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FIFTEENTH CENTURY SHIP H267



The Viking longship was a graceful, long, narrow, light wooden boat with a shallow draft designed for speed. Longships were fitted with oars along almost the entire length of the boat itself. Later versions sported a rectangular sail on a single mast which was used to augment the effort of the rowers, particularly during long journeys. Their shallow draft allowed navigation in waters only one metre deep and permitted rapid beach landings. However, their shallow draft meant they could not carry much cargo.

Left: The Oseberg longship, which has been dated to 815-820 AD, which was found in a burial mound in Vestfold south of Oslo, Norway.

To solve the problem of limited cargo capacity Norse merchants developed a vessel known as a knaar. The knaar was a square rigged, single masted trading vessel that relied solely on its square sail for propulsion at sea. It was broader and had a much deeper draft than the longship. The square sail rig gave the knaar a poor performance when sailing into the wind, though it also meant they could sail with a smaller crew. It was usually half-decked, that is, it had a deck at the fore and aft, under which cargo could be stored. It was steered using an oar over the side of the vessel. Knaarer routinely crossed the North Atlantic carrying livestock and stores to Norse settlements in Iceland and Greenland, as well as taking goods to the British Isles. A model of a knaar can be seen on the right.



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The next kind of ship to be developed was the cog. These ships were widely used from around the twelfth century. Cogs differed from the earlier style of ship in having a full deck and a stern-mounted hanging central rudder. In 1962 the wreck of a cog dating from 1380 was found in Bremen and the photograph on the left shows a working model built using information derived from this wreck.



Some cogs were fitted with fore and stern castles. These structures do not seem to have been a standard feature on merchant vessels, though they could be added for defence against pirates. They provided a platform from which archers could attack anyone trying to board the vessel. They would have been more common on cogs which were built or adapted for war. The picture on the right shows similar vessels taking part in the Battle of Sluys, which was fought on 24 June 1340, between England and France. At this date sea battles usually involved tying the two opposing fleets together to form fighting platforms over which armed foot soldiers skirmished, much as they would if the fighting had taken place on land.



In peaceful circumstances cogs were mostly associated with sea-going trade, particularly in the Baltic Sea region. These sturdy sea-going traders have been called the workhorse of the Hanseatic League. The Hanseatic League was a medieval alliance of trading guilds that established and maintained a trade monopoly in a network of towns from Novgorod in Russia to London in the west. The map on the left shows the main trading centres of the Hanseatic league. Cogs were used to transport everything from tar to fish, woollen cloth to corn.

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The model in this box shows many of the characteristics of vessels known as caravels. It retains the high fore and stern castles that featured on some cogs, but a second mast has been added, which is fitted with a lateen sail. Cogs were fast and manoeuvrable with the wind behind them, but they could make no headway into it. The addition of a triangular lateen sail helped to get around this problem, although the greater size of the lateen yardarm made it difficult and dangerous to handle on large ships in stormy weather.



In the summer of 2002 the well preserved remains of a mid-fifteenth century ship were discovered during excavation works for a new Arts Centre on the banks of the River Usk in central Newport, Wales (left).



Only the central section has survived and it is therefore not known how many sails this vessel may have had, but an artist's impression based on the available evidence suggests that it may have been very similar to this model (left). The discovery of a French silver coin deliberately embedded in the keel suggests that it was built in France, while items found on board indicate that it may have been trading with Portugal. It seems probable that this tough boat plied its trade along the turbulent waters of the east Atlantic. The Newport ship may answer a number of questions on the evolution of the trading cog/caravel, typical of North European vessels upon which commerce relied, and is contemporary with the first ships that explored the Americas and the coast of Africa.



The sixteenth century saw the development of the galleon, a longer, slimmer ship in which the forecastle was reduced, which lessened wind-resistance at the front. The number of sails was also increased. The drawing on the right gives some idea of this later transformation.