this landfall as Cape Breton island: *This land was discovered by John Cabot the Venetian and Sebastian Cabot, his son, in the year 1497 on the 24th June in the morning, to which they gave the name “Land First Seen”. Since Sebastian had no motive for lying about the location of the landfall there is no reason to doubt this statement.*

2. Lorenzo Pasqualigo to his brothers in Venice on 23rd August 1497: *That Venetian of ours who went with a small ship from Bristol to find new islands has come back and says he has discovered mainland 700 leagues away, which is the country of the Grand Khan, and that he coasted it for 300 leagues and landed and did not see any person, ... and on the way back he saw two islands...*

   Unfortunately, this cartographical data is not sufficiently precise to enable one to locate the landfalls with adequate exactness. Nor is the kind of projection adopted, without explicit degrees of latitude, of such a character as to aid someone much in determining positions. One is compelled, therefore, to resort to inferences.

   Much attention has been attracted to La Cosa’s representation of the northeastern coastline of America. Placed along the northeastern coastline of North America are five English standards. The phrases *mar descubierta por yngleses* [sea discovered by the English] and *cavo de ynglaterra* [cape of England] offer irrefutable evidence of John Cabot’s exploration in 1497. This corresponds with a point almost as high north as the entrance to Davis Strait, indicate the explorations of the Cabots in 1497 and 1498, probably reached either Newfoundland or Nova Scotia, i.e., 50°- 53°N. It is believed that la Coa derived this delineation from a copy of Cabot’s map (now lost) that was sent to King Ferdinand by Pedro de Ayala, the Spanish ambassador to England. The North American continent displays twenty inscriptions, including seven cares, a river, an island, and a lake. The names are not significant, since they are not found on subsequent maps. The principal features are (I) a prominent cape, *Cavo da Yngleterra*, about 1,300 miles from south-west Ireland, and approximately in the same latitude; (2) to the west of this Cape, an extent of coastline, running about due west for approximately 1,200 miles: a number of features along this coast are named, and this is the only portion of the North American coastline on which names occur; and (3) beyond this coast, a stretch without names continues for another 700 miles, forms a bay, *Mar descubierta por Yngleses*, and then turns southwards.

   The *Cavo da Yngleterra* is shown in about 56° N latitude. Since, however, the latitudes of many places in Europe are out by several degrees (Land’s End, for example, is shown 4.5° too far north) the *Cavo* may be assumed to be not further north than 51° 30' N, which would put it in the neighborhood of Belle Isle Strait. On the other hand, the 1,200 miles of explored coastline is in all probability southern Newfoundland or Nova Scotia, so that the *Cavo de Yngleterra* must have lain further south, and Cape Race at once suggests itself, but as nothing more than a possibility. J.A. Williamson, however who credits this charting to the Cabots in 1497-8 believes that the *Cavo* was Cape Breton, while G. E. Nunn identifies it with Cape Farewell in Greenland.

   The northwestern portion of La Cosa’s map sets forth twenty inscriptions, seven of which are the names of capes, whilst one refers to a river (*río longo*), another to an island (*isla de la trinidad*), and a third to a lake (*lago fore*?). Although many of those
designations convey no meaning to the scholar (apparently on account of imperfect transcriptions), and are not to be found on any other map, they must be considered as proving that the coast had been actually visited before 1500. On the other hand, the northernmost names represent certainly the points marked by John Cabot during his first voyage, whether we place them on the north coast of Labrador or on the east shores of Newfoundland. But as the line of English flagstaffs covers a space by far too extensive for the Cabot voyage of 1497, which lasted only three months, the legends placed further south necessarily apply to the expedition of 1498.

When preparing himself to return to the newly discovered regions, John Cabot told Raimondo di Soncino that his intention was to pursue the undertaking as follows: “From the place already possessed [discovered] he would proceed by constantly following the shore, until he reached the east, and was opposite an island called Cipango, situate in the equinoctial region.”

All that is clear in this vague description, and which must be retained just now, is that John Cabot’s ultimate objective, when he set out from England in 1498, was an equatorial or southern region situated south of the point reached by him in 1497. To this interpretation must be added the fact that the line of British flags in La Cosa’s map, corroborates such an intention, as it indicates plainly a southward coasting.

How far south then did John Cabot go in 1498? Taking the distance from the equator to the extreme north in La Cosa’s map as a criterion for measuring distances, and comparing relatively the points named therein with points corresponding for the same latitude on modern planispheres, the last English flagstaff in the southern direction seems to indicate a vicinity south of the present-day Carolinas.

In latitude the Old World portion of the map extends from the Scandinavian peninsula southwards to the African continent. The African coast as far as the Cape of Good Hope is represented with fair accuracy, apparently drawn from Portuguese sources. The eastern coast however seems to be entirely imaginary. Well out in the Indian Sea, almost in the center, are two large islands, Zanabar and Madagascua, as on Behaim’s globe (#258). La Cosa shows the coastline of Africa and the Cape of Good Hope with considerable accuracy. The inscription on the southern coast of Asia, tierra descubierta por el Rey don Manuel Rey de Portugal [land discovered by King Manuel King of Portugal], refers to Vasco da Gama’s voyage to Calicut on the western coast of India from which he had returned to Portugal the previous year from his first voyage. The numerous names on the eastern coast of Africa, however, cannot be attributed to da Gama.

Ceylon/Sri Lanka appears in the large triangular island of Trapobana. The non-peninsular coast of India is from the Ptolemaic cartographic tradition; the outline of the Asian coast, however, is no improvement on that of the Catalan Map of 1375 (#245). In the various kingdoms into which Asia and Africa are divided by La Cosa are
pictures of the reigning sovereigns, some seated on thrones. In the far northeastern corner of Asia, enclosed by a great semicircular river and split by a broad moat, “R[egio] Got” and “R[egio] Magot”; above R. Got is a dog-headed figure. Above R. Magot is a humanoid monster whose face is in its chest and who holds in each hand what appears, from the color and shape, to be a piece of meat. The topos of Gog and Magog as anthropophagi has been merged with Solinus’ blemmyae in the latter example, with another legend concerning men with dog’s heads in the former. R. Got and R. magot suggest the Biblical Gog and Magog (see separate monograph).

At Babylon is seen the tower; near the eastern shore of the Red Sea, which on the original parchment is properly colored red, is the Queen of Sheba with drawn sword; and crossing Asia towards Syria are the Three Wise Men, bearing gifts.

The Cosa planisphere does not extend eastward beyond the northern border of the Arabian Sea, omitting, therefore, Hindostan, the Malay Peninsula and China. Yet the La Cosa map depicts the Rio Ganges, but where one would also expect the Indus River. All of the Asian portion of the Cosa map is extremely inferior, particularly compared with other contemporary world maps such as the Cantino chart (#306), although there is only a difference of eighteen months between the two. However, it should not be inferred from such an important omission that La Cosa considered the continent, depicted by him west of Cuba, as identical with the east coast of Asia, and, consequently, could not have added the latter to his eastern configurations without repeating what he had already marked on the same map. Had such been his geographical conception of the world, he would not have omitted the India intra and extra Gangem, and especially the Molucca regions, nor to name Cathay, Mangi and all the cities and provinces rendered famous by Marco Polo and which had figured in all mappamundi of the 15th century.

As mentioned earlier, the map in fact has every appearance of having been put together from at least two sections: the western portion comprising the American discoveries and perhaps the West African coast having been joined to a portion of a world map resembling those of fifty years earlier which display the influence of Ptolemy. If we use the distance between the tropic and the equator to obtain a scale of degrees, and apply this to the map, we find that in the western section, though there are discrepancies, the general picture is not wildly inaccurate. The newly discovered lands are placed in fair relationship to those of Western Europe. The longitudinal difference between the Iberian coast and Hispaniola is apparently about 62°, instead of 59°, and between the African coast and the northeast coast of South America approximately 16°, instead of 17.75°. For a reason which has never been satisfactorily explained, Hispaniola and Cuba are placed well to the north of the tropic; the north coast of Cuba being shown in approximately 36° N., some 12° too far north. Whatever the reason for this, it would appear that the Central
and South American portion is on a larger scale than the rest of the map.

The representation of Africa is distorted by the excessive length of the Mediterranean. The general shape of the western coastline is good, though, in relation to the west-east extent of the Gulf of Guinea coast, the coastline southwards to the Cape is too short. This was a characteristic of early Portuguese charts of this region: owing to adverse sailing conditions, it was usual to underestimate distances run.

In the top right corner at the farthest limits of the map’s coverage in northern Asia de la Cosa places the monsters Gog and Magog, one half dog and the other half with his head on his chest, apparently eating human flesh.
Africa as shown on a reproduction of the La Cosa map

Previous cartographic studies of the 1500 map by La Cosa have found substantial and difficult-to-explain errors in latitude, especially for the Antilles and the Caribbean coast. In Luis Macias’ study, a mathematical methodology was applied to identify the underlying cartographic projection of the Atlantic region of the map, and to evaluate its latitudinal and longitudinal accuracy. The results obtained show that La Cosa’s latitudes are in fact reasonably accurate between the English Channel and the Congo River for the Old World, and also between Cuba and the Amazon River for the New World. Other important findings were that scale is mathematically consistent across the whole Atlantic basin, and that the line labeled Cancro on the map does not represent the Tropic of Cancer, as usually assumed, but the ecliptic. The underlying projection found for La Cosa’s map has a simple geometric interpretation and is relatively easy to compute, but had not been described in detail until this study. It may have emerged involuntarily as a consequence of the mapmaking methods used by the map’s author, but the historical context of the chart suggests that it was probably the result of a deliberate choice by the cartographer.

The Juan de la Cosa map is generally presented as the oldest extant map based on the transatlantic discoveries of the Europeans. Some authors have considered the planisphere of Juan de la Cosa as the first unofficial Padrón Real and the model for the forthcoming Spanish nautical planispheres. Because of this, it apparently was not available to other contemporary cartographers and had little influence on the subsequent mapping of the Western Hemisphere.
According to Joaquim Alves Gaspar the planisphere of Juan de la Cosa may be considered the earliest scientific representation of the New World, in the sense that it reflects the information collected during the exploration missions rather than any preconceived geographic model. It depicts four continents (Europe, Africa, Asia and the Americas), however it is not obvious whether the New World is considered a separate landmass or not. Although nothing in the representation of the coast of North America suggests that Columbus identified it with the coast of China, a discrete legend with the name „orient“, placed in the southern part of the coast of Brazil, reveals that the possibility that the Indies lay nearby was still alive.

Several studies have been published concerning the planisphere of Juan de la Cosa following the discovery of the manuscript Paris about 180 years ago. Some of the best-known contributors include George Nunn (1934), Arthur Davies (1956), Edzer Roukema (1959), Ricardo Cerezo Martinez (1992-94) and Fernando Silio Cervera (2000). These authors agree that the chart contains a collage of distinct pieces of information compiled from different sources created at various points in time. They do not agree on the explanation for distortions of scale for the Caribbean Sea, the dimensions for which appear significantly exaggerated relative to those of Europe and Africa. A possible interpretation for this phenomenon is that this scale distortion was a means of artificially emphasizing the importance of the discovery, which would reflect Columbus’ well-known exaggerations concerning the size of the islands as well as the distances travelled along the coast of Cuba. Some authors explain the distortion with an alleged collage of two cartographic representations, one for the old world and the other for the Americas, created using different scales. Others consider the effect of magnetic declination on the courses followed by the pilots to be responsible for the distortion. One recent study proposes that, through the adoption of an „unknown map projection“, the line identified as the Tropic of Cancer on the chart is, in reality, the ecliptic.

Michael Ferrar, in a recent article analyzing the chart attributed to Juan de la Cosa provides the following insightful conclusions. The examination of the chart has clearly indicated there at least two draughts persons at work to produce the finished chart. The basic wind-roses on the two sections are stylistically different as are the bordure lines and treatment of the presentation. From that information it is possible to opine that the eastern section was drawn as a stand-alone chart of the Mediterranean Sea, Africa and the Far East. It is thus probably dated to the period after the voyage by Bartolomeu Dias in 1487/89 and Pedro de Covilhao in 1487/90. We should also note that the Henricus Martellus world map is dated c1490 (#256) and is likely to be from the same derivation. Thus it is possibly a precursor chart for indicative eastern exploration.

This portion of the la Cosa chart was then „high-jacked“ as it was probably now inaccurate as the exploration in the east continued apace. The naming (in the lower right) is empty and the eastern bordure scale bar is incomplete, but, where exactly and when it was drawn is indeterminable, however Ferrar suspects that it may be of Portuguese origin as the large cartouche regarding the King of Portugal does not seem to be a fitting item for a Spanish chart. Then the exploration of the West Indies took place and the extant eastern section of the chart being incapable of affording the space to include the new explorations it had to be expanded one way or another.

Thus the western section was planned by distances known to the new world, Nova Scotia and the Lesser Antilles and the overall chart length ascertained. But as the western section would be void in its eastern portion by not showing a complete Mediterranean Sea and Far East, the only methodology available was to utilize both
charts by cutting and joining the eastern section to the larger western section skin. This of course can point to a time limited period when the Eastern Chart section could not be redrawn on the western chart skin to produce a single complete chart. The wind-rose was drawn on the new skin to the same dimensions as the eastern section and using the pre-planned positioning of the West Indies and the America’s the two parts were joined. Unfortunately the persons carrying out this task were not cognizant with the intricacies of joining two wind-roses such that the transfer of wind lines occurred smoothly one to the other. The clumsy setting out of the western wind-rose vertically would ensure it was never a match for the eastern wind-rose and hence the graticule horizontal lines are awry. But the attempt at joining the two by crossing new wind lines over the joint obviously did not and could not work satisfactorily and only a few lines were attempted. Having joined the two sections, by cutting the eastern section carefully to miss any of the excellently drawn vignettes, the next task was simply to copy the part of the chart now to be discarded onto the new skin, including the missing vignettes etc., and then the “geographical” information for the West Indies and the America’s was added forming the complete chart we now study. That of course means that the original cartographer actually worked on both sections of the chart, but as opined did not produce it all.

Thus Ferrar suspects that if Juan de La Cosa was a cartographer the period in Spain from November 1494 until 1496, he may have been used to acquire the eastern section which by using the South African data from 1488 and later was the latest available, and he was then waiting for the western data to be available as he would have known the exploration continued apace. That it did not arrive is attested by the profile drawn of the west coast and it had to be guessed. Therefore it is possible that in the seven months of 1500 when Juan de La Cosa was back in Spain the final data was available and his co-cartographers were able to finish the chart, but of course it could be dated to 1500 and placed under Juan de La Cosa’s name without any comment from outsiders. But did Juan de La Cosa draw anything or was he merely the figurehead of a group of draughtsmen providing them with the raw data? Ferrar thinks that is the more likely scenario (see Ferrar’s article form more detailed analysis and evidence).

Whatever the precise explanation might be for the scale distortions of the Caribbean Sea in Juan de la Cosa’s planisphere, an important point to note is that this mistake was exported to all other charts and planispheres of the early 16th century and was not corrected until 1525.

About 25 years before Ferdinand Magellan presented Charles I of Spain with his plan to reach the Moluccas by sailing west, the Genoese Christopher Columbus had stood before Ferdinand and Isabela of Spain with a proposal for crossing the Atlantic to get to the Indies. The parallelism between the two projects, both of which were necessitated by the ban on Spanish navigation in the Indian Ocean (and based on the still-unproven hypothesis that the Earth was circumnavigable), is remarkable. The circumstances were, however, very different. At the time when Columbus made his case, nobody suspected that the New World existed, and the longitudinal extent of the North Atlantic was unknown. Indeed, the cartography of the Atlantic was limited to its main eastern archipelagos and the western coasts of Europe and Africa, complemented with a sprinkling of conjectural or mythical islands.

Juan de la Cosa’s planisphere bears witness to the state of European geographical knowledge after the late-15th century voyages to the shores of Africa, Asia, and the Americas. Its representation of the New World reflects the expeditions to the Caribbean
Sea carried out by Columbus and other navigators working for Spain; information from Giovanni Caboto’s voyage to the northeast coast of America in the service of the English Crown (1497-98); and the data collected by Pedro Alvares Cabral on his voyage to Brazil (1500). The style of the planisphere is similar to that of contemporary Mediterranean and eastern Atlantic charts, especially those made in Majorca. But while the Old World (Europe, Africa, and the lands around the Indian Ocean, is richly-decorated with flags, coats of arms, human figures, and city vignettes, the continents of the New World are painted a uniform dark green and are free of decoration, apart from the figure of St. Christopher. When comparing the various elements of the planisphere with those of contemporary Majorcan and Portuguese maps, some deficiencies stand out, such as the rather coarse and generalized contours of some coastlines, often exacerbated by the deterioration of the pigments used by the cartographer. This fact, together with the scale error affecting the representation of the Caribbean Sea, whose dimensions are greatly exaggerated relative to the Old World, tends to indicate that Spanish cartography of the Atlantic was still in its early stages.

Although the planisphere contains the oldest known representation of the Americas, the notion that they constituted new continents, distinct from Asia, was still foreign to the cartographer and his contemporaries. Indeed, Columbus’s conviction of having arrived in China and Japan is well documented, as is his unrelenting search for a passage to the East. Two significant details of the planisphere seem to suggest that the sought-after Indies were close at hand: the label Oriente, discreetly placed below South America, and the figure of St. Christopher at the western end of the planisphere. According to Cerezo Martinez, the figure of the saint is more than a simple allusion to Columbus’s project – it also marks the region where the passage to the Indies ought to be sought.

But this conflation of the New World with Asia is not reflected in Juan de la Cosa’s planisphere, nor, for that matter, in any other known nautical charts. Insofar as they functioned as sailing instruments, charts were necessarily based on navigational information collected by pilots, and competing cosmographical hypotheses generally took a back seat in their construction.

But the historical importance of Juan de la Cosa’s planisphere is not limited to the representation of the Caribbean Sea and the north coast of South America. As has been mentioned above, it also shows an unmistakable sign of Pedro Alvares Cabral’s arrival in Brazil with the legend *isla descubierta por Portugal*, written next to a large rectangular island off the mainland of South America. We do not know which island this is, or how information about Cabral’s voyage was transmitted to Spain. It seems certain, however, that the whole representation to the south of the northeast tip of South America, where a legend describes Vicente Yáñez Pinzón’s arrival in 1500, is either conjectural or based on oral testimonies.

When it comes to late-15th century maritime explorations, Cosa’s representation of Africa and the Indian Ocean is also noteworthy. An inscription east of the Indus River (in present-day Pakistan), reading "tierra descubierta por el Rey don Manuel Rey de Portugal," refers to Vasco da Gama’s arrival on the western coast of India in 1498. Nevertheless, the depiction of the Indian Ocean and the east coast of Africa does not seem to incorporate much information collected by the Portuguese in the region and is instead strongly influenced by the Ptolemaic cartographic tradition. This is not the case for the west coast
of Africa, which was presumably drawn using Portuguese cartographic sources, since Spanish navigation in the area had been prohibited by the Treaty of Tordesillas.

Although it was produced more than a decade later, this planisphere also contains one of the earliest cartographic records of the explorations carried out by Diogo Cão and Bartolomeu Dias between 1482 and 1488, only preceded by the maps of Henricus Martellus (1489, #256) and Martin Behaim’s Globe (1492, #258). Working in a larger format and undoubtedly equipped with more information, Juan de la Cosa was able to depict the West African coast with greater accuracy and detail than either of his predecessors.

Location: Museo Naval, Madrid, Spain

Size: 375 x 72 inches (960 x 183 cm)

Bibliography:
Alvarez, Aldo, “Geomagnetism and the Cartography of Juan de la Cosa: A New Perspective on the Greater Antilles in the Age of Discovery”.
*Brotton, J., Great Maps, pp. 76-79.
Cummings, W.P., The Southeast in Early Maps, p. 64.
Cummings, W.P., Exploration of North America, pp. 53ff, Figures 52, 53.
*Ferrar, Michael, “ChJLC1; The 1500AD La Cosa chart analysed and historically detailed”, March 2018.
*Fite, E., and Freeman, A., A Book of Old Maps . . . , p. 11, no. 4.
Ganong, W.F., Crucial Maps in the Early Cartography . . . , pp. 8-43; 142-175.
*Goss, J., The Mapmakers Art, pp. 72-73, Plate 3.16.
Hoffman, B. G., Cabot to Cartier (Toronto, 1961), pp. 87-97.
Klep, Egon, America in maps dating from 1500 to 1856 (New York, 1976), no. 1.
*Lelewel, Joachim, Geographie du Moyen Age
*Nebenzahl, K., Atlas of Columbus, pp. 30-33, Plate 10.
Nordenskiöld, A.E., *Periplus*, p. 149, Plates XLIII, XLIV.
Nunn, G., *The La Cosa Map and the Cabot Voyages*.
Skelton, R. A., *Looking at an Early Map*.
*Wolff, H., America, pp. 44-45.

*illustrated*
Juan de la Cosa Portolan World Chart

Museo Naval, Madrid, Spain
Juan de la Cosa, World Map, Spain, dated 1500.
Africa based on the la Cosa map by Joachim Lelewel in his Geographie du Moyen Age
Queen of Sheba on the Arabian peninsula
Tower of Babylon shaped like a minaret
In the north of Asia there is a figure with several faces on their head and hands enclosed in a kind of a niche bearing the inscription “Idol of Idolators”. It is an image of the idol worshiped in the city of Castrema.
Gold mining in Africa
Prester John in Africa
The birth of Jesus in Bethlehem

The “Three Wise Men” on their way to visit the birth of Christ