

## **Facts about the caravel**

The caravel (or carvel) is a light sailing ship that the Portuguese developed in the late 1400's in order to explore the African coast. The name caravel is derived from the shipbuilding term carvel, which refers to the butting planks so that they form a smooth surface on the hull. This ship was used for the next 300 years.

Early caravels were usually two-masted boats of around 50 tons with an overall length of between 20–30 m and a high length-to-beam ratio of around 3.5:1 making them very fast and manoeuvrable. Towards the end of the 15th century the caravel was modified by giving it the same rig as a carrack with a foresail, square mainsail and lateen mizzen but, unlike the unweatherly carrack, the caravel did not have a high forecastle or much of a sterncastle. In this form it was known as the caravela redonda and it was in such ships that Christopher Columbus set out on his famous expedition in 1492; Santa Maria was a small carrack which served as the mother ship, and Pinta and Niña were caravels of around 20 m with a beam of 7 m.

The Caravel is the first and most famous ship of the European age of exploration. It gets its name from the shipbuilding term, carvel, which is a method of butting the planking on the hull so that the planks form a tight smooth surface. The early Caravels had all lateen or triangular sails and were very maneuverable, but later models such as those Columbus sailed in 1492 had both square and lateen rigging. The Nina and the Pinta were such ships sometimes called caravel redundas. With the square sail added these ships were both very fast and very maneuverable. Columbus's flagship the Santa Maria was actually an older and larger ship, a carrack. She was slower and less maneuverable than her sister ships, and this is said to have caused much grumbling among the sailors aboard in 1492.

The caravel comes at the very beginning of the age of sail and of exploration, and is the direct forebear of most European sailing ships. Caravels discovered America and sailed as far around Africa as China. Many Portuguese ships carried Jesuits to new missionary territory and brought back many wondrous tales and trade goods from the Far East and America.



## **Advantages of the caravel**

The caravel was much better than previous ships due to its ability to sail fast and into the wind. Caravel planking was much thicker, and they were broad-beamed ships with 2 or 3 masts (later, they had as many as 4) with square sails and a triangular sail. Caravels were around 65 feet in length and could carry up to

130 tons of cargo. Caravels were lighter and smaller than the future galleons of the Spanish (developed in the 1500's).

The caravel is a small and highly maneuverable ship which proved to be effective to the Portugese for exploration purposes beginning in the 15th century.

The carrack was considered state-of-the-art for later medieval naval exploration, but the carrack wasn't practical for all purposes of navigation. The caravel was useful for purposes that the carrack couldn't fulfill. For instance, the caravel was much more effective at inshore navigating due to it's small size and superior sailing accuracy in comparison to the carrack.

The caravel was needed to sail in uncharted coastal waters and up rivers that made the early caravels so small and maneuverable, and it was the addition of the square sails that made them so good for crossing the Atlantic and for exploring in the Indian Ocean. The Spanish also built ships of this design, but soon came to favor large and cumbersome galleons.



### Types of caravels

There were two main type of caravels. The more common one possessed lateen sails in a triangular shape. These sails allowed the caravel to skim quickly over shallow inland bodies of water. This type of caravel was extremely good at exploring rivers. The second type of caravel possessed square sails, which allowed it to take more wind, and thus increase its speed. Because of it's many uses, the caravel was regarded as the best sailing ship of its time.

### Fun facts:

Two of Christopher Columbus' three ships were caravels (the Niña and the Pinta).

In the popular computer strategy game Civilization 4, the caravel is the first ship that can be constructed to sail in ocean squares. The caravel requires knowledge of the technology Optics. The caravel has a strength of 3 and a movement of 3, and can carry scouts, explorers, missionaries, spys, or great people, and can't enter rival territory without triggering war.

### Citations:

(2001). Caravel: A Revolutionary and Sailing Ship. Retrieved August 28, 2006, from Enchanted Learning Web site: <http://www.enchantedlearning.com/inventors/page/c/caravel.shtml>

Caravel. (2006). Caravel. In Wikipedia [Web](http://en.wikipedia.org/wiki/Caravel). Retrieved August 29, 2006, from <http://en.wikipedia.org/wiki/Caravel>

Crandall, John (1999). The Caravel. Retrieved August 29, 2006, from Suite101 Web site: [http://transportationhistory.suite101.com/article.cfm/the\\_caravel](http://transportationhistory.suite101.com/article.cfm/the_caravel)

Johnson, S (Ed.). (2005). Sid Meier's Civilization 4. New York, NY: 2K Games.