

Historia marítima y de la navegación en el Caribe e Iberoamérica I

Especialización en Patrimonio Cultural Sumergido

Cohorte 2019

Part 2

Into the Atlantic

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Bogotá, April 2019



Born in Genoa around 1451, Cristobal Colón left for Lisbon in 1476, to join his brother Bartolomeo, working there as cartographer. Columbus settled as a merchant and in 1479 he married the daughter of Bartolomeo Perestrello, a rich merchant and land owner, but also a retired explorer who had discovered the Madeira archipelago for the Portuguese crown.

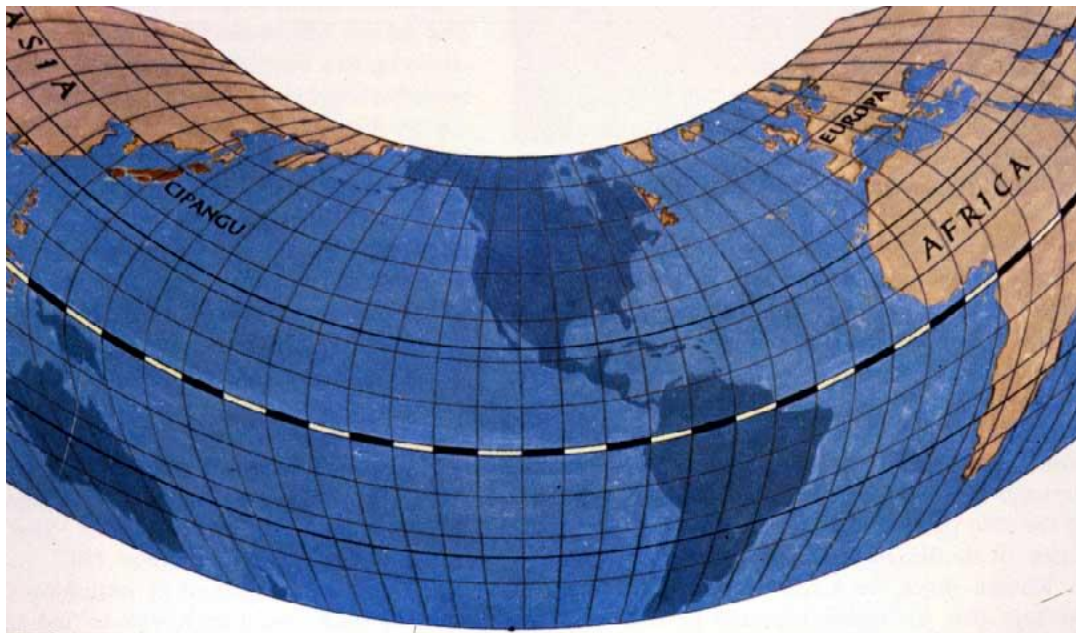
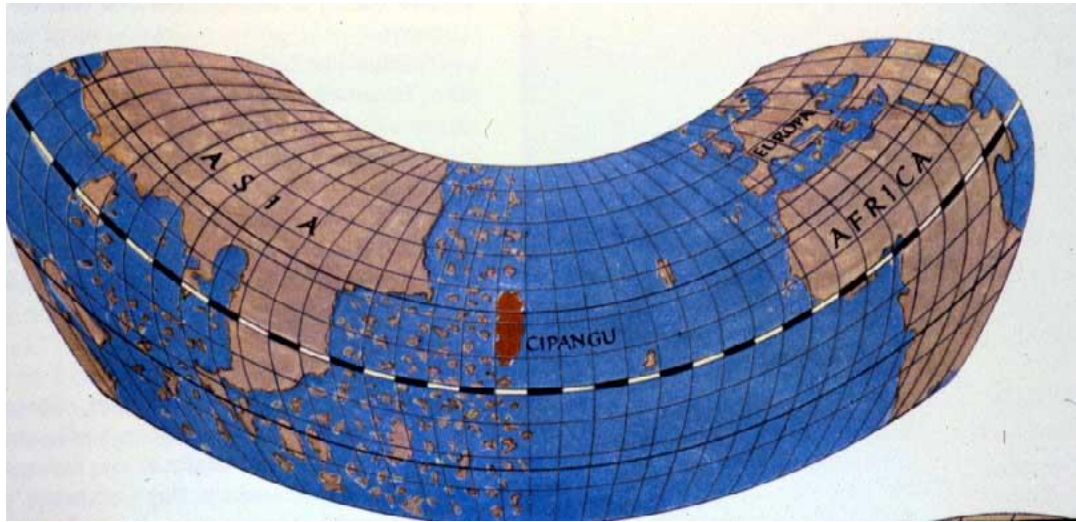


From 1477 on, he sailed with the Portuguese to Iceland and Guinea and became acquainted with many explorers' theories, including Toscanelli's calculations of the size of the Earth.



In 1484 Christopher Columbus presented his proposal to reach the Indies by sailing westward to King John II of Portugal (1455-1495).





The idea had not come to him out of the blue.

Behind it laid several sources of inspiration: certainly the Portuguese voyages, but also the stories of Phoenician mariners who ventured into the waters along the African coast.

Ptolemy (AD 90-168) wrote the *Almagest* around AD 150, becoming the best studied and most important scientist of the whole Roman period.

His *Geography* and his *Tetrabiblos* (four books of astrology) are equally important.

In *Geography* Ptolemy adopted a degree of 90 Km after Posidonius (135-51 BC) and Strabo (64 BC-AD 25). He sadly missed Eratosthenes' (c.276-c.175 BC) work.

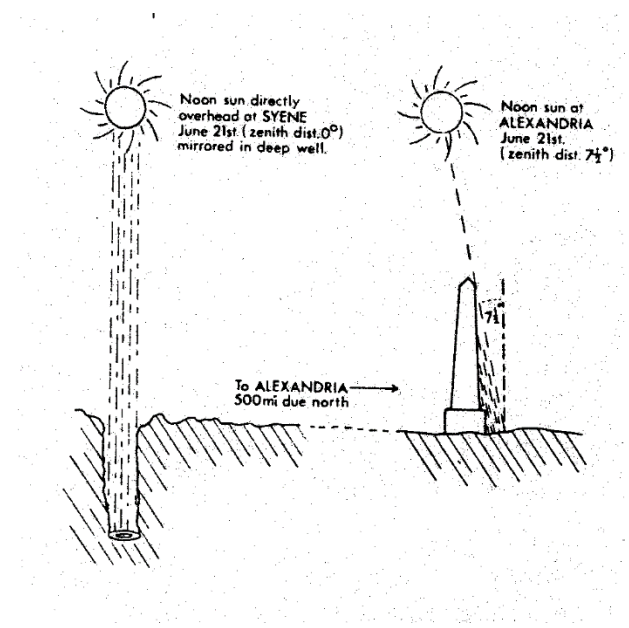




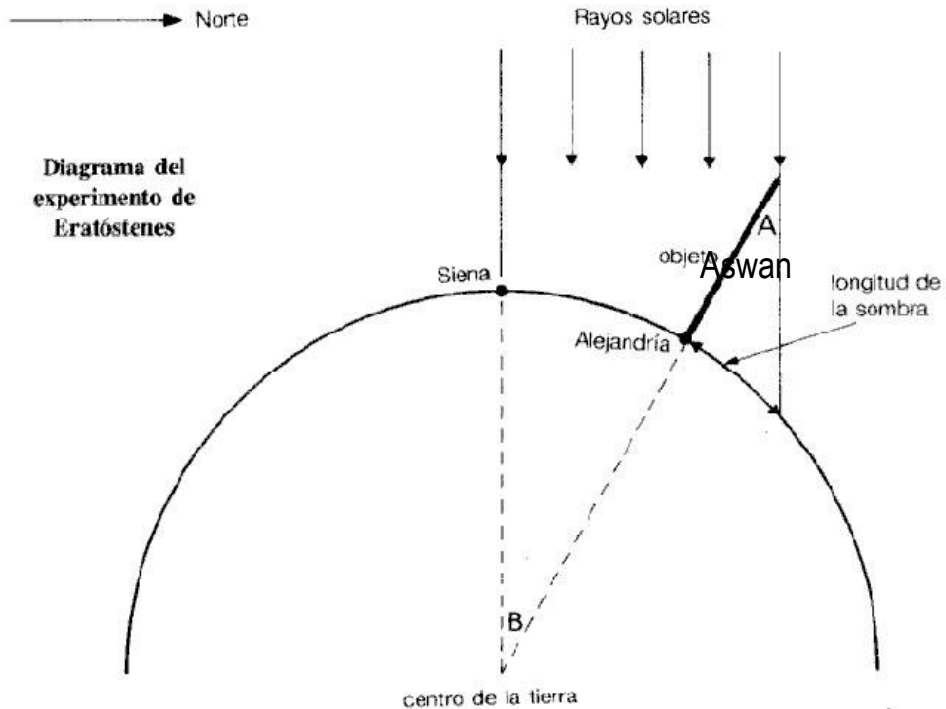
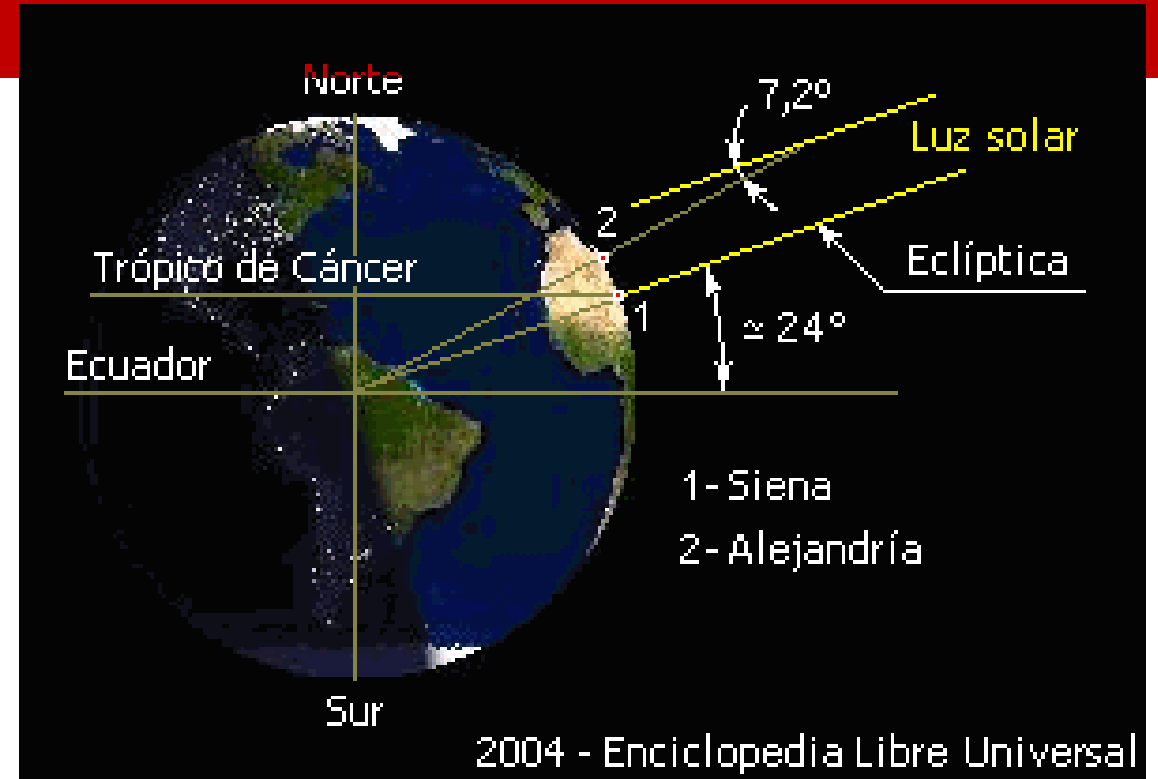
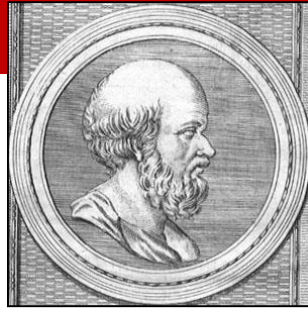
Upon learning that the sun fell straight in a pit at Aswan (Siene) on June 21, Eratosthenes measured the height and the shadow of an obelisk in Alexandria on that same day at noon and calculated the exact angular distance between the two cities as $7^{\circ}14'$.

Then he went on estimating the length of a degree: the distance between the two cities was 10 days by camel. Since camels travel 50 *stadia* per day, he found that distance to be 5,000 *stadia*.

When we consider the value of 607 imperial feet (185 m) for a stadium, we get a degree of 128 km (15% more than the real 111.1Km).



Eratosthenes
(276BC-194BC)



$5,000 \text{ stadia} \times 185 \text{ m} = 925 \text{ Km}$ (actually 845 Km, or 91%)

$A=B=1/50 \text{ of } 360^\circ \rightarrow \text{Earth Diameter} = 50 \times 925 \text{ Km} = 46,250 \text{ Km}$ (16% over the real value);

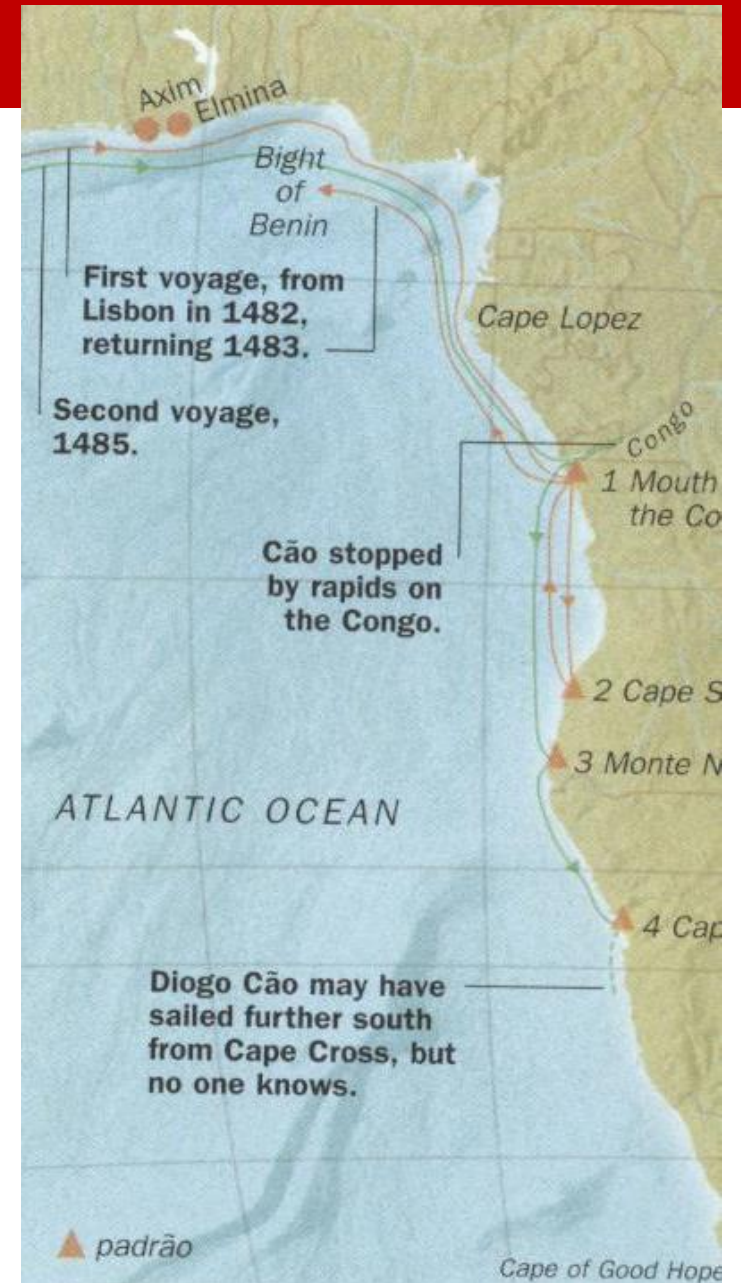
$1^\circ = 128 \text{ Km}$ (real value = 111.1 Km)

The Portuguese king was busy with his own expansion overseas, which had begun in 1415.



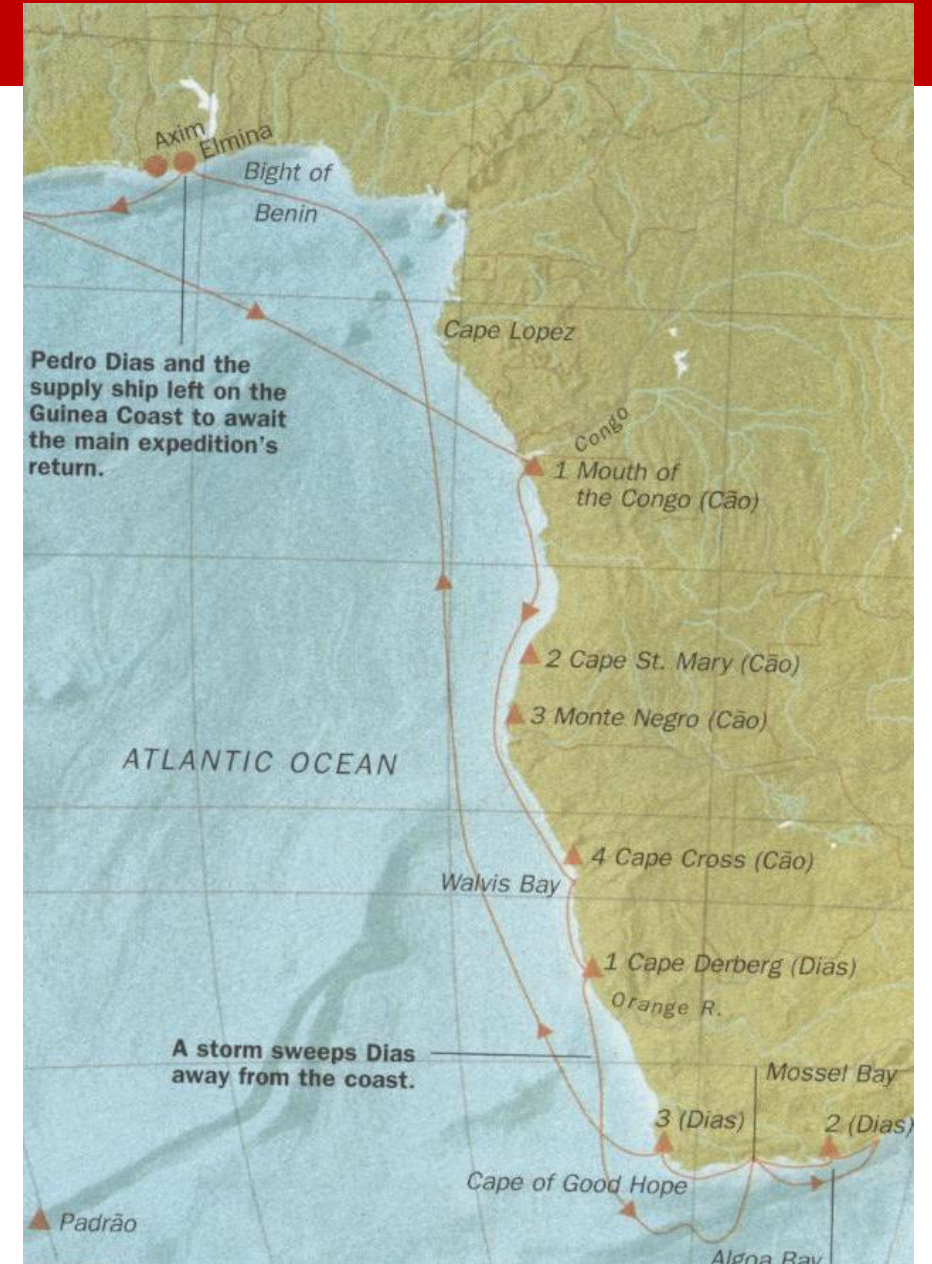
By 1484 the Portuguese had reached the mouth of the Congo River.

In 1487-8 they would sail around the Cape of Good Hope, and by 1497-9 they would reach India by sea.



Columbus turned to Spain. But also there he failed to impress the crown.

In 1488 he tried again with the Portuguese king and got a cheerful letter. He was invited to come to Lisbon and arrived in time to see Bartolomeu Dias' three caravels sail into port after their monumental voyage.



They had sailed past the Cape of Good Hope and opened the way to India around the African continent.

That was the end of any interest Portugal had in Columbus' enterprise.

He had only one hope left: Isabella, Queen of Spain.

After trying Henry VII and Charles VIII...



In 1474 Ferdinand of Aragon had married Isabella of Castile and unified two of the most powerful kingdoms in the Iberian Peninsula.



Isabella's palace.



Valladolid



Valladolid had
an important
fair.

Fernando's palace.



Zaragoza

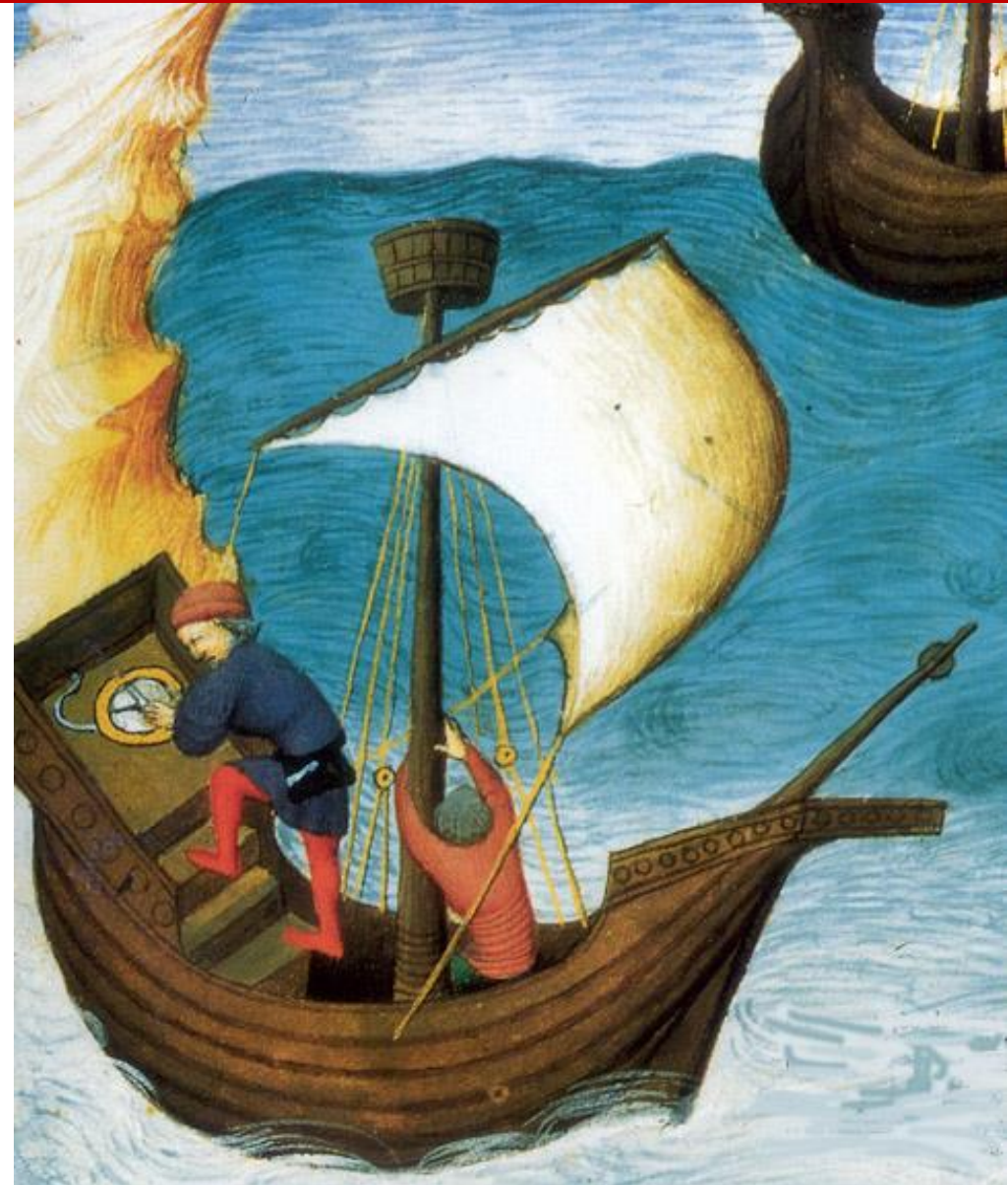


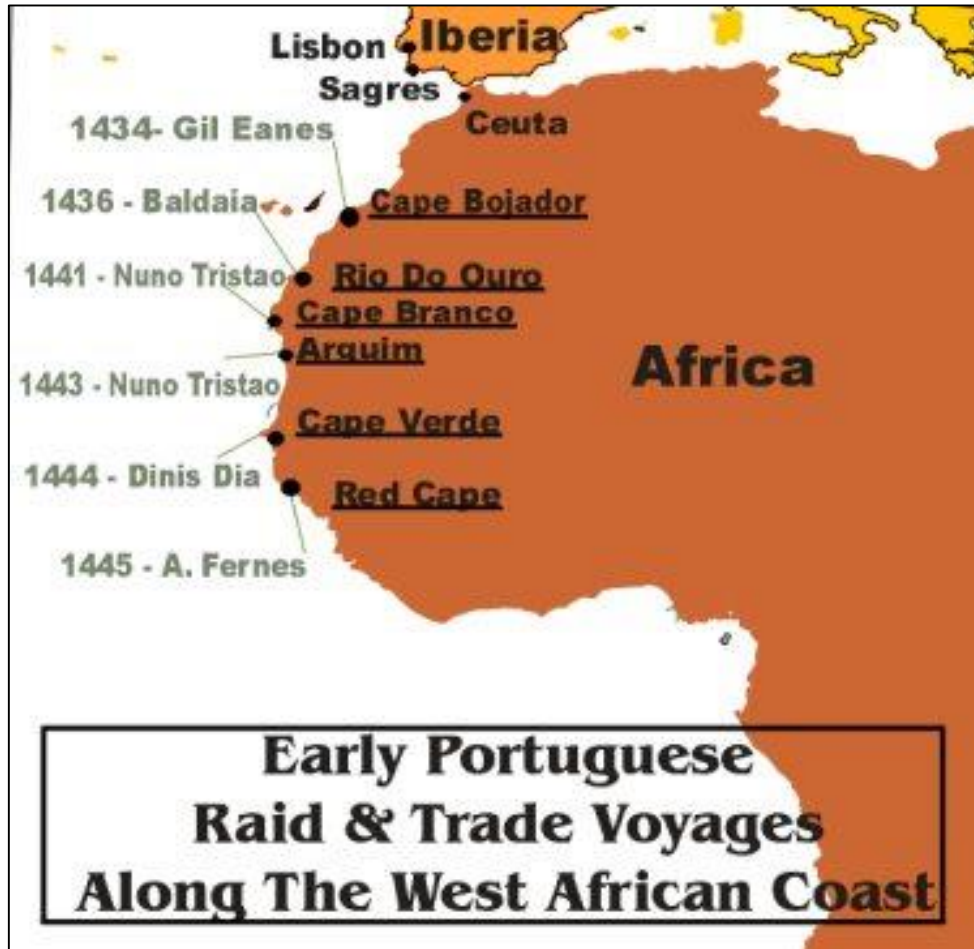
Unified in the hatred of Jews and Muslims, Spain was now a large, rich, and powerful nation. In this new Spain the old seafaring tradition of the Aragonese was joined to the wealth of the Castilian aristocracy solidly rooted in a land where large properties supported large herds of sheep which produced meat, milk, and highly profitable wool.



During the 14th and 15th centuries
several western European
countries started a systematic
navigation along the western
coast of Africa.

Compass: developed in
the early 14th century.

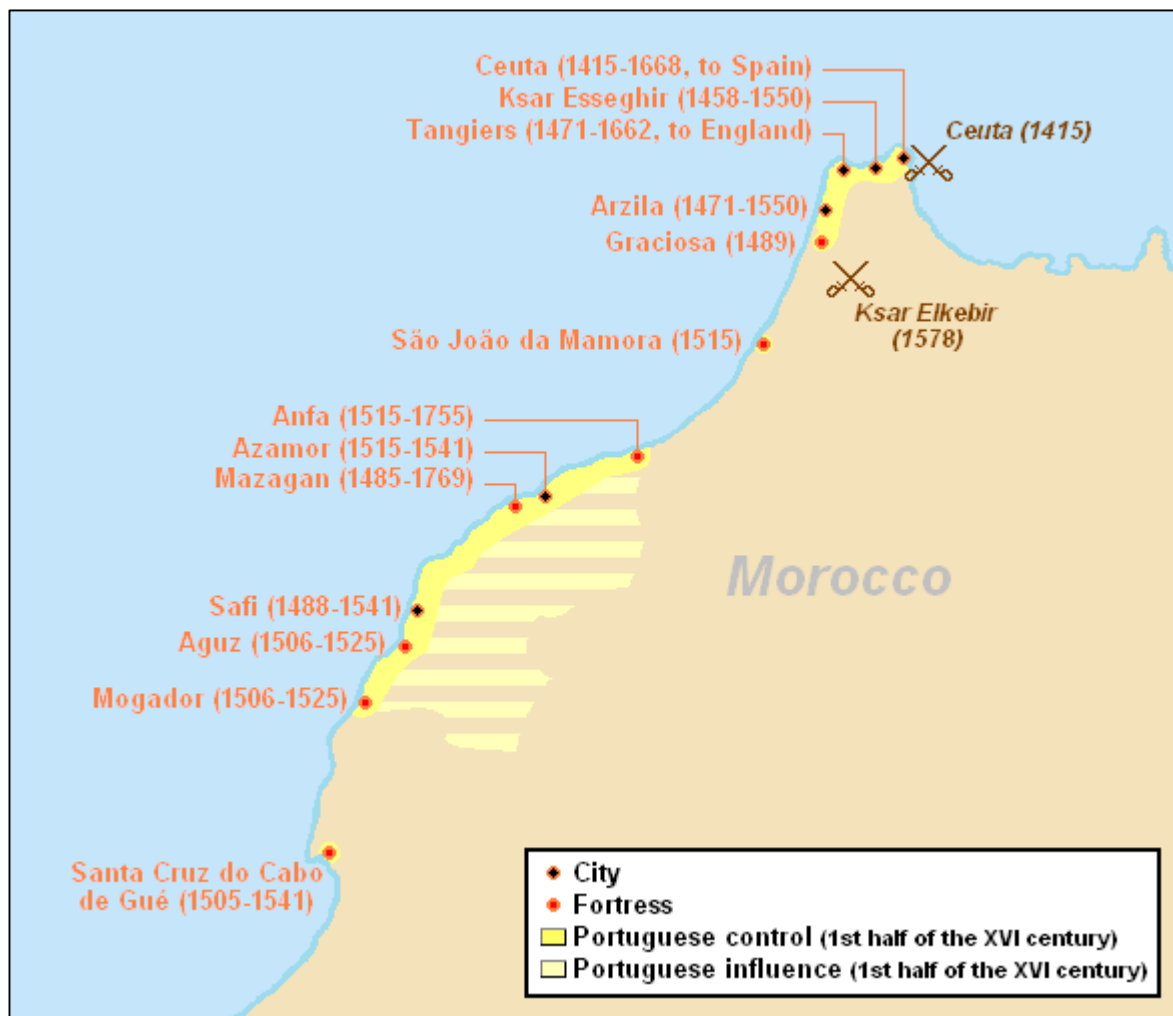




Portuguese sailors reached the Canary Islands between 1329 and 1336.

The Madeira Archipelago was sighted between 1351 and 1370, and claimed for the Portuguese crown in 1418-19.

The Azorean Archipelago seems to have been discovered by a Portuguese sailor called Diego de Silves in 1427.



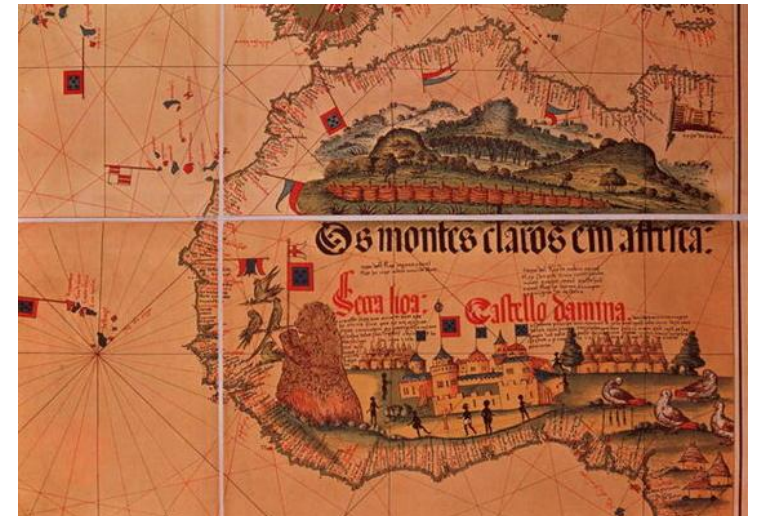
Prevented by Spain from growing to the east, Portugal extended its commerce, war, and fisheries to the south from 1415 on, with the conquest of Ceuta, in the North of Africa.



Arguim

In 1445 a factory was built at Arguim.
In 1456 the Cape Verdian Archipelago was explored.

In 1471 São Jorge da Mina (the future El Mina) was reached, and a trading post established. In 1482 a factory was built there.



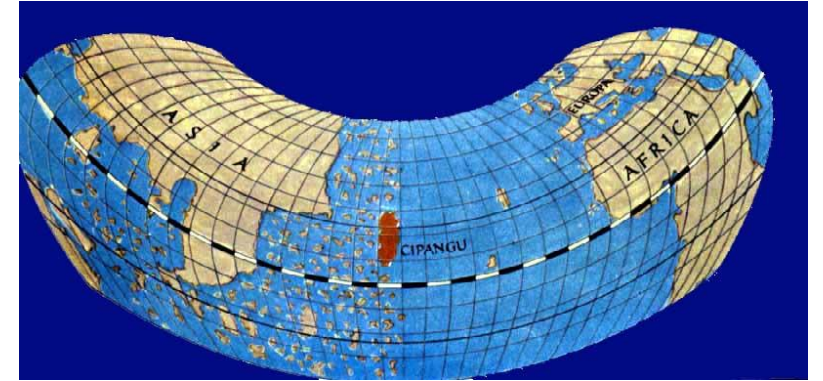
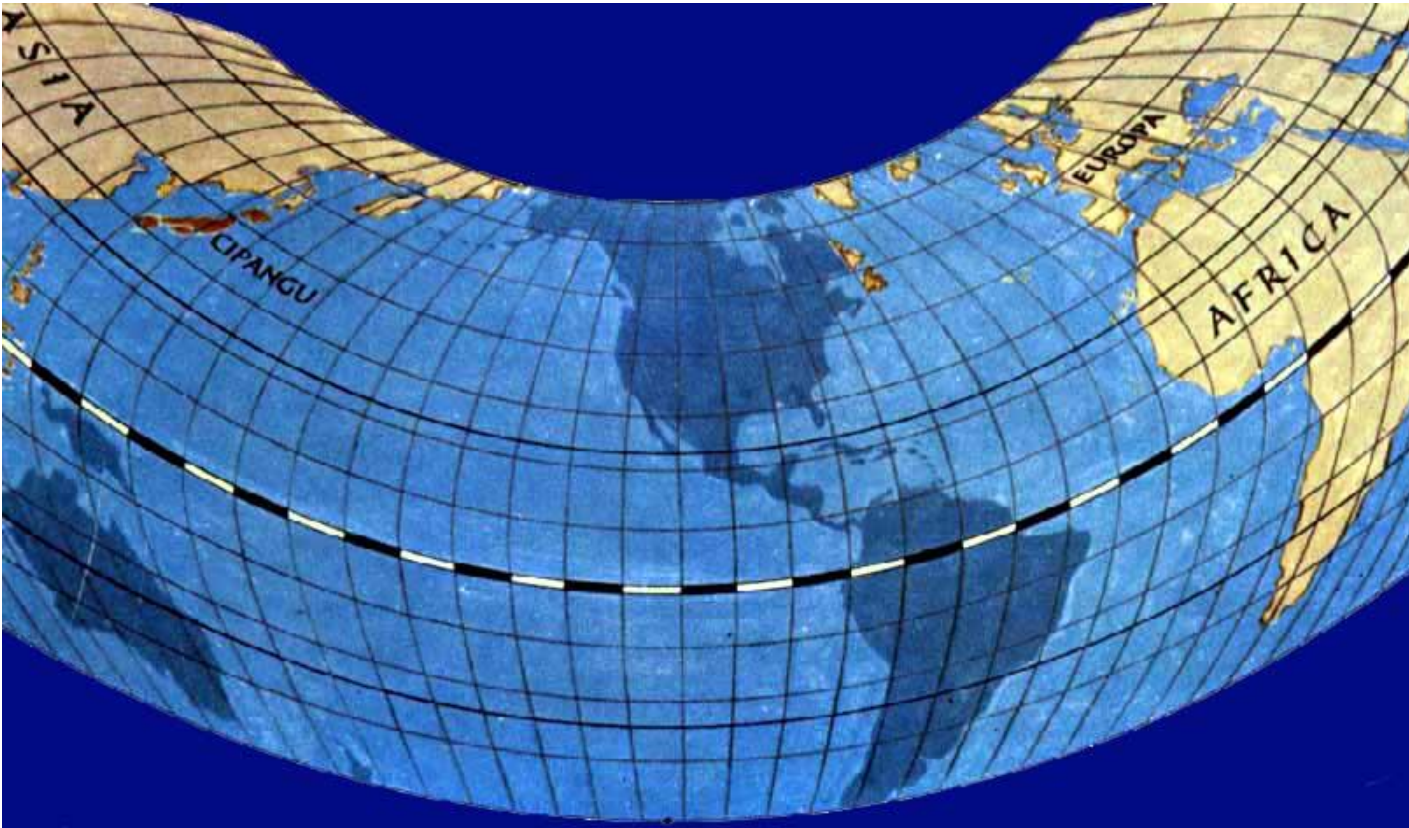
Sailing west was a necessity in view of the prevalent winds and currents, and in 1473 rich codfish banks were found by a sailor named João Corte Real off Newfoundland.

In 1476 and 1477 king Christian I of Denmark financed an expedition (integrating Portuguese pilots) to Greenland.



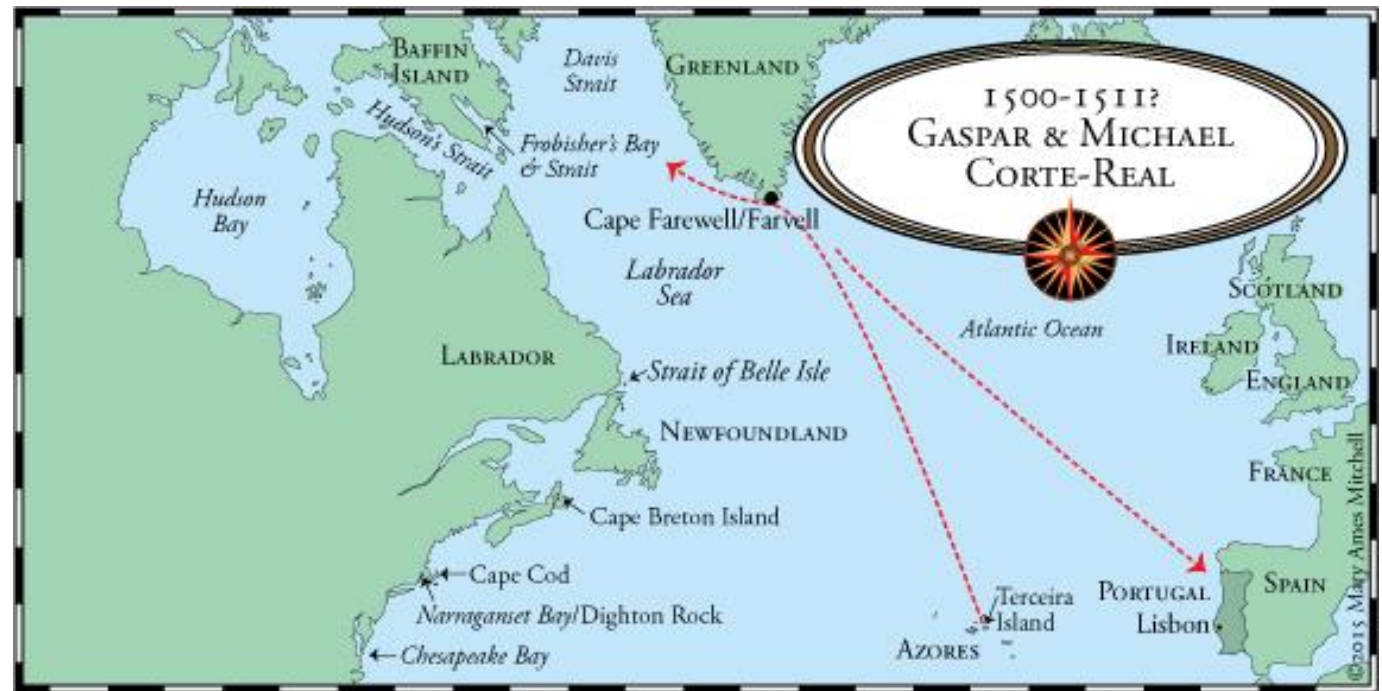
The map displays the Atlantic Ocean with a grid of latitude and longitude lines. The coastline of Africa is shown on the right, with major rivers like the Nile, Niger, and Congo labeled. The Azores, Madeira, and Canary Islands are marked in the upper left. The Cape Verde Islands are shown further south. The map includes numerous place names and geographical features, such as the Bay of Bights, the Gulf of Guinea, and the Atlantic Ocean. The map is oriented with North at the top, and the Atlantic Ocean is labeled in large letters across the center.

Trying to reach Japan sailing west, between 1492 and 1504 Columbus sailed four times into the Caribbean.



Between 1491 and 1495 Pero de Barcelos e João Fernandes Lavrador explored the Northwestern Atlantic.

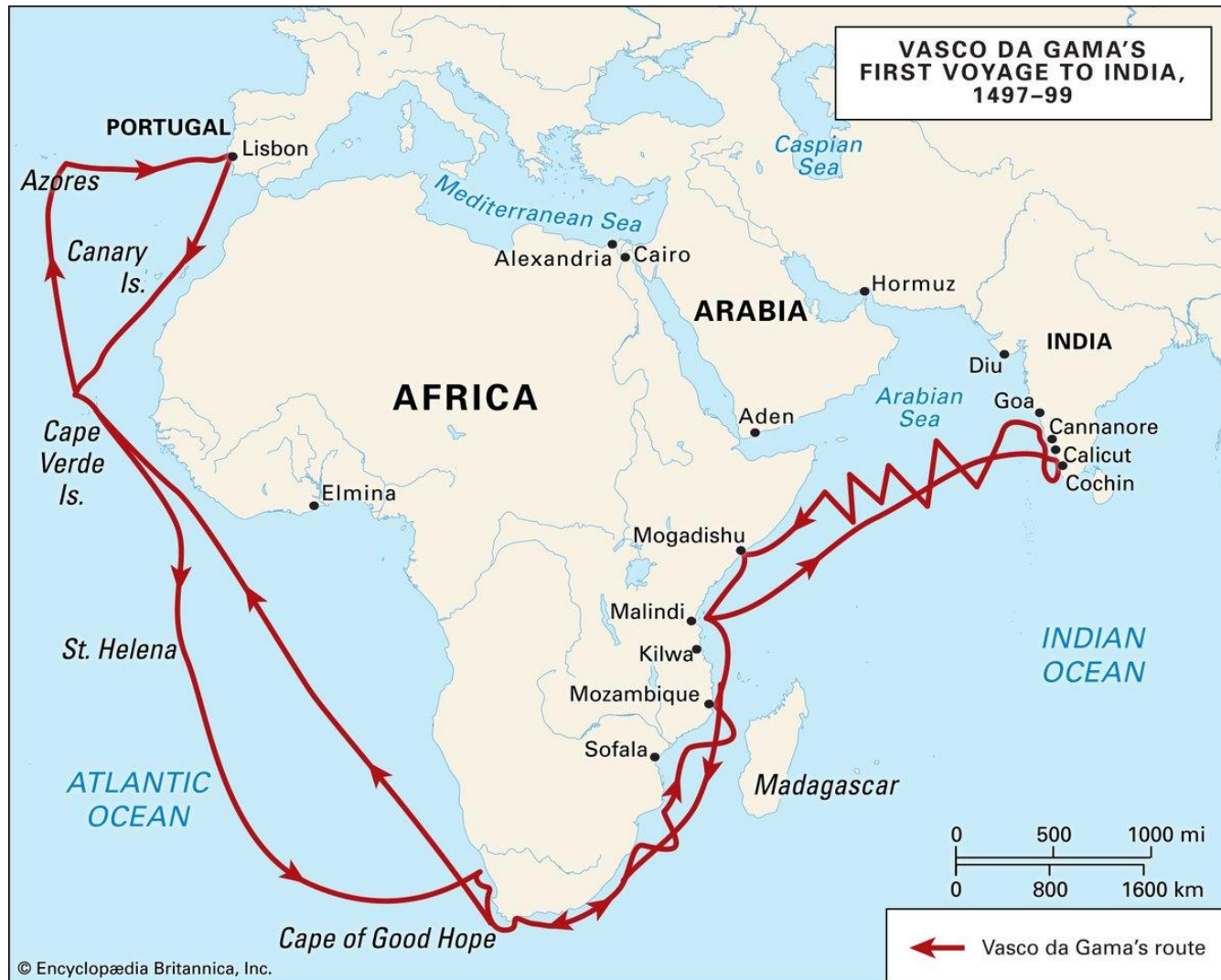
In 1497 Giovanni Cabotto, sailing from Bristol, reached Newfoundland.





1491-95:
Pero de Barcelos e
João Fernandes
Lavrador
explorations.

1575:
Map of Fernão Vaz Dourado.



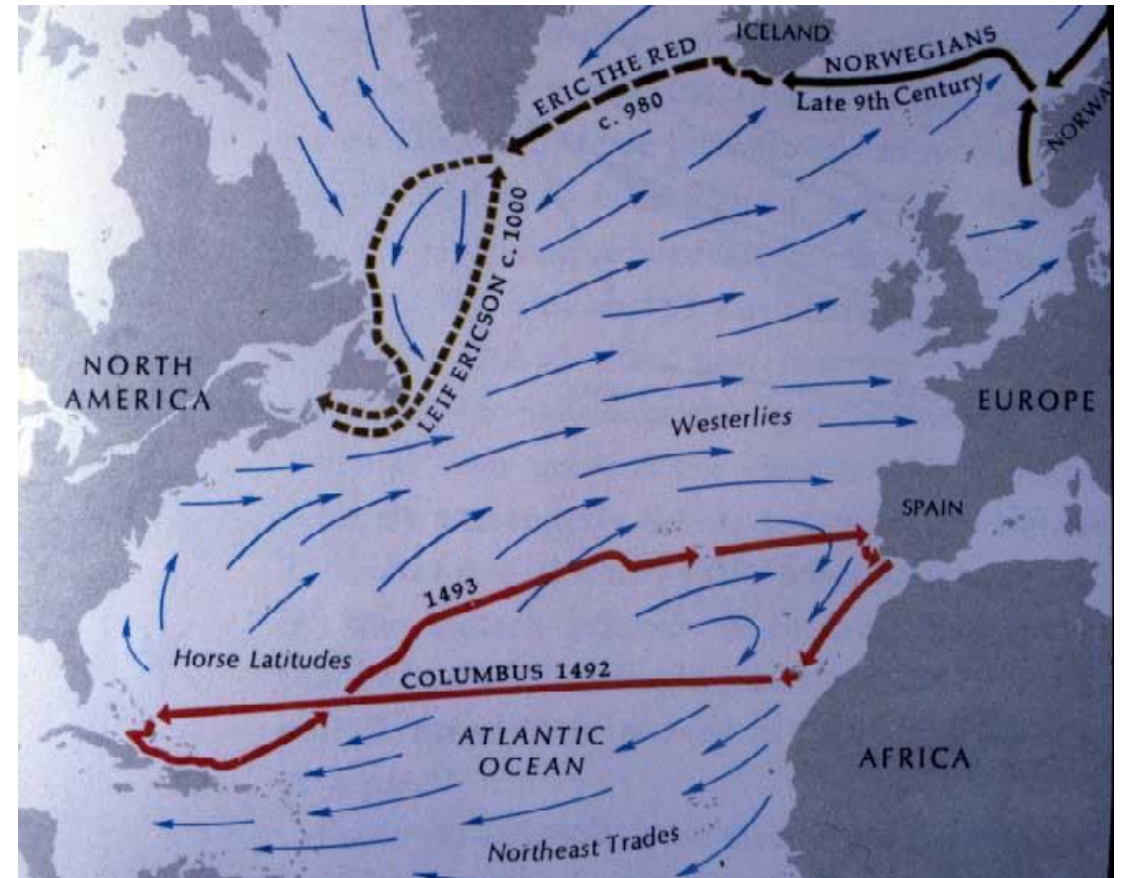
The route to Asia was found sailing east. In 1498 Vasco da Gama reached Calicut, in India, by sea, opening a route to the Asian markets.



After failing to convince John II of Portugal and Henry VII of England it was Spain who supported Columbus' venture, after four years of negative opinions from the royal maritime advisory committee.

In 1492, following the conquest of Granada, the last Muslim center in the Iberian Peninsula, Isabella and Ferdinand granted Columbus three ships and a crew.

Now he could try to reach Japan by sailing west.



1st Voyage 1492-1493



1492-Aug-2

Columbus departed from Palos.

In early September, after repairing and refitting his ships, he departed from the Canary Islands and headed West.



Palos de la Frontera

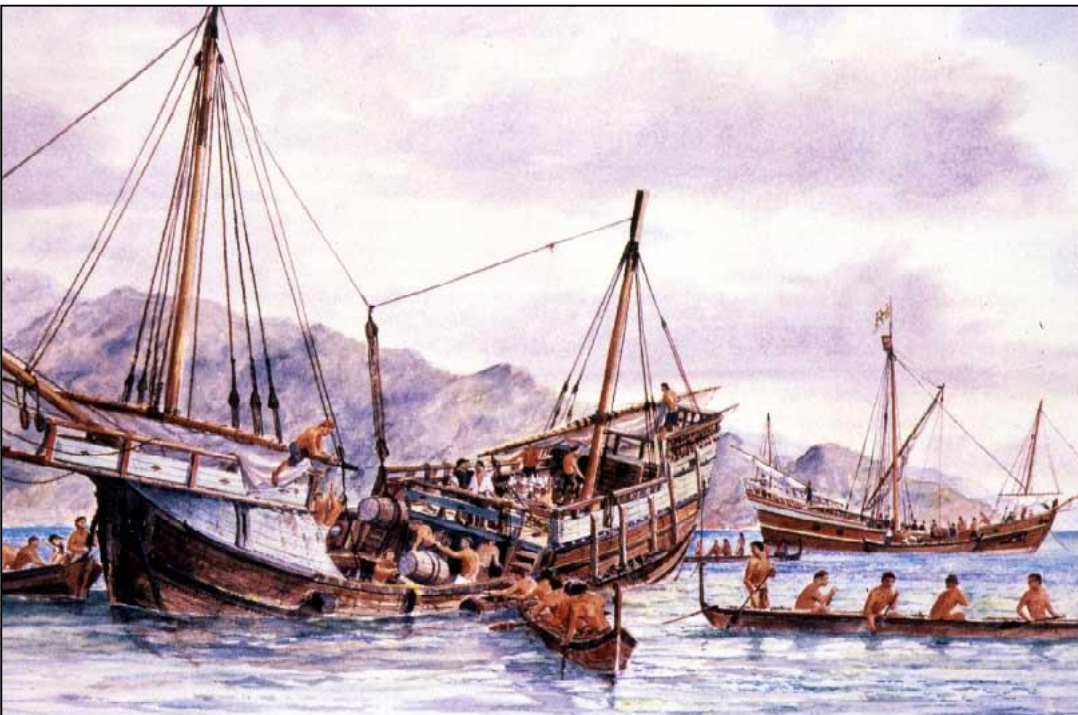


From September 6 to October 12

Columbus' small fleet (*Niña*, *Pinta* and *Santa Maria*) sailed west.



On October 12 the New World was sighted at 2:00 a.m. by Rodrigo de Triana. Next morning they went ashore and claimed the land for the monarchs of Spain.



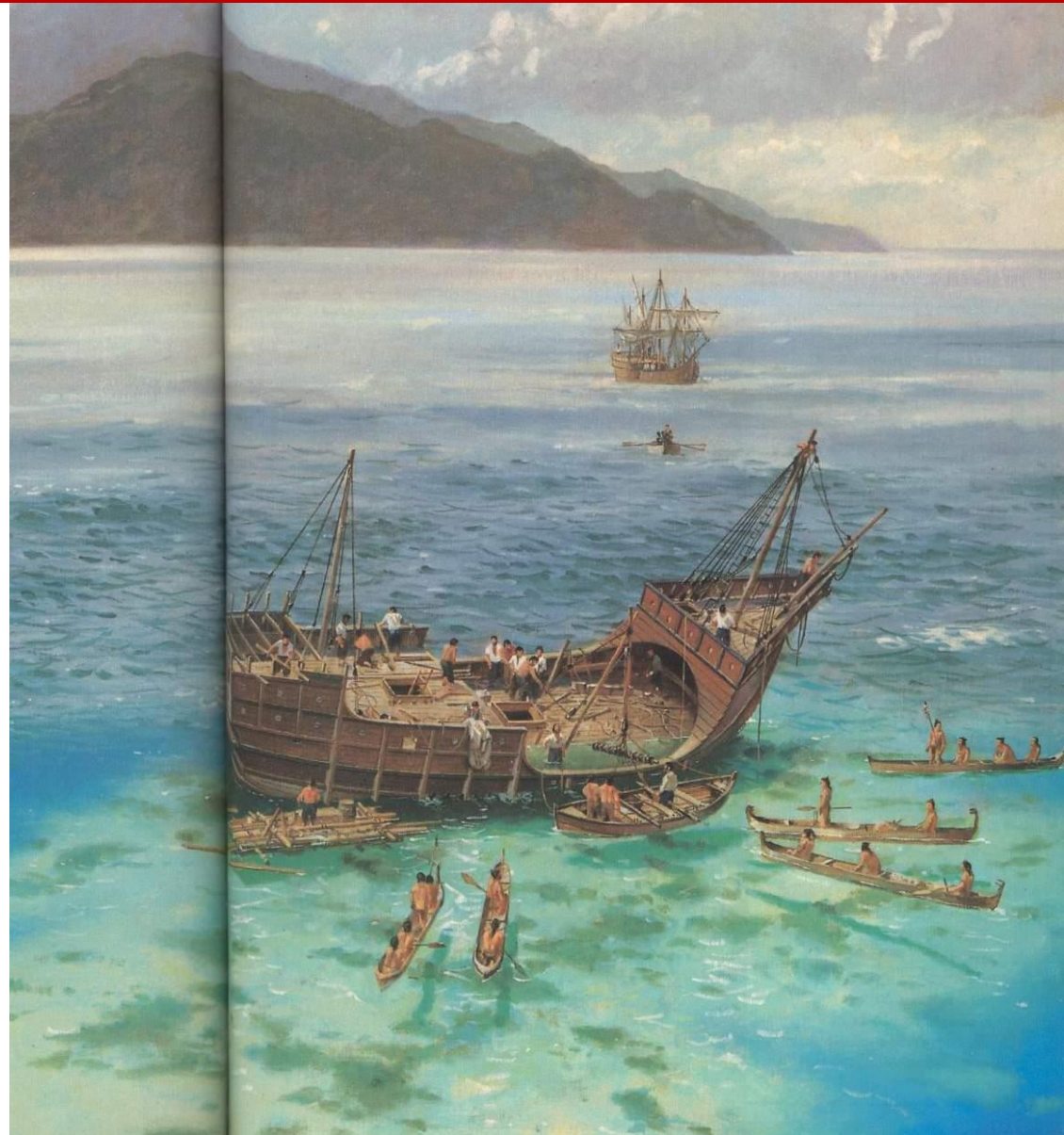
By late October Columbus arrived at Cuba.



By early December he arrived at Hispaniola.

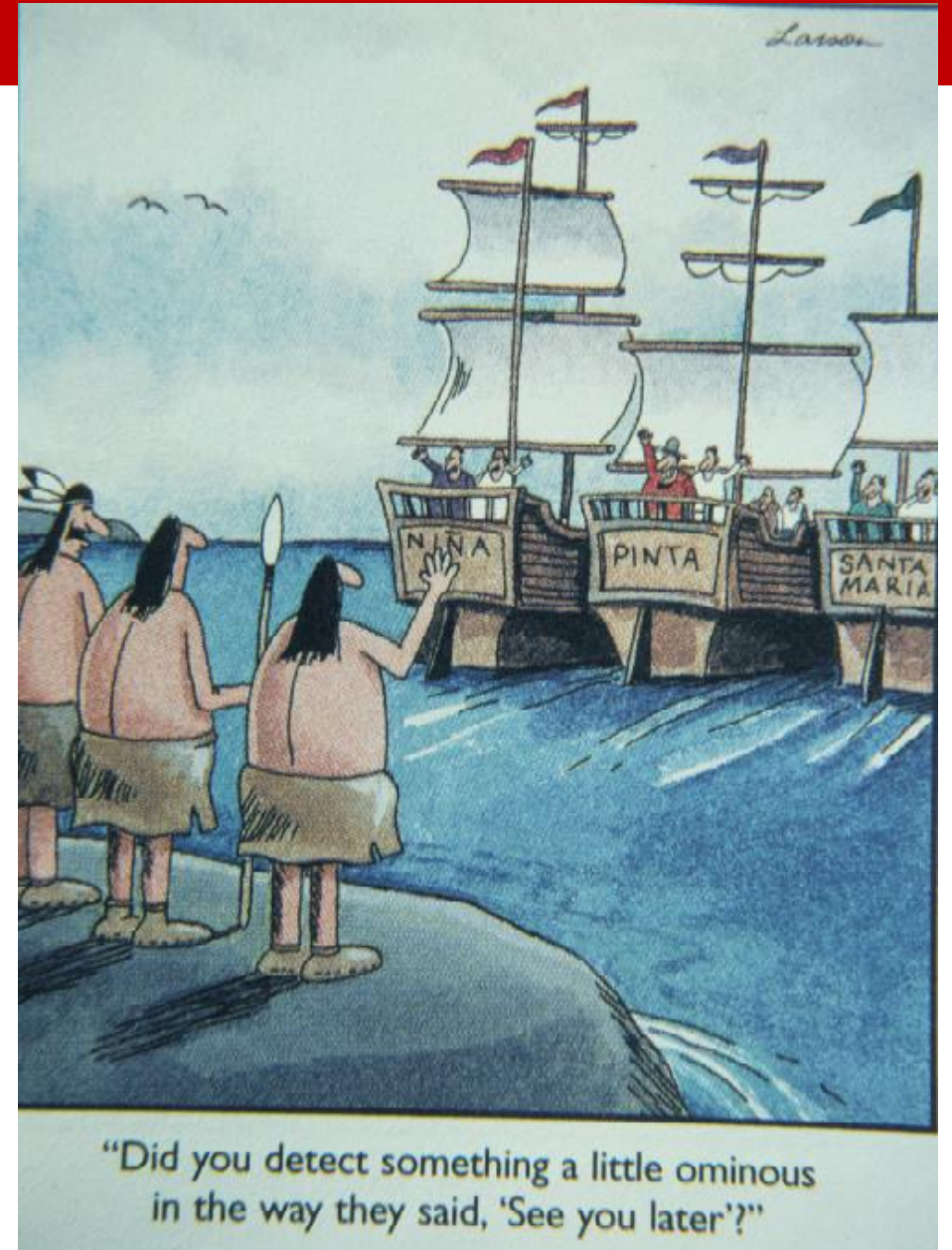


On December 25 the flagship *Santa Maria* sunk off Hispaniola, near today's Cap Haitien. Columbus unloaded his ship and built a fortified outpost, the first European settlement in the New World after the Vikings. Because it was Christmas day he called it *La Navidad*.



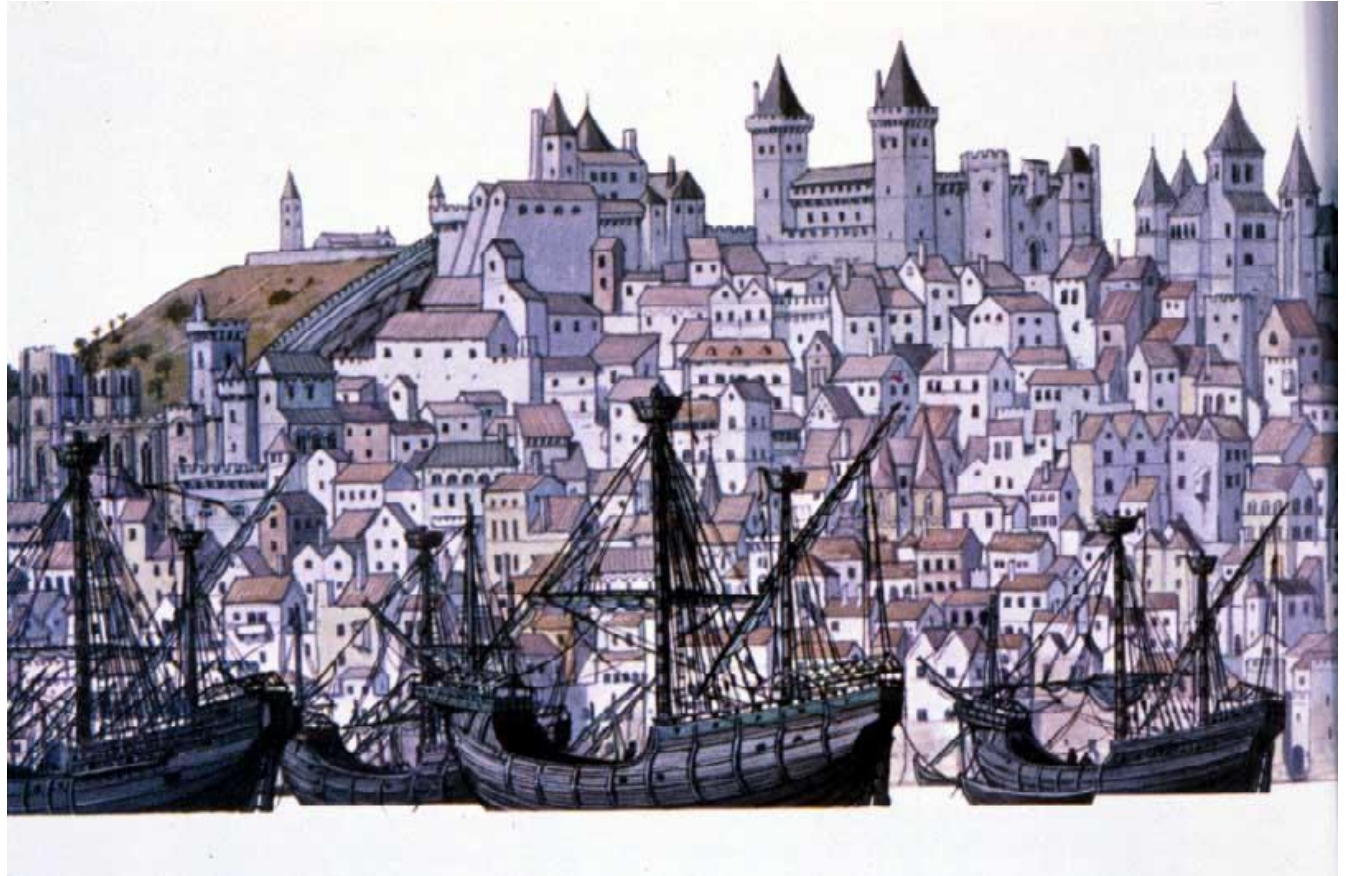
In Mid January 1493 Columbus departed Hispaniola for Spain, leaving 39 men at La Navidad.

On February the 15th he sighted Santa Maria Island in the Azores.



Columbus stopped at Lisbon, Portugal, in early March.

On the 15th of March Columbus arrived at Palos, Spain.



Since the early 14th century Portugal and Spain had been fighting over the Canary Islands and the right to fish in the rich African waters. Following a previous agreement in 1479, they reached an agreement in 1494 known as Treaty of Tordesillas:

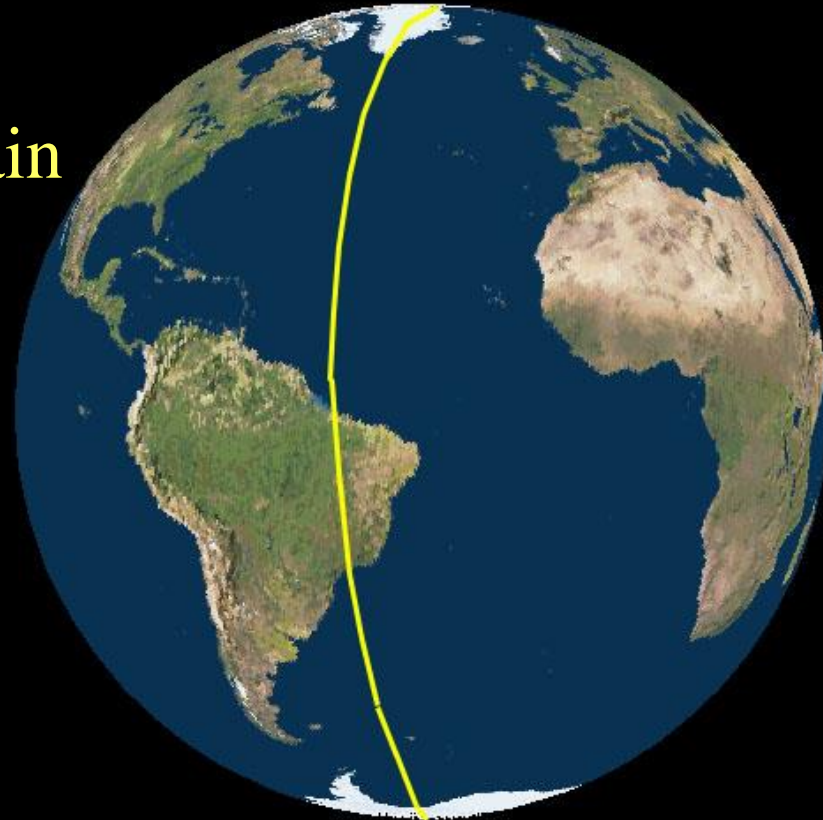
1. Possession of all new land to be discovered or conquered was divided between Portugal and Spain by a line that passed 370 leagues west of Cape Verde;
2. The right of fishing in the banks of New Foundland and the African coast were secured to both countries.





Portugal

Spain

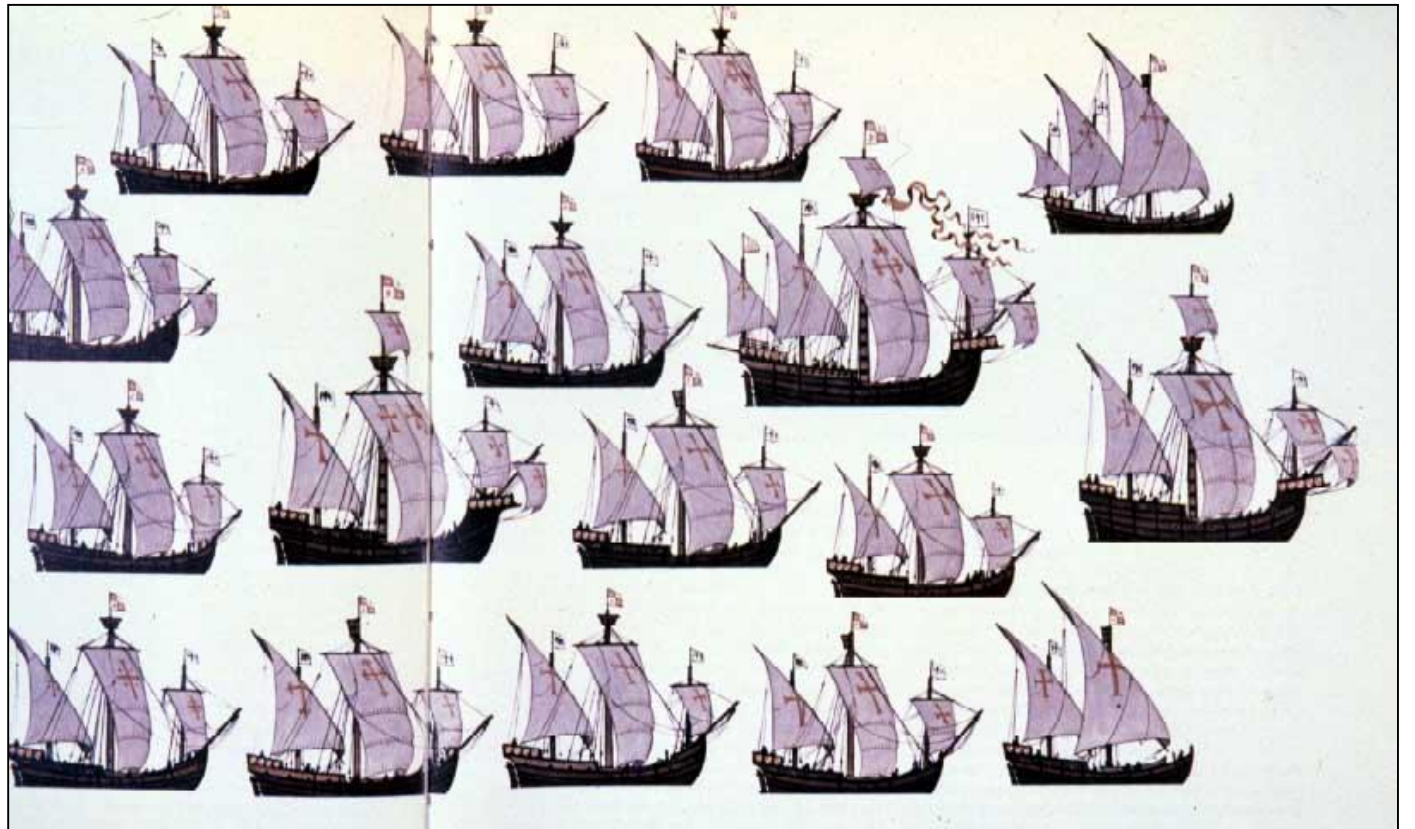


Portugal

2nd Voyage 1493-1496



September 1493: six months after arriving in Spain, Columbus left again to the New World, this time well equipped and supplied with 17 ships.



The Grand Fleet of 17 ships left Cadiz to the New World in late September.

In early October they raised anchors at the Canary Islands and sailed WSW.

In the first days of November the island of Dominica was sighted at dawn and Guadeloupe shortly after.

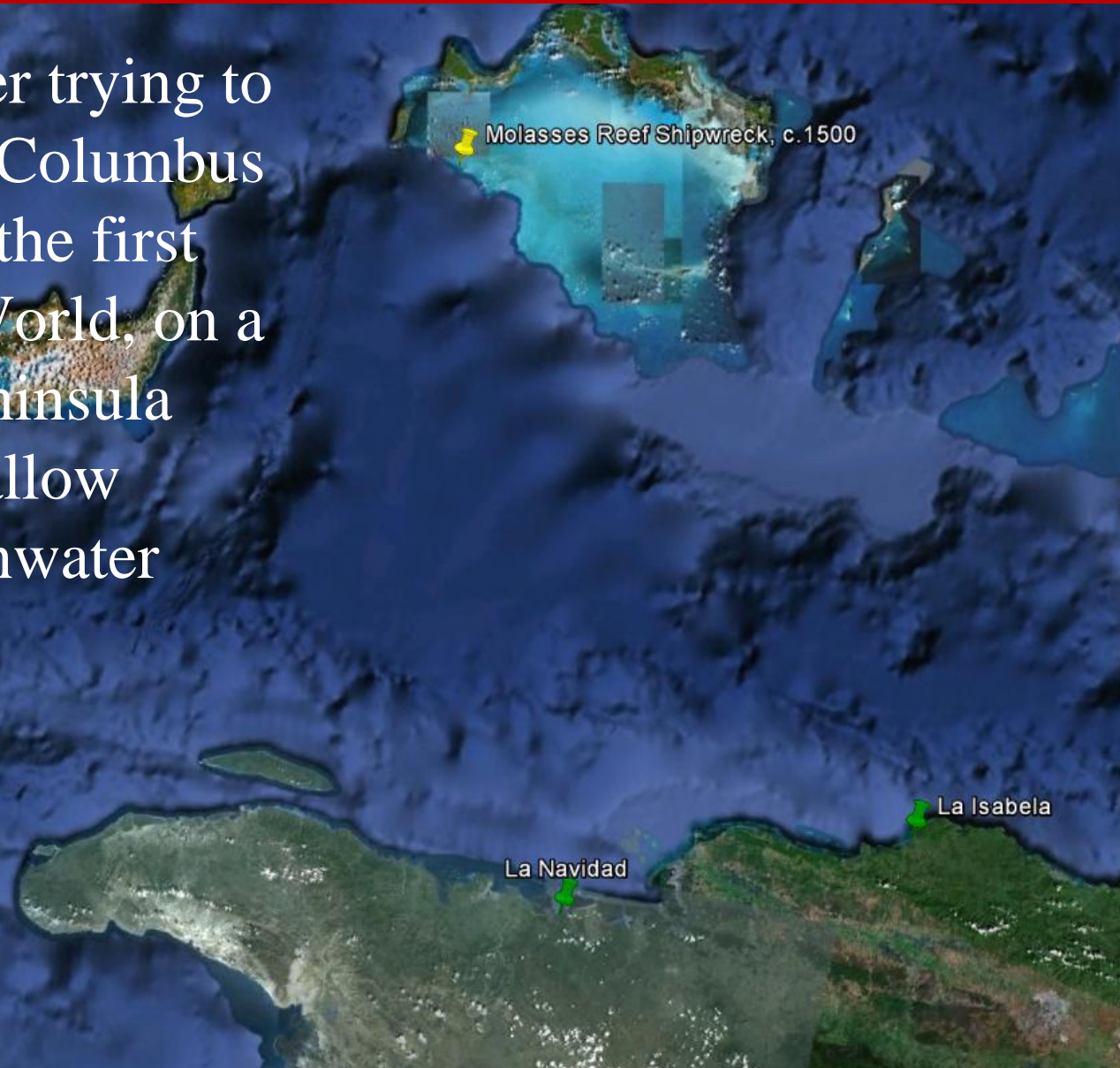


Shortly after Columbus arrived at Hispaniola and found *La Navidad* destroyed.
All of his 39 men were dead or missing.



In December, after trying to sail west in vain, Columbus decided to found the first city in his New World, on a small wooded peninsula overlooking a shallow harbor and a freshwater river.

He called this city **La Isabela** in honor of his Queen.



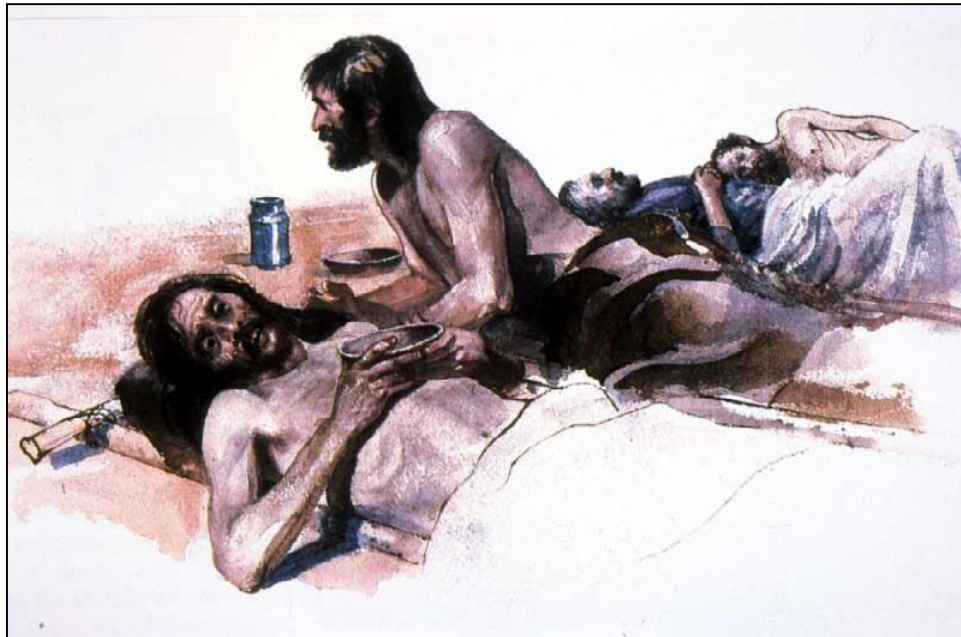
After disembarking colonists, livestock and cargo, he sent all but five ships home to minimize the crown expenses.

Columbus had a share in the flagship *Mariagalante*, and owned the remaining four vessels that stayed: the *Niña*, the *Gallega*, the *San Juan* and the *Cardera*.

In the Spring of 1494, after establishing a council to rule La Isabela, Columbus sailed towards Cuba and Jamaica to explore the coast.



When he arrived at La Isabela, five months later, Columbus found the settlers nervous and discontent, and the natives aggressive, after being treated cruelly. Many settlers wanted to go home.



In February 1495 he
sent many colonists
back to Spain with
500 natives to be sold
as slaves.



Soon after they left, a hurricane struck La Isabela and destroyed three of the vessels left behind. The sturdy *Niña* rode out the storm.

The settlers built a caravel (the *Santa Clara*) from the wreckage and nicknamed her *La India*, since she was the first vessel built by Europeans in the Indies.



Together with the *Niña*, *La India* sailed back to Spain in 1496 under the command of Columbus.



3rd Voyage 1498-1500



In May 1498 Columbus departed again from Sanlucar de Barrameda with six ships. By early June he arrived in the Canaries, in July he sailed by the Cape Verde Islands, arriving at Trinidad in the first days of August.



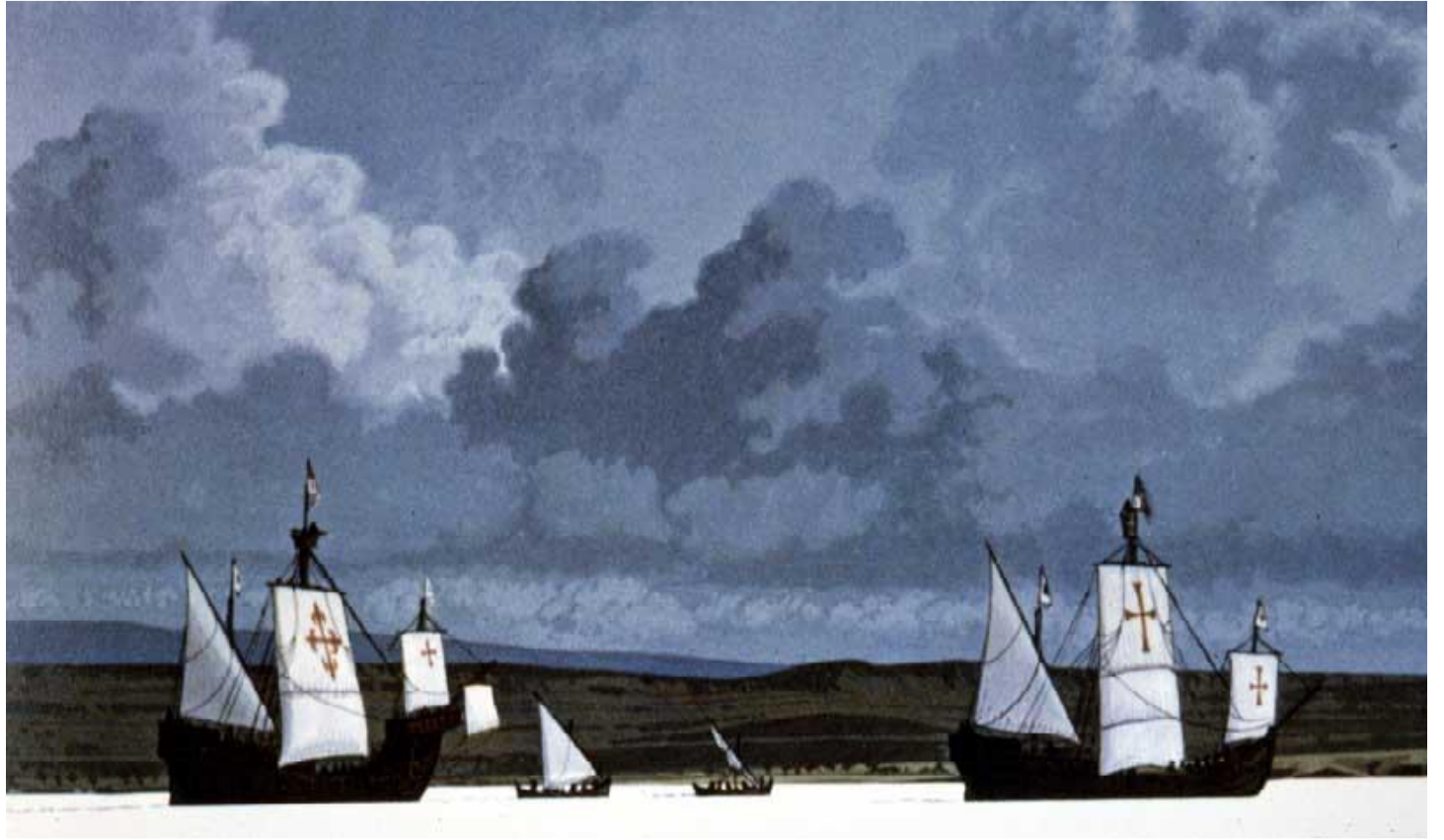
From Trinidad he sailed to Isla de Margarita and Hispaniola. The problems in the colony were enormous and quarrels with the Spanish eventually led to Columbus being arrested. By late 1500 he arrived in Spain, demanding to be kept in chains so that the royal officials could see how he had been treated.



4th Voyage 1502-1504



On May 1502 Columbus departed from Cadiz to the New World with four caravels and 140 men.



By late June he arrived at Santo Domingo, Hispaniola, and then continued west to the coast of Central America in the hopes of finding a passage to the East Indies.



By July he arrived at the Mosquito Coast, in modern day Nicaragua, and sailed south along the coast.



In January 1503 he tried to establish a garrison at Rio Belen, in Panama, which he named Santa Maria de Belen. After being attacked by natives he had to abandon the site, losing the caravel *Gallega* and a few men at the mouth of the river.

Then shipworms took their toll on the remaining fleet.











Leaking badly, the *Viscaina* was abandoned near Portobelo. The other two ships, *Capitana* and *Santiago de Palos*, were beached and abandoned on a bay called Puerto Santa Gloria, in **Jamaica**, and turned into houses.

Columbus





Portobelo, Panama

Nombre de Dios, Panama



Courtesy of Air Corps, U. S. A.

Port and town of Nombre de Dios.



Nombre de Dios, Panama



Playa Damas



Playa Damas Shipwreck



Leaking badly, the *Viscaina* was abandoned near Portobelo. The other two ships, *Capitana* and *Santiago de Palos*, were beached and abandoned on a bay called Puerto Santa Gloria, in Jamaica, and turned into houses.



Columbus would stay here with 115 men and boys, for one year, waiting to be relieved.


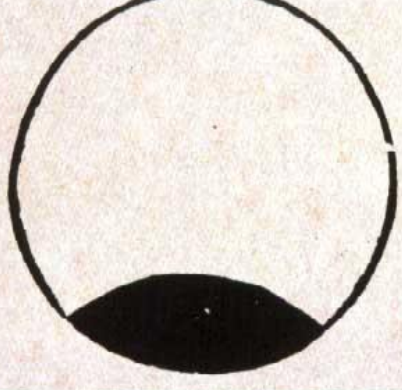
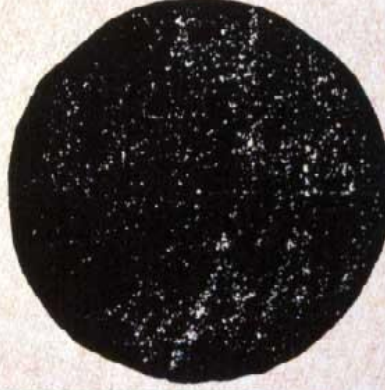
He sent two men in local canoes improved with sails and washboards to try to get help at Hispaniola.

In the mean time he bartered for food with the local Taíno Indians.

Despair and discontent erupted among the castaways and half of the men left the camp in an attempt to escape and make it to Hispaniola by canoe (under Diego de Menendez).

As the natives increasingly refused to feed his men, Columbus decided to summon the local chiefs aboard the *Capitana*.

Having found on his German almanac that a lunar eclipse was to occur on the night of February 29 1504, he told them that his god was going to take the moon away as a sign of disapproval of their behavior.

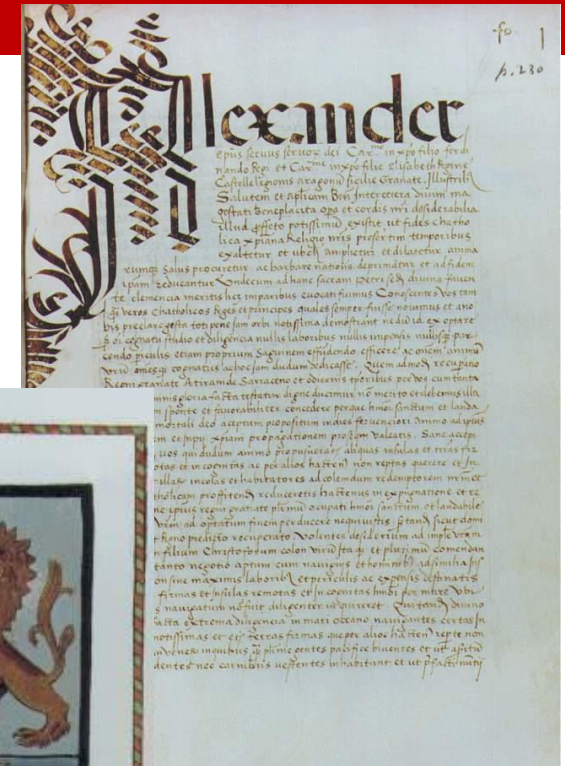
1502	1502	1504
Eclypsis Solis	Eclypsis lune	Eclypsis lune
19 45	15 12 20	29 13 36
Septembris	Octobris	Februarius
Dimidia auratio	Dimidia auratio	Dimidia auratio
1 7	1 1	1 46
Acta decem	Puncta tria	
		

That night, as the rising moon started to disappear, the natives gathered around his vessel and begged Columbus to intercede on their behalf.

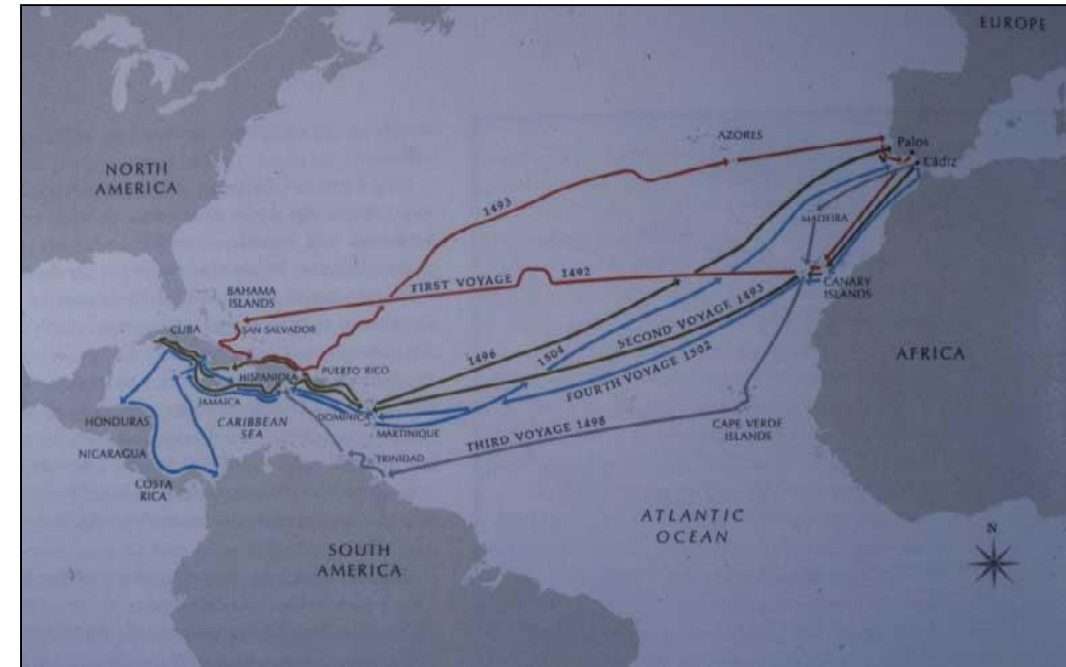


Columbus was finally rescued in June 1504, not before fighting a battle with the party that had deserted, trying to reach Hispaniola by canoe.

In November Columbus returned to Spain, where he was to die on May 20 1506.

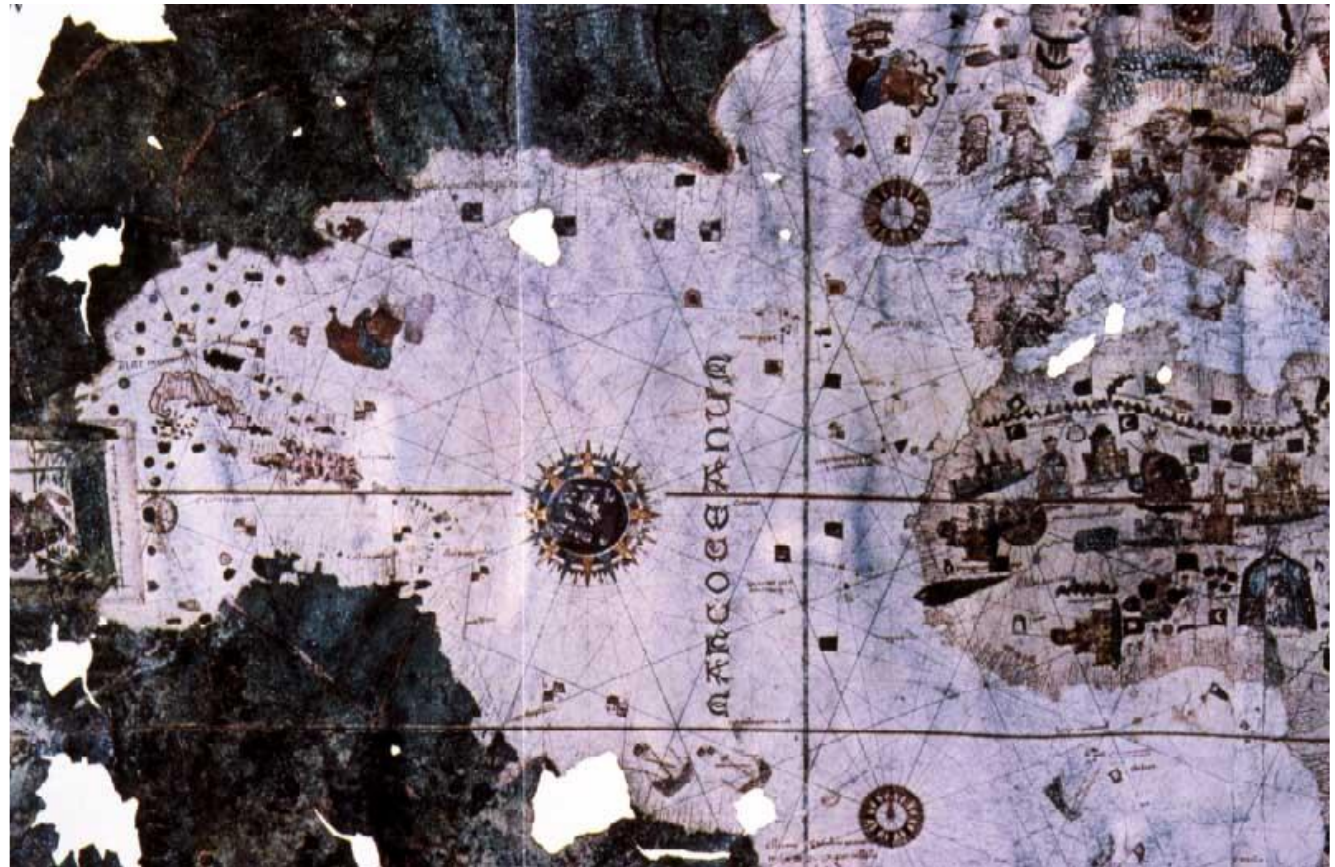


Wrong in his believe that the Earth was smaller, that Asia was longer, that it was possible to reach Japan sailing West, and that he had reached India, Columbus was nevertheless the actor who opened the door of the New World to Europe, and dramatically changed western history.



As most things in history, depending on the point of view, the story of the discovery of the American continent can be a happy one, or a sad one.

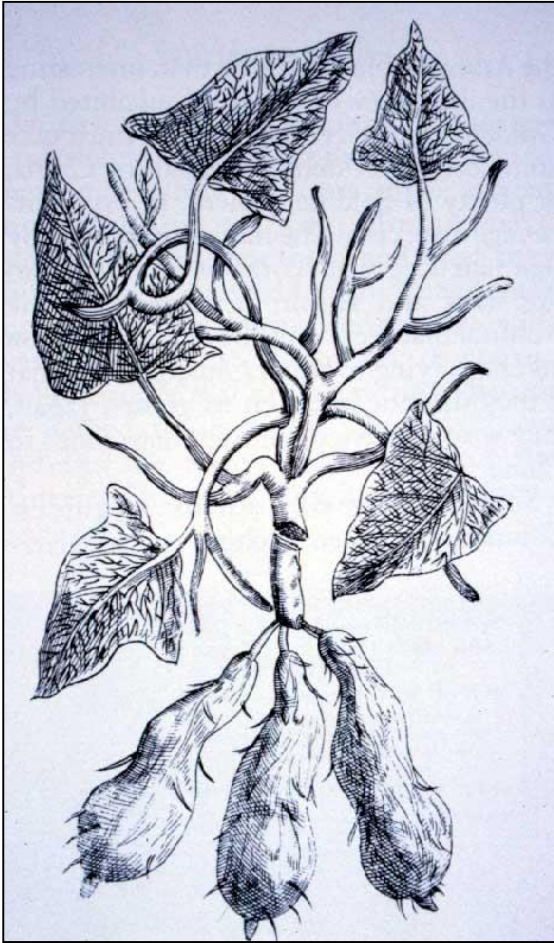
Maps were completed with new parts of the world.



New animals, plants, technologies, and foods were discovered or developed.

New ideas poured into the old world, as people got away from the oppressive political environment of the early 16th-Century Europe.

Exotic products were brought, together with precious metals and stones, starting a stream of wealth that changed European economics forever.

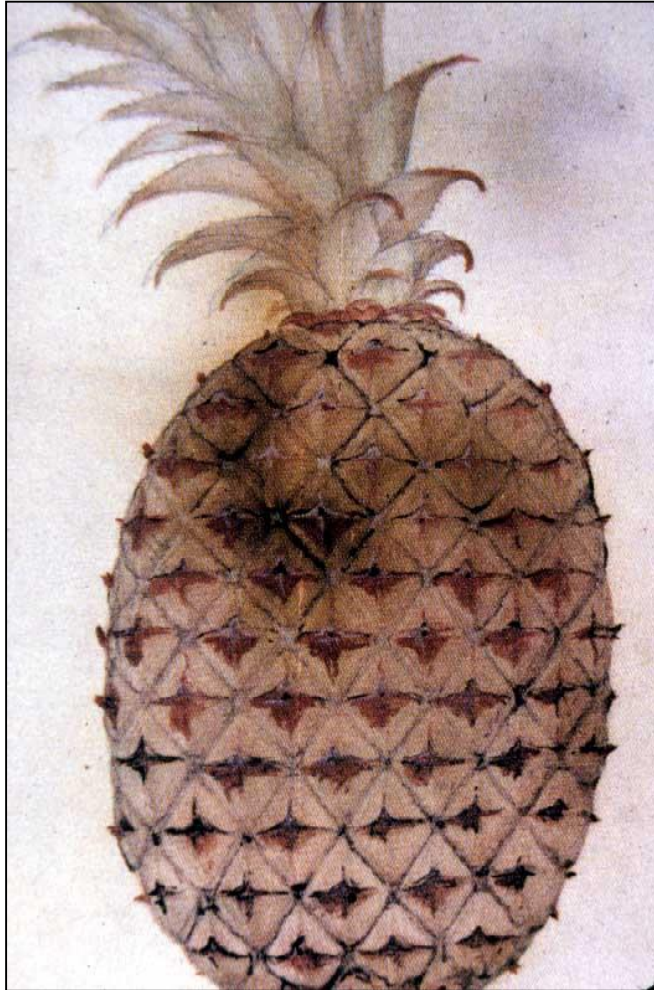


Examples of new products are:

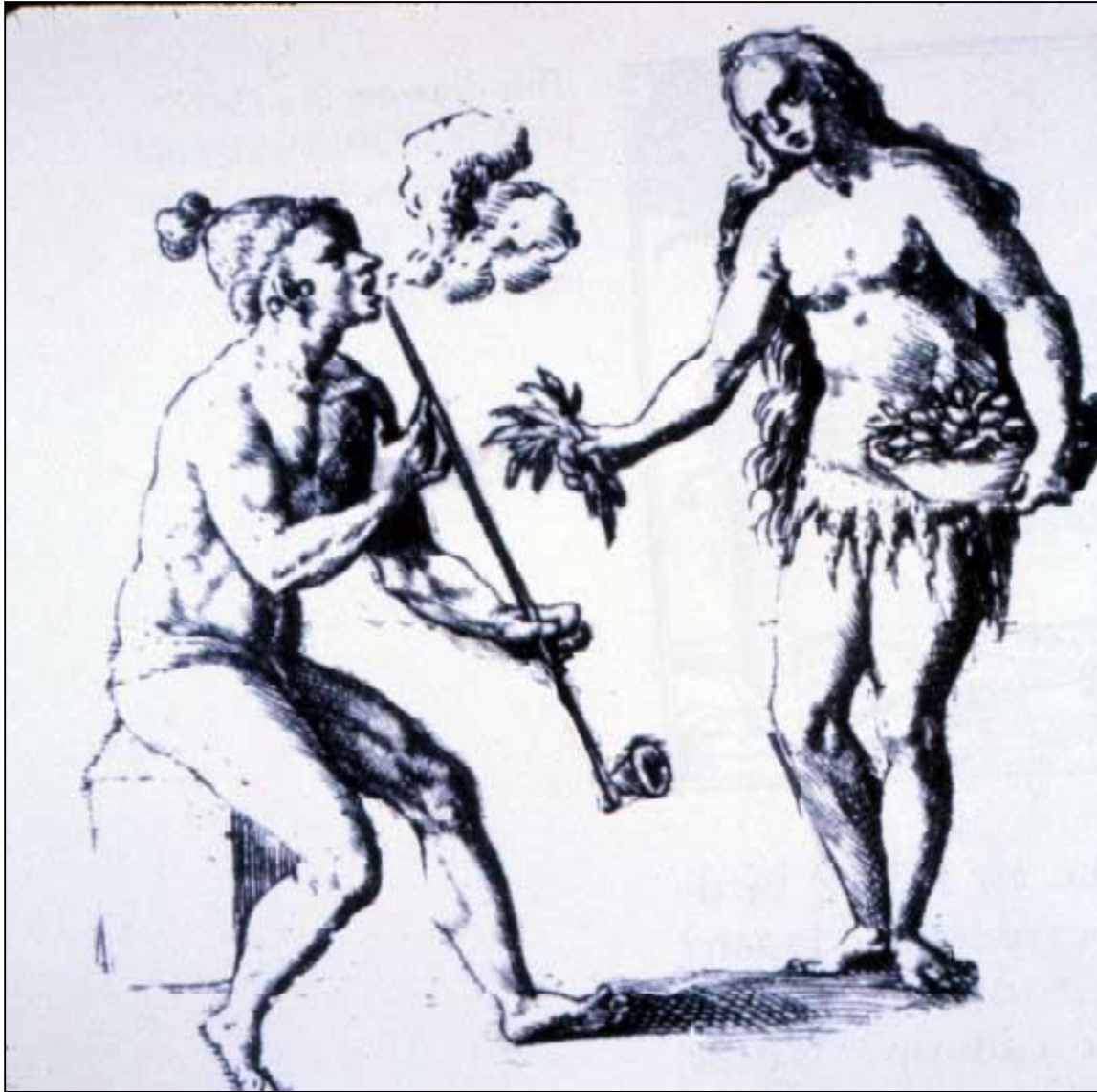
Sweet potatoes,
many types of beans,
squash, cocoa beans,
and tomatoes.



all varieties of
maize,



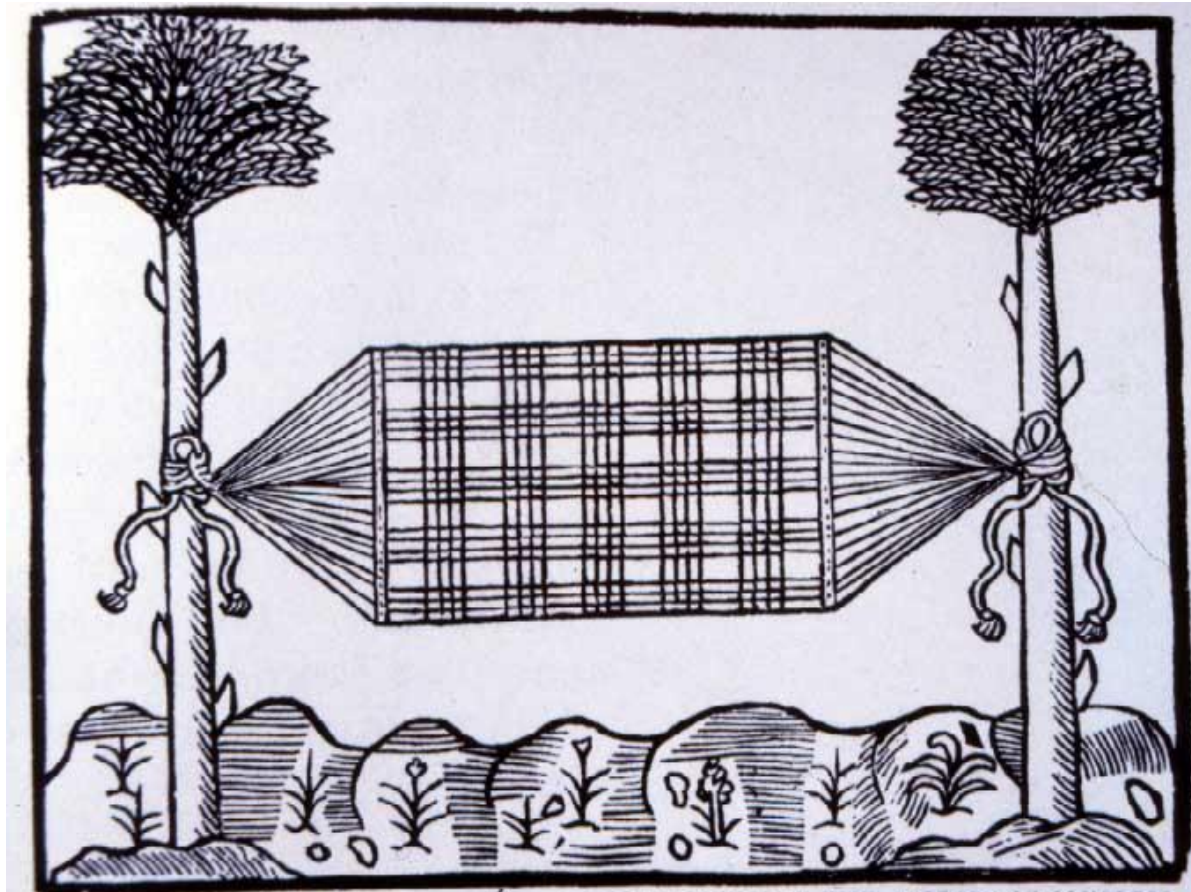
pineapple,
quinine,



and tobacco, which
one century later
would save the North
American
colonization effort
from failure.



hammocks were also introduced to Europeans after the discovery of America.



The relations with the native populations were not always good or peaceful.

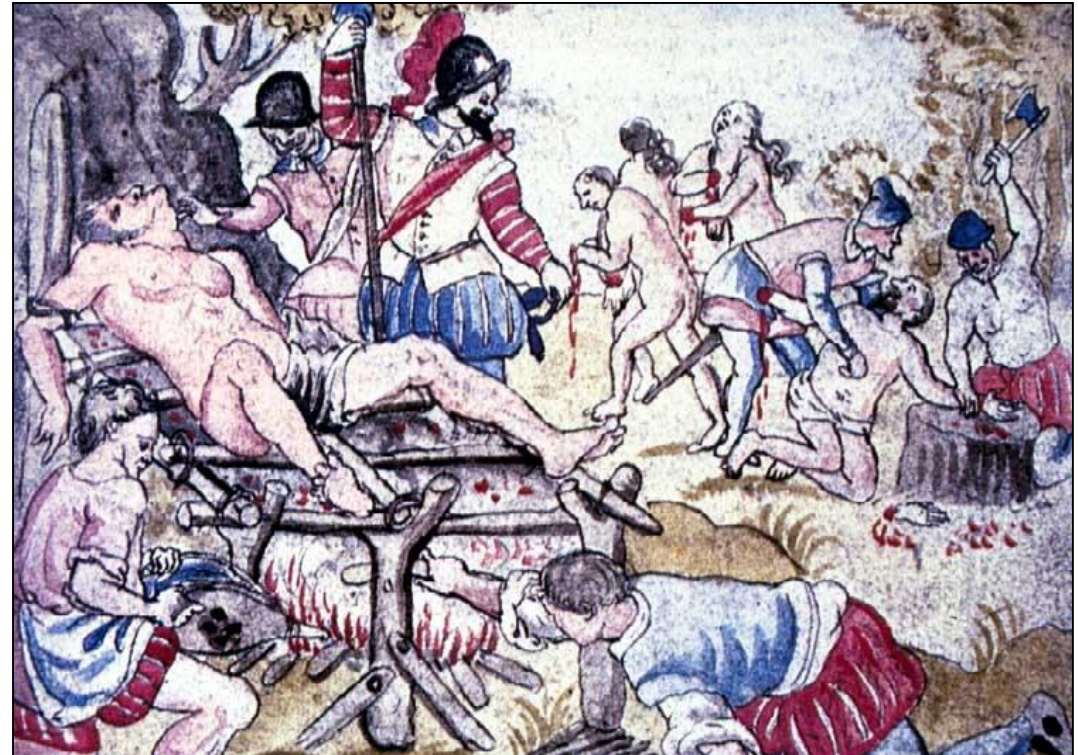


Isolation had kept the native Americans from most epidemics that ravaged Eurasia and Africa during the last 14,000 years or more.

The exchange of diseases quickly exterminated large populations of natives.



But most importantly, for the natives, the European conquest and colonization meant the beginning of a genocide that did not stop until the late 19th century, both in the Northern and Southern portions of the American continent.





The 16th century would belong to the Spanish conquerors and Seville - a small port away from the sea - was to become the center of an empire where the sun never set, the largest ever seen since the Roman times.

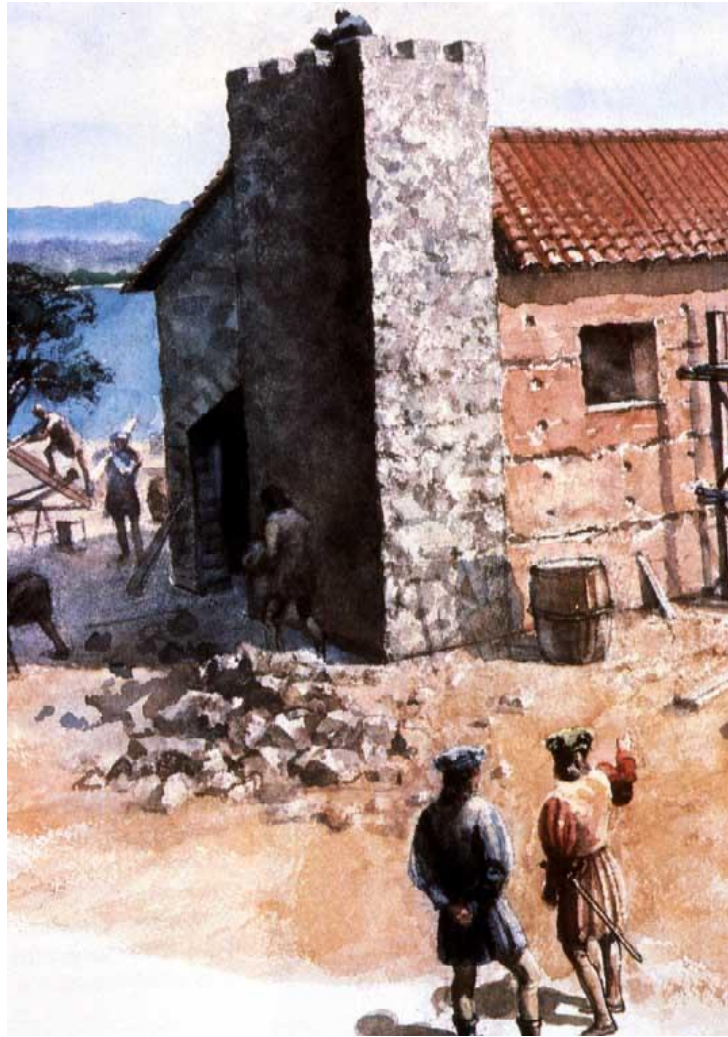
Ruins of La Isabela:



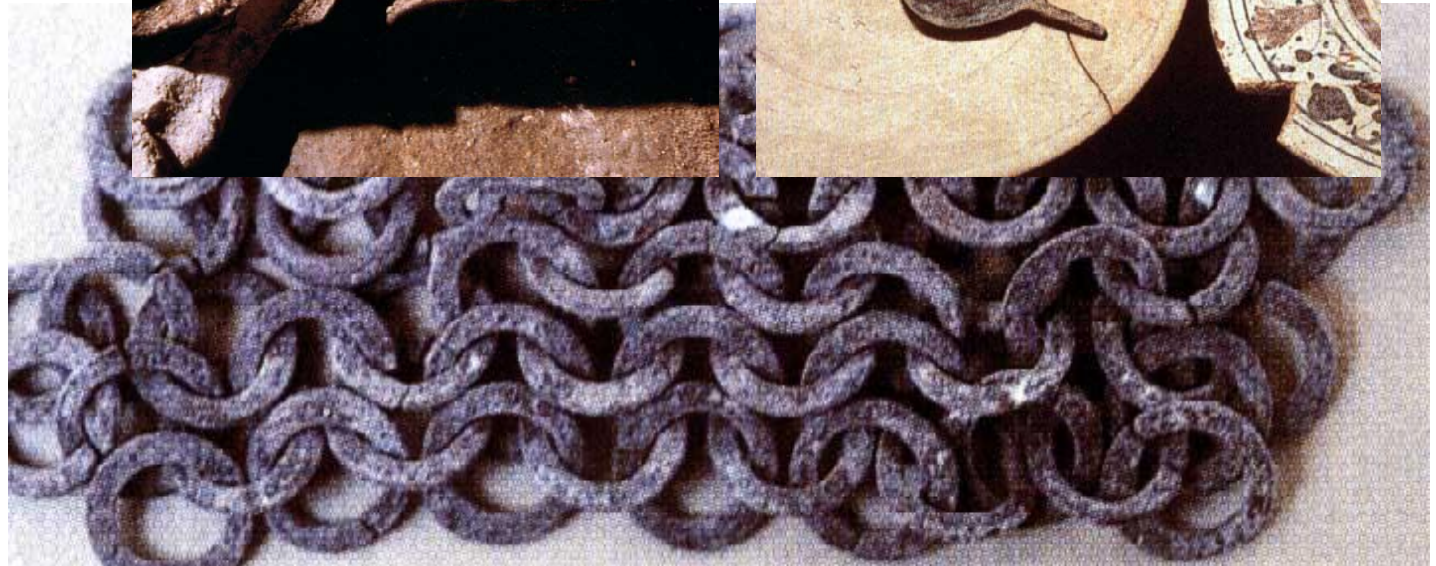
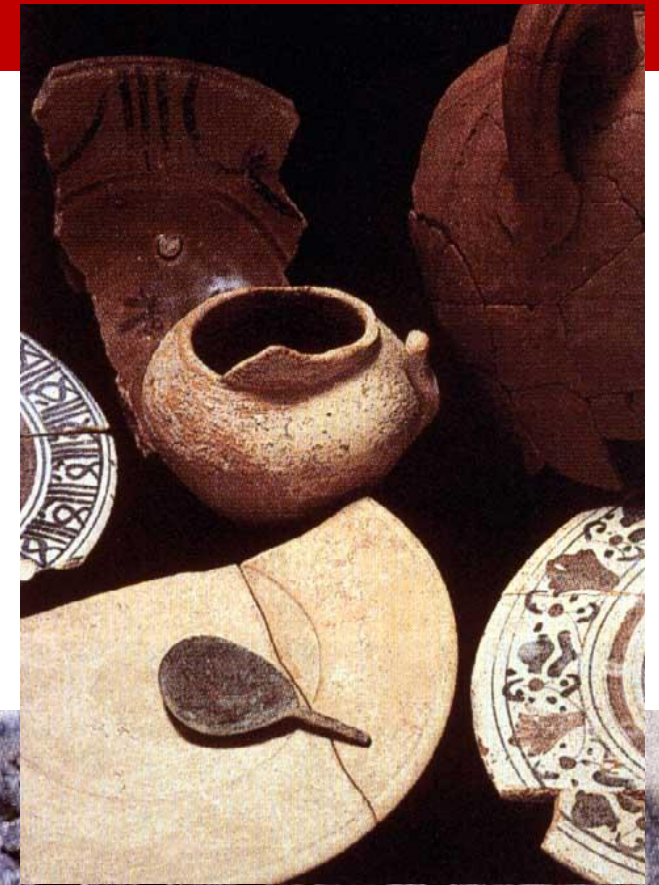
The ruins of La Isabela (located in today's Dominican Republic) have been excavated from 1987 on by a Venezuelan team later joined by the University of Florida.



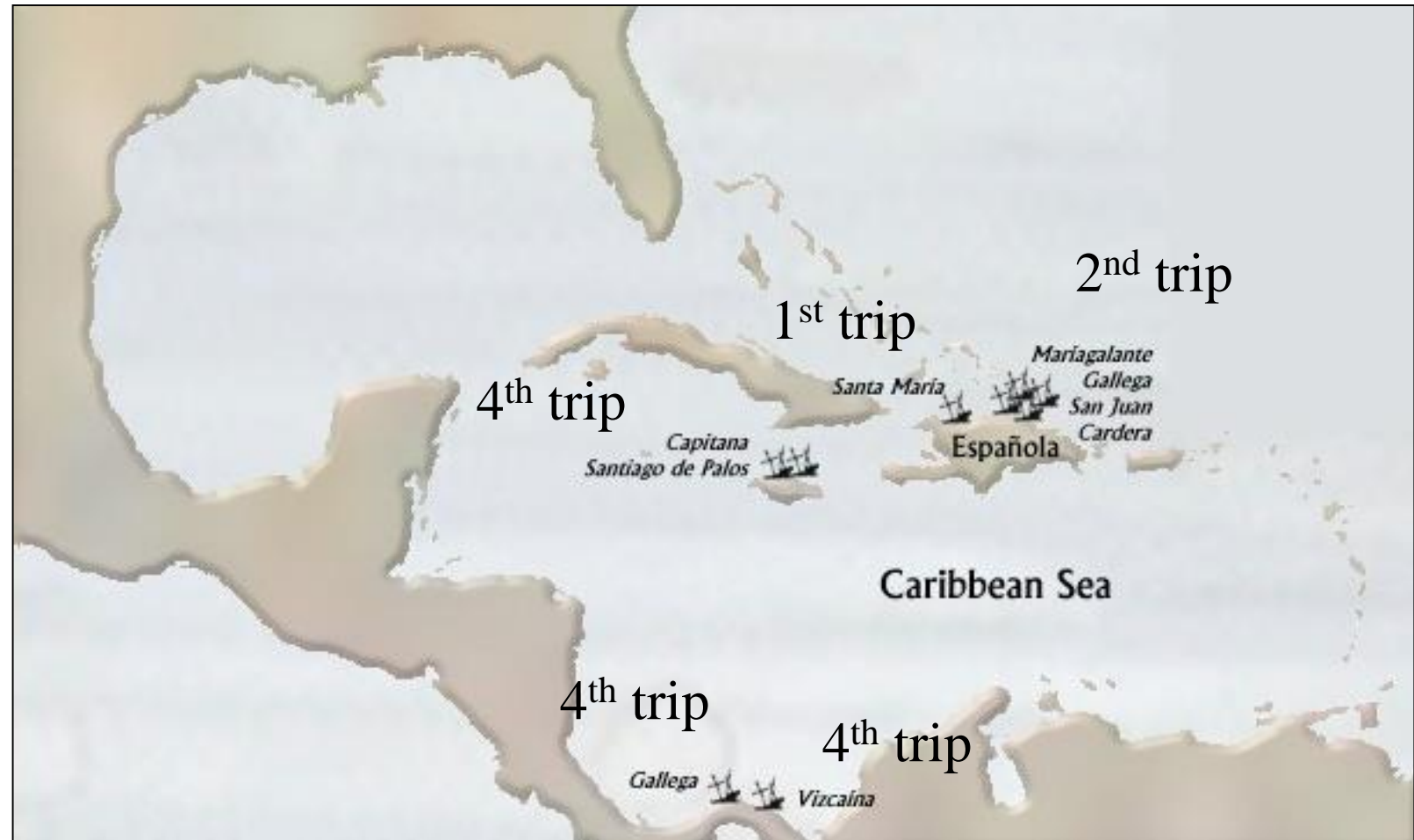
The fortified house
is thought to have
been Columbus'.



Artifacts were
found
throughout the
site, on the
other bank of
the river, below
the ravine, and
to the north of
the site.



Altogether, Columbus lost nine of his ships in the New World. Not one has ever been found.



Ships lost in the New World

1492/3 – Columbus (1st trip – 1 nao)

1494/6 – Columbus (2nd trip – 4 caravels)

1495 – Juan de Aguado (4 ships)

1498 – John Cabot (4 ships)

1498/1500 – Columbus (3rd trip)

1499 – Alonso de Hojeda (caravel)

1500 – Vicente Yanes Pinzon (2 caravels)

1501 – Gaspar Corte Real (caravel)

1501 – Cristobal Guerra (caravel)

1502 – Miguel Corte Real (caravel)

1502 – Rodrigo de Bastidas and Juan de la Cosa (4 vessels)

1502/04 – Columbus (4th trip – 2 caravels)

Questions?