

The Secrets of Viking Ships

by ReadWorks



Today, the Vikings are mostly known as violent pirates and raiders. And it is true that Vikings did raid and destroy many towns and villages along coastlines, all the way from what is now northern Russia to Morocco. But the Vikings were also traders and merchants and didn't simply destroy things. They also built towns and markets of their own, including Hedeby, which in the 10th century had a population of 1,500, making it the largest trading town in northern Europe. At their height, the Vikings attacked, settled or traded on four continents. They were active all the way from Canada (they became the first Europeans to travel to the Americas) to present day Istanbul.

All of their travel, trade and warfare were made possible by Viking ships, which were far more advanced than anything else sailing around Europe at the time. The most famous, and most feared, was the *drekar*, or longship. At sea, these ships could move quickly thanks to their large sails. The hulls of the ships were shallow and fat, which made them ride high in the water. This meant they could be driven right onto beaches, where the soldiers would jump over the side to attack and plunder villages and cities. The ships were also light enough that they could be carried from one body of water to another over short sections of land called portages. This greatly extended their range. Several such *drekar* ships were found off the coast of Roskilde, formerly the capital of Denmark, between 1957 and 1962. The longest *drekar*

measured 119 feet long with a crew of 100 men and space for 72 oars. With its gigantic sail, shallow hull and so many oarsmen, the ship must have been incredibly fast and highly maneuverable.

But Viking ships weren't just built for warfare. Another type, called the *knarr* or ocean-going ship, had cargo holds built into the bow and stern. One such cargo ship discovered near Roskilde was capable of carrying 24 tons, or 48,000 pounds. The *knarrs* would have looked similar to the *drekar*s except they were longer, fatter and taller, and the space dedicated to cargo left less room for oarsmen. These were the backbones of the Viking empire, which they used to carry everything from gold coins to timber, spices and fine fabrics.

Both the *drekar* and the *knarr* were built using the same method called the clinker method.

Traditionally, oceangoing ships have used a keel, shaped like the fin of a fish. The keel sinks into the water below the hull. It helps the ship maintain a straight line through the water and counters the force of the wind against the sail, which otherwise might blow the ship over. Traditional ships are also built with ribs which function just like the ribs on a human being, starting at the spine and growing out in a curve to protect the space inside.

Using the clinker system, Viking ships had no deep keel. Instead they were built fat enough to carry lots of soldiers or pieces of cargo whose weight helped keep the ship planted in the water. The construction process started with a heavy piece of wood at the bottom. From there, oak tree trunks were split into long, thin planks. Two planks were fastened to the bottom piece, and then each plank was fastened to the one before it like overlapping shingles on the roof of a house. A massive beam was laid across the bottom to strengthen it and also to support the mast. Finally, crossbeams were laid inside to create a deck and benches for oarsmen to sit. The result was sturdy, fast and light.

Viking ships were so advanced for their time they often were the biggest, tallest and most striking ships many people had ever seen. The Vikings made them even more intimidating using bright colors and intricate designs. A monk at the St. Omer Monastery, in France, wrote this description of a royal Viking ship in 1013:

"On one side lions molded in gold were to be seen on the ships, on the other birds on the tops of the masts indicated by their movements the winds as they blew, or dragons of various kinds poured fire from their nostrils...."

The description makes clear that Vikings were not simple marauders. They built a wealthy empire through trade as well as plunder and used their wealth to continuously improve their ships.