

**TITLE:** *The Christopher Columbus Chart*

**DATE:** 1492-1500

**AUTHOR:** Christopher Columbus

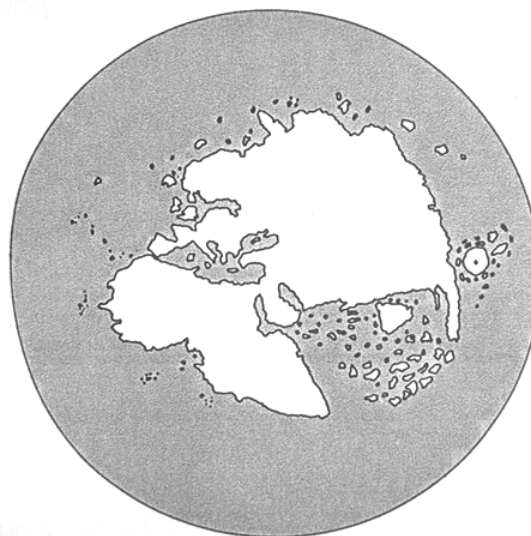
**DESCRIPTION:** In 1924, Charles de La Ronciere, the renowned French historian of exploration and cartography, attributed to Christopher Columbus a *portolan* [nautical] sea chart that has been discussed and debated ever since. Although Columbus and his brother Bartholomew were accomplished mapmakers, scholars have been frustrated in their attempts to confirm who actually created this unsigned document, originally acquired by the French national library in the 19<sup>th</sup> century.

However, Columbus' career as a mapmaker rests on flimsy evidence, but not that of his brother Bartholomew. Christopher Columbus probably did not learn this skill in Genoa, where the once-thriving map trade had fallen on hard times, for in 1472 he was describing himself as a *lanerius* [wool-worker]. In Lisbon he may have sold maps as a dealer, and, as a sailor, he naturally was familiar with the use of maps. He may have commissioned maps to be made and added information from his own experience. In his notes to d'Ailly's *Imago Mundi* (see #238), he makes several references to "our maps," but these could just as well be maps in his possession as maps he had made himself. As Gaetano Ferro has pointed out, the only surviving map that can be securely assigned to Columbus is his sketch map of Haiti (#304).

This map, also known as the *Paris Map*, is unsigned and was acquired by the Bibliotheque Nationale library in 1848 from an unknown source. The main part of the large sheet of parchment is taken up with a sea chart of the known world, from the Congo River in Africa, *Poderoso F.*, in the southwest to the *Tanais [Don] River* north of the Black Sea to the northeast. It also shows Iceland and the Red Sea. In the upper left-hand corner is a circular world map, centering on Jerusalem, surrounded by the celestial spheres, with two texts taken from Pierre d'Ailly describing the composition of the universe. The celestial rings symbolize the geocentric concept of the universe, commonly accepted at that time. The small (20 cm in diameter, or eight inches) world map displays some 250 place-names, and unlike the sea chart, shows all of Africa, including the results of Dias' voyage - the discovery of the Cape of Good Hope and the premise that one could sail around Africa into the Indian Ocean. These details indicate that the map was drawn after 1488 and presumably before 1493. The *mappamundi* also shows *Paradise* as an island east of the Asian continent. The place-names and inscriptions are in Latin.

In the North Atlantic, the island *Frixlanda* is described in the Latin inscription near it as *an island full of mountains, snow and ice, with an ever severe climate, called Iceland in the local language, and Thile in Latin. There, at a great distance from the British Island, on account of the cold no other food is to be had than frozen fish. The islanders exchange them, in guise of money, for wheat and flour or other necessities that the English bring to them annually. It is a rugged and wild population, from what the English say, and it lives in poor subterranean abodes during the six months when the sea is frozen.*

It is most unusual to have a practical navigator's chart juxtaposed with a cosmographical plan. One of the accompanying lengthy notes in Latin announces that the



world map, or *mappamundi* although drawn on a plane, should be considered spherical. Displaying the earth in this manner underscores the transitional character of the map from medieval to Renaissance thinking.

The map of the world representing the position of the earth, according to the Ptolemaic system, at the center of the universe, surrounded by the ocean and the nine concentric circles of the planets and stars, is in keeping with the well-known views of Columbus. The two long Latin inscriptions on either side of this small map of the world are quotations from Cardinal D'Ailly's *Tractatus de imagine mundi*, which had then been recently published for the first time at Louvain in 1483. Columbus' copy of this celebrated treatise, with many marginal annotations in his own handwriting, which he probably carried with him on his first voyage, is still preserved in the Columbian Library at Seville. This circular *mappamundi* is also noteworthy for showing southern and eastern Africa more accurately than does either the *Martellus* map or the *Behaim* globe (#256 and #258). It implies that information is included from Vasco da Gama, the Portuguese navigator who discovered a route to India, even though he did not return to Europe until 1499. The treatment of the west, south, and east coasts of Africa suggests the map's Portuguese origin. Latin is used for the numerous lengthy annotations. The 250 place-names, however, appear in their Portuguese form, and many Portuguese-controlled areas display the Lusitanian flag. A reference at the Cape Verde Islands mentions their discovery by the Genoese, an intriguing fact considering Columbus' birthplace.

In the north of Europe is the peninsula *Groenlant*, bearing the legend *Hic habitat populus monstuosus* [here monstrous people live]. On the east coast of Asia appear the islands visited by the mythical Irish saint, Brendan, who sailed out into the Atlantic in search of a land "secret, hidden, and secure," and came after many weeks to an island of flame and smoke, the entrance to hell: *insule ignibus plene et demoniis injernalibus* [Isle full of fires and demons from hell]. Escaping thence he visited an island filled with angelic birds, *paradisi avium*, and then one on which there was a monastery founded by St. Alben, *insula familie S. Albe*, and at length came to a delightful island with sun-warmed shores, *insula deliciarum*. Not far from these mythical islands may be seen the terrestrial Paradise, *Paradisi terrestri*, surrounded by mountains of diamonds.

Near the northwest corner of the map, far west of Ireland, there is a faint inscription as follows: *Hec Septem Civitatum insula vocatur, nunc Portugalensium colonia ejecta, ut gromite citantur Hispanorum, in qua reperiri inter arenas argentum perhibetur* [Here is the island called the Seven Cities, a colony now peopled by Portuguese: it is said from a report by Spanish sailors that silver is found there in the sand]. This well known medieval myth of the *Island of the Seven Cities* is explained in the following legend on Behaim's 1492 globe (#258). "In the year 734 of Christ, when the whole of Spain had been won by the heathen [Moors] of Africa, the above island *Antilia*, called *Septe citade* [Seven Cities] was inhabited by an archbishop from Porto in Portugal, with six other bishops, and other Christians, men and women, who had fled thither from Spain, by ship, together with their cattle, belongings, and goods. 1414 a ship from Spain got nighest it without being endangered." The island appears on many later maps.

De la Ronciere presented this map with great enthusiasm at a meeting of the International Congress of Geographers in Cairo in April 1925. In support of his thesis, he cited the prominent vignette for the city of Genoa and a reference to the Genoese discoverer of the Cape Verde Islands. The famous map historian Marcel Destombes agrees that the script on the map is Genoese. De la Ronciere says that the map also reveals the preoccupations of a commercial traveler, such as Columbus was, showing where wheat

could be grown and where it needed to be imported, and citing the availability of other trade goods, such as ostrich plumes, cotton, sugar, pepper, civet, and parrots. The maker of the map also displays much interest in places where gold might be found. The *mappamundi* makes it clear that the voyage to the Indies going around Africa, though feasible, was very long, a view reinforced by an inscription describing the three-year voyage of Solomon's fleet, going and returning from Ophir. This subject had greatly interested Columbus and was mentioned in a note he wrote in his copy of d'Ailly's book. De la Ronciere also points to the *Island of the Seven Cities*, the *Antilles*, accompanied on the sea chart by a description of an accidental encounter there; the cabin boys of a Spanish ship, scrubbing their kitchen utensils on the beach, found silver in the sand. De la Ronciere thinks that this story inspired Columbus, and there is evidence from his journal that he had on board a map that showed the *Antilles*, one of the goals of his expedition. Also important to a would-be explorer, the map makes it clear that the earth is habitable and the sea navigable in the equatorial and polar zones. Finally, de la Ronciere refers to Columbus' notes in d'Ailly's book pointing specifically to "our maps on paper where there is a sphere." Although sea atlases sometimes contained world maps, the configuration of the "Columbus map" with its round world map on the same sheet, is unusual. Summing up, de la Ronciere says, "A more or less felicitous mishmash of archaic terms and modern nomenclature, of theory and reality, of established facts and discoveries assumed before they happened, this strange model is that of the maps of Christopher Columbus."

This map also shows an island in the extreme west of the Atlantic. No stylized pair of kidney beans like the *Ille de Brazil* (although the map employs a similar device just east of Iceland), but a tripartite configuration, drawn with an attempt at realism and accompanied by an almost obliterated legend: "Here is the island called of the Seven Cities, a colony now peopled by Portugal; it is said from a report by Spanish ship-boys that silver is found there in the sand." De la Ronciere, who deciphered the text, commented that in that same location, the *Cantino* map of 1502 (#306) placed a wooded island discovered by Corte Real and named by him *Terra del Rey de Portugall*. Fifty years after De la Ronciere, the historian D.B. Quinn argued that the reference may point to some kind of Portuguese discovery of land northwest of the Azores prior to 1490

More recently Monique Pelletier reviewed the evidence for the "Columbus map," confirming that it is in fact a showcase for many of Columbus' ideas. She describes it as a fine presentation copy, perhaps designed for unveiling before the Spanish monarchs at the final, and victorious, hearing at Santa Fe. It is difficult, however, to explain away the absence of *Cipangu* [Japan] on the world map, since that island was key to Columbus' route. Instead, several islands identified with St. Brendan float vaguely in the ocean northeast of Asia. All we can conclude is that St. Brendan's adventures, usually located in the North Atlantic, have drifted to the North Pacific, perhaps another piece of evidence of the "small sea between Spain and India." There is, however, no hard evidence to link it with Columbus, either as author or owner.

The sea chart displays a classic delineation of the greater Mediterranean area, supplemented by the Atlantic coast stretching from southern Scandinavia to the mouth of the Congo River (named *Rio Poderoso* by Diogo Cao in 1484). It has particularly rich nomenclature down the African coast, where Columbus is thought to have made at least one voyage with the Portuguese. To the east, the Black Sea and Red Sea are included. Westward is a series of islands some real, some imaginary, from the Arctic to the Gulf of Guinea. Below the compass rose in the North Atlantic lie three islands, *Isles of the Seven Cities*. This was the Portuguese name for the islands that other Europeans called *Antilia*.

The surviving remains of Columbus' library include his revelatory marginal notes, particularly in his copy of Cardinal d'Ailly's cosmography, *Imago Mundi*. Monique de La Ronciere, having researched these notes, pointed out that Columbus referred to his "four charts on paper, all of which also contain a sphere." She also noted an error in the inscription on this chart, next to the Red Sea, which is identical to an error in one of Columbus' marginal notes.

The Spanish flag flying over Granada implies the map was completed after January 1492, when Spain captured that city from the Moors. There was no attempt to show the new discoveries reported from 1493 onward, as recorded on the *Juan de La Cosa planisphere* of 1500 (#305) and those which followed. This fact suggests a date for this map no later than the early 1490s.

It appears questionable that a chart with this degree of professional finish and decoration, heightened with gold and including elaborate vignettes of selected major European cities, was actually executed by Christopher Columbus or his brother, Bartholomew. The style and emphasis do not appear to support the assertion. Certainly it could have been commissioned by Columbus, and his Portuguese contacts could have provided the new information, which had to have originated in Lisbon. The chart, with its *mappamundi* inset, remains a remarkable document of the discovery period. Although the attribution to the Admiral by the French scholars has merit, it has never been confirmed.

The elongated part of the parchment shows a small, circular *mappamundi* with Jerusalem in the middle, surrounded by heavenly geocentric rings symbolizing the concept of the universe.

The authenticity of Columbus' experiences on his Iceland voyage, which are known to us only through the biography written by his son Ferdinand, has been the subject of much controversy. The discussion grew more heated in 1924, when Charles de la Ronciere introduced to the world this so-called *Paris Map* and stoutly declared that Columbus' information about Iceland was only hearsay garnered in Bristol, where Columbus had also been. De la Ronciere was nevertheless certain that the map must have been made for "the Catholic Kings" in 1491 by either Christopher Columbus or his brother Bartholomew, who was a skilled mapmaker, and that it provided significant clues to Columbus' geographical knowledge on the eve of his first trans-Atlantic voyage.

Kenneth Nebenzahl recently gave it as his opinion that this map may just have been commissioned by Christopher Columbus; he finds it too professional to be the work of either of the Columbus brothers. By contrast, the French map scholar Monique Pelletier believes that everything about the map points to one or the other of the Columbus brothers, but disagrees with De la Ronciere's assertion that it had been made to impress Ferdinand and Isabella. In yet another recent analysis, the English map expert and historian Helen Wallis supports D.B. Quinn's theory that Bartholomew Columbus began the map in conjunction with his 1488-89 fundraising trip to England. Wallis affirms that the Ptolemy-based legends on the map prove its close connection with Christopher Columbus, and she believes that the map may also provide evidence that Columbus went to Iceland. As to the map's date, she points out that since it depicts a Spanish flag flying over Granada, it must have been completed after the expulsion of the Moors on January 2, 1492, but before Columbus' return from his 1492 discoveries, of which nothing is shown.

It is fortunate that exactly who drew this map is less important in the present context than what the map may reveal about contemporary knowledge of the northwestern Atlantic-knowledge considered worth putting down on vellum. It is equally fortunate that there are useful guidelines for historians trying to extract information from old maps. One



is to heed R. A. Skelton, who warned against assuming that a cartographer was cognizant of all previous work. Another is to look for precedents just the same. A third is to recognize that firsthand reports were tempered to varying degrees by cartographical theories, and that the lack of reliable surveying instruments made it difficult to assign accurate location or relative size to an area, even when its existence was vouched for. A fourth guideline is to estimate, if possible, how much information would have been available to an open-minded cartographer from any source, and to see if the map under study corroborates evidence from other sources.



*Detail showing the European peninsula labeled Grænlant*

The historian Kirsten Seaver believes this *Paris* map represents knowledge that sailors and fishermen familiar with the Bristol-Galway-Iceland route could have shared with Columbus; that there are known cartographical precedents for the map's delineations; and that those precedents are based on actual experience. She also thinks that Wallis is right in considering that this map is proof that Columbus himself was in Iceland and relayed in that map both what he saw himself and what he heard from English crew members on the way. The kind of voyage he described would have been a rather common one by 1477.

Exclusive of a separate *mappamundi*, the upper left quarter of the map depicts Norway and the British Isles, with many place names shown in Ireland. The North Atlantic is studded with smallish islands of random shape and placement, from the Irish Sea all the way north to Iceland. The North Atlantic is full of islands, as 15<sup>th</sup> century mariners and cartographers would have known. West of Norway, the map shows two islands. The nearer and smaller one, unnamed, was perhaps intended to represent *Hâlogaland*, a well-known Norwegian destination for codfish merchants, which even then was often thought of as an island. The next island westward is large, deeply indented by fjords and bays, and features three big ecclesiastical buildings that probably represent Skálholt and Holar cathedrals and a monastery. Although this island, too, is unnamed, it is clearly Iceland, which makes a fairly large island just below, *Frixlandia*.

De la Ronciere thought Columbus had confused the location of the Faroes with that of Iceland and had compounded the confusion by believing that Ptolemy's island of *Tile* was "the one called by the moderns Frislandia." This muddle supposedly accounts for a Latin inscription near *Frixlandia*. The legend refers to

an island full of mountains, stone and ice, with an ever severe climate, called Iceland in the local language and Tile in Latin. There, at a great distance from the British Islands, on account of the cold, no other food is to be had than frozen

fish. The islanders exchange them, in guise of money, for wheat and flour or other necessities that the English bring them annually. It is a rugged and wild population, from what the English say, and it lives in poor subterranean abodes during the six months when the sea is frozen.

As mentioned, the legends on this are taken from Pierre d'Ailly's *Imago Mundi* (Louvain, 1483, see #238), an annotated copy of which was in Columbus' library. The passage just quoted, so reminiscent of Adam of Bremen's mid-11<sup>th</sup> century effort to describe how the Icelanders lived, also shows an earnest attempt to relay information from an English source about this strange place. Several of Columbus's remarks highlight the narrowness of the ocean between Spain and India, an idea that Pierre d'Ailly had found in Bacon's *Opus Maius*. The English philosopher seemed to suggest that the extension of land from Europe to the East was much greater than Ptolemy's estimate – and therefore the complementary extension of waters much smaller. Columbus, in fact, explicitly rejected Ptolemy's estimate of the land distance from West to East, in favor of the longer estimate of Marinus of Tyre (which the same Ptolemy had referred to in the *Geography*, #119), that appeared more consistent with the cartographic representations by Toscanelli (#252), Behaim (#258), and Martellus (#256). Furthermore, Pierre d'Ailly, again following Bacon, listed some different opinions on the correspondence among land miles and equatorial degrees, proposing the estimate by the 10<sup>th</sup> century Arabic astronomer Alfraganus as the best one: 56 2/3 miles per degree. Columbus, agreeing with that, reiterated in the margins of his *Imago Mundi* that "any equatorial degree actually corresponds to 56 2/3 miles." Considering that the currently-accepted length of an equatorial degree is about 60 land miles, Columbus' estimate of the earth's diameter was much too small. This, combined with his rejection of Ptolemy's measurements in favor of those of Marinus of Tyre, made him come up with what has been referred to as "perhaps the smallest estimate of the earth's size ever made."

Columbus' copy of d'Ailly's treatise included a series of other short essays by the same French cardinal and his pupil Jean Gerson, on miscellaneous questions of cosmography, astrology, theology, history, and prophecy. One of those texts, *Treatise on the concordance between astronomical truth and theology*, included some calculations concerning the ages of the world and forecasted the *Apocalypse* for a date that Columbus identified some 155 years after his reading of the book.

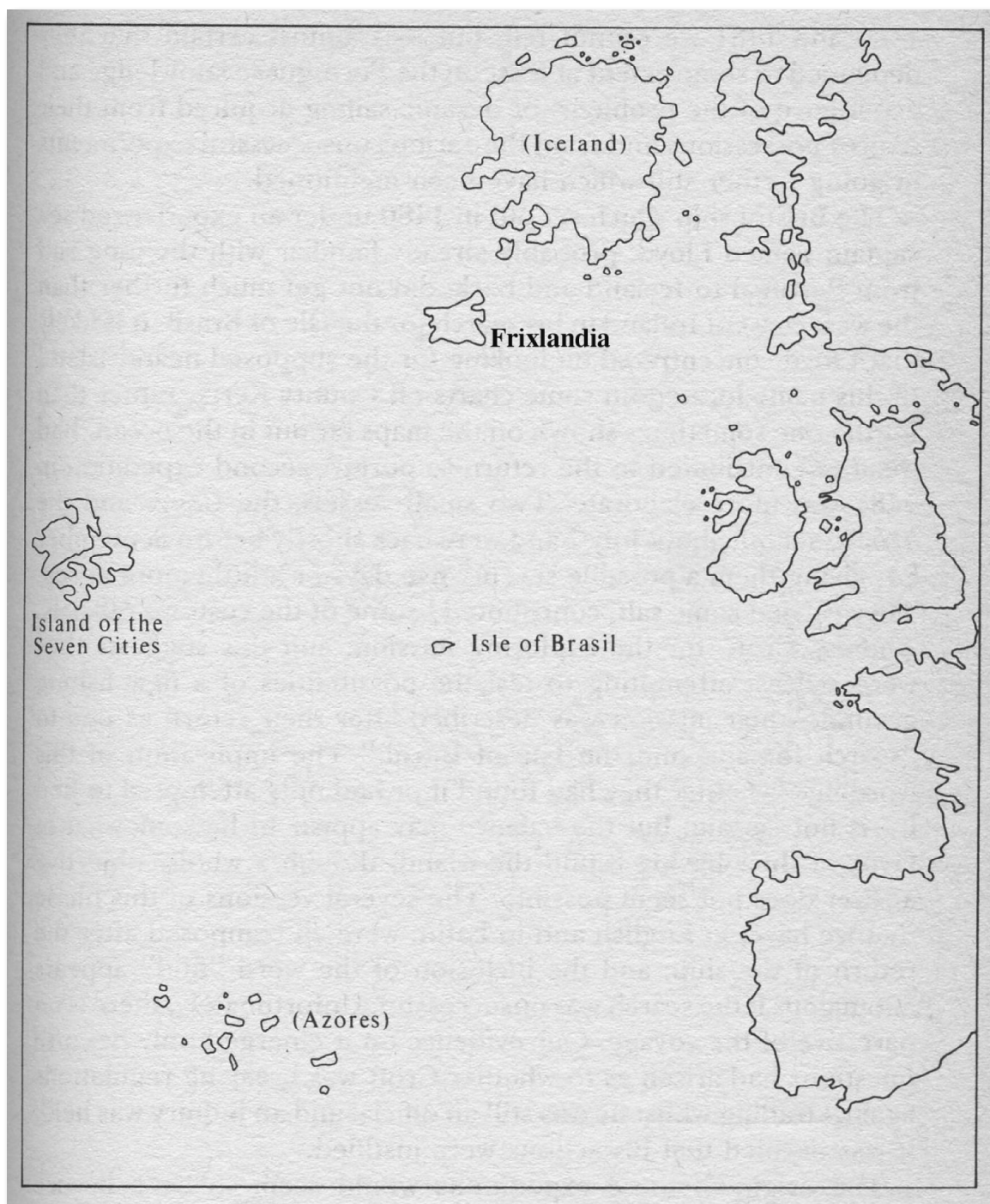
D'Ailly's interests in eschatology also stemmed from Roger Bacon, who had applied mathematical principles to preexisting theories on the ages of the world and its end. Columbus' interest in the subject is evident from several other references in his writings. Among them is a mention, included in his *Book of Prophecies*, of the 12<sup>th</sup> century millenarist Joachim of Fiore, who expounded on the eschatological messianic figure of the *Last World Emperor*, the ruler in charge of defeating the *Antichrist*. According to a later Spanish interpretation of Joachim's prophecies, the last emperor was to come from Spain, and Columbus might have identified this figure with Ferdinand of Aragon. This idea, indeed, appeared consistent with the aforementioned vision of a westward movement in the evolution of humankind. History's great civilizations have been following a line from Asia to the Middle East, to Egypt, Greece, Rome, Gaul and ultimately the Spanish empire.

Columbus' own notes suggest that he spent no time ashore in Iceland, for he has no information of his own about the Icelanders' "poor subterranean abodes" and diet of "frozen fish," while he juxtaposes personal experience with d'Ailly's hearsay information concerning the frozen sea.

In the month of February 1477, I sailed one hundred leagues beyond the island of Tile, whose northern part is in latitude 73 degrees N. and not 65 degrees as some affirm, nor does it lie upon the meridian where Ptolemy says the West begins, but much farther west. And to this island, which is as big as England, the English come with their wares, especially from Bristol. When I was there, the sea was not frozen, but the tides were so great that in some places they rose twenty-six fathoms, and fell as much.

Despite the flawed references to latitude and the note about the huge tides, both Columbus' account and the map legend above *Frixlandia* (obviously intended to describe the biggest island) show earnest attempts to pass on real information. So does Columbus' reference to the ship's going "one hundred leagues beyond" Iceland (presumably by the captain's will and not that of Columbus), for it fits with the picture Thorsteinsson has provided of the Englishmen's relentless westward push in search of fish.

The northernmost parts of Iceland, including the large fishing banks at Bardargrunn and Deildargrunn off the West Fjords, practically touch the Arctic Circle, so Columbus could truthfully boast of having gone very far north. These banks may well have been where Columbus' skipper headed, not straight north from northern Iceland as assumed by Samuel Eliot Morison, among others. Columbus claimed only to have gone beyond *Tile*. Although "one hundred leagues" probably was a figure of speech denoting a great distance, he may conceivably have gone far enough west from the West Fjords to catch sight of the east coast of Greenland, some 287 kilometers away at the narrowest part of the strait and, in clear weather, visible from a third of the way out from Snæfellsnes. Columbus' "league" represented 3.18 nautical miles of 2,000 yards. If his statement is taken literally, the ship would have found itself fishing well down along the Greenland east coast, whose general aspect beyond a wide belt of sea ice would certainly have discouraged fantasies about a lush and spice-laden Asia. It is possible that Columbus got a glimpse of the islands near Ammassalik that Eirik the Red called *Gunnbjarnarskerries*, but not of Greenland's mainland, since those waters are often shrouded in fog. Or he may just have heard tell of islands to the west of Iceland.



If this map is any guide to Columbus' pre-1492 geographical knowledge of the far north, he did not associate land to the west of Iceland with a named Greenland. Way to the east, however, near *Tartary* in the thick of Asia, the map has a peninsula named *Grænlant*. De la Ronciere was mostly intrigued by its disassociation from Norway (with which other 15<sup>th</sup> century maps connected it), and by the adjacent inscription "*Hie habitant populus monstruosus*," which he thought might imply knowledge of the supposedly defunct

Greenlanders' dreadful fate. To Seaver, the most interesting aspect of this *Grænland* is that the name is spelled more or less in the Norse vernacular, rather than in a Latinate form.

While *Frixlandia* on this map may represent a coast glimpsed by Columbus when voyaging "one hundred leagues beyond the Island of Tile," it may also just have been the cartographer's solution to a problem posed by an earlier map locating a *Fixlanda* so directly west of Ireland that it seemed an unlikely Iceland to a good navigator with personal experience of the route. At least one such map exists, a *portolano*, or medieval navigational chart, belonging to the Biblioteca Ambrosiana in Milan. Said to be of Catalan origin, about a decade, 1480, before this *Paris* map. If the date assigned to it is correct, we must also consider the chart's relevance to the Bristol *Isle of Brazil* ventures of 1480 and 1481, for just like this *Paris* map, the Catalan chart shows access to English information. This is hardly surprising, since the trade between Spain and England in this period was almost entirely in the hands of Spaniards and Englishmen, who were often working together.

As discussed by Irene Malfatto in her article "Cosmography and Transatlantic Voyages", *Encyclopedia of the History of Science* (June 2020), the eschatological element is a fundamental component of Christopher Columbus' perception of the universe. The sources behind the Admiral's vision of the world, rooted in Medieval and Christian cosmography, saw the earth as the stage for the history of humanity, from creation to doomsday; as much as the approaching apocalypse played a role, so did the origin of mankind. During his third voyage, indeed, Columbus believed that he reached the surroundings of the earthly *Paradise*. According to medieval authorities and *mappaemundi*, the *Garden of Eden* was located on an island at the extreme East of the world, where four large rivers sprung and filled a lake with their waters. Columbus found a similar geographical condition south of the island of Trinidad, where the Gulf of Paria was filled by the waters of the Orinoco delta, divided into four waterways. According to the Admiral, the noise of those waters was so loud that they should have originated in some large landmass to the south. The intuition of a hitherto unknown continent, however, gave ultimately way to an idea that sounded somewhat more comforting: that land was the earthly *Paradise*. "I would say that if this river does not spring from the earthly *Paradise* it comes from a vast land lying to the south, of which we have hitherto had no reports. But I am firmly convinced that the earthly *Paradise* truly lies here, and I rely on the authorities and arguments that I have cited" (Columbus, *The Four Voyages*, 224). Again, Columbus managed to combine his own perception with the background of medieval cosmographic sources.

What is more, the opinion of the traditional authorities could provide him with an explanation of a peculiar phenomenon that occurred during the journey: a sudden shift of the compass in the middle of the Atlantic waters – that was actually due to the inconsistency of the physical and magnetic North Pole of the planet. Bolstered by the traditional representation of the *Garden of Eden* as situated on top of a mountain (conveyed, among others, by Pierre d'Ailly), Columbus proceeded to explain how the earth must not have been perfectly spherical, but instead in the shape of a pear, with a bump corresponding to the location of *Paradise*. The practicalities of early modern transatlantic navigation and scriptural knowledge of the late medieval world remained fundamentally intertwined.

**LOCATION:** Bibliothèque Nationale de France (CPL GE AA 562 RES)

**SIZE:** 70 x 110 cm (28 x 44 inches); *mappamundi* 20 cm/8 inches diameter

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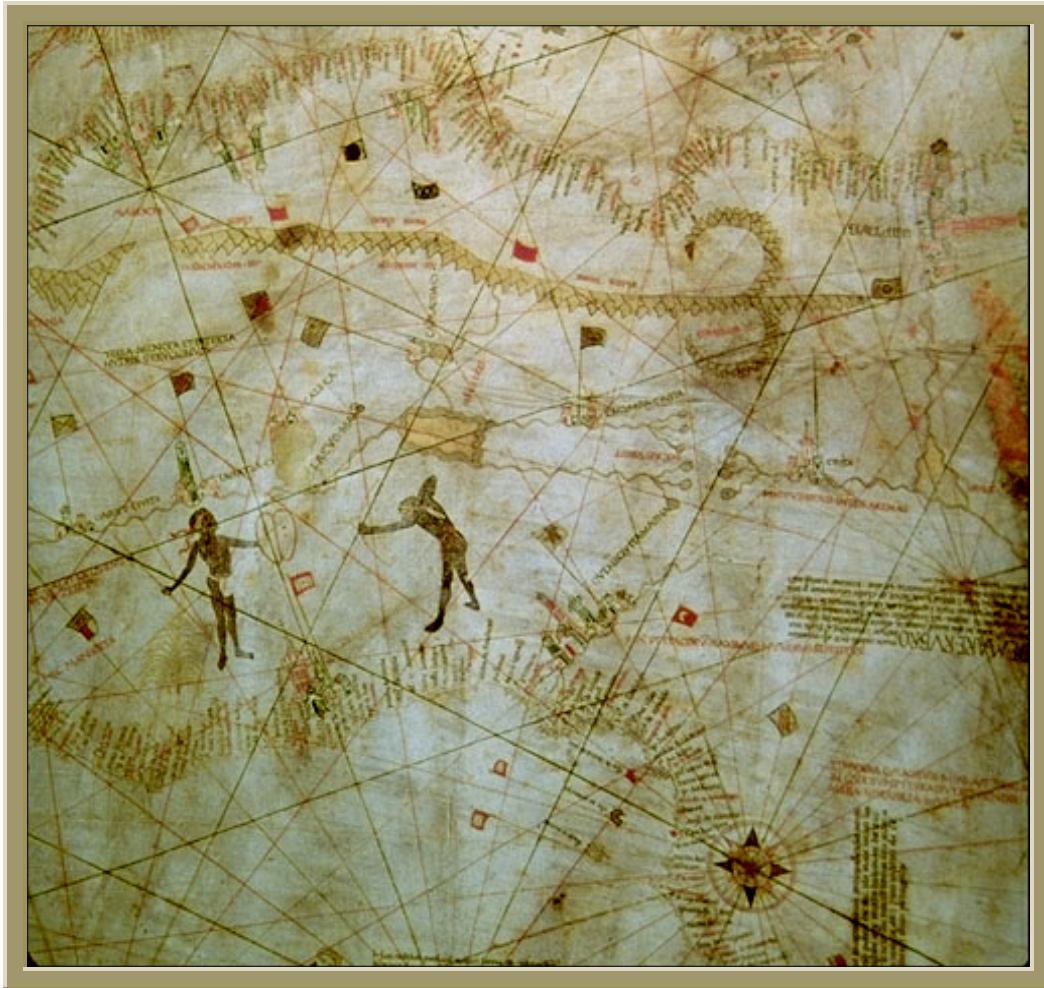
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\*illustrated









*Detailed section of North Africa*





Detailed view of the appended mappamundi

