History of ancient shipbuilding



Ancient Shipbuilding

Ships have been around for a very long time, dating all the way back to the ancient times. Each ancient civilization had their own methods, materials and ideas behind the invention and construction of these vessels. Although many of those ships have evolved and upgraded to newer and more modern versions of the ancient ones, a lot of archaeologists have proven the designs to be derived from the ancient people. The Greeks, Romans Egyptians, Indians and Chinese all contributed to the history of shipbuilding and many of these vessels and historic establishments can still be seen today in their original and modified forms. Although, ships are vessels that are used to transport people and goods across bodies of water, they can also sometimes symbolically represent abstract ideas and myths concerning sun gods and explain ways of passage through the sky and the underworld.

The earliest findings of shipbuilding can be dated back to as early as 3100 BC. Evidence from ancient Egypt shows that Egyptians knew how to assemble planks of wood into ship hulls. Egyptian pottery also showed designs of early boats and other means of navigation suggesting proof of earlier construction . The Archaeological Institute of America reports that some of the oldest ships are yet to be unearthed and are known as the Abydos boats. They are a group of 14 ships discovered in Abydos. These ships were constructed of wooden planks which were "sewn" together. Woven straps were used together to lash the planks together and reeds or grass stuffed between the planks helped to seal the seams. Since the ships are all buried together and near a mortuary belonging to Pharaoh Khasekhemwy, they were originally all thought to have belonged to him.

However, that wasn't the case, one of the 14 ships dates back to 3000 BC. The ship dating to 3000 BC was about 25 m, 75 feet longand is now thought to have belonged to an earlier pharaoh. According to Egyptian beliefs, the soul of the dead accompanied the sun on its eternal journey in the heavens around the world. Due to this a boat or at least a model of a boat was included in every tomb. Some considered them only to be included for pharaohs and considered the Abydos ships to be of such sort. Early Egyptians who did ship building for transport and small purposes also knew how to assemble planks of wood with treenails to fasten them together, using pitch for caulking the seams. The Egyptians also had symbolical solar bargues which translates to sun or solar boat. They were mythical boats used by the sun gods. The supreme sun god Ra reigned over the earth but when the humans revolted against him, he abandoned the earth and ascended into the sky to reign over them in the form of the sun. Ra would travel through the sky each day in a solar barque called the Atet through sunrise to noon. After that from noon to sunset he would travel through the realms of the underworld in the evening sun barke called the Sektet. The" Khufu ship" is an excellent example of what may have been the symbolic function of a solar barque. The Khufu ship is an intact 43. 6-meter vessel sealed into a pit in the Giza pyramid around 2500 BC and it was built for Khufu/ King Cheops. Khufu's ship is one of the oldest, largest, and bestpreserved vessels from antiquity. It was identified as the world's oldest intact ship and has been described as "a masterpiece of woodcraft" that could sail today if put into the water.

The Greeks also spent a lot of time sailing, so much that they told a lot of stories about their adventures and dangers at sea. Many Greek poets wrote about tragedies, one of them being Homer. Homer told the story about Odysseus's ship wreck upon leaving troy and about Dionysus who turned pirates into dolphins. These ships and all the other Greek ships were built by Greek builders who built their ship from the outside in, first the exterior than the interior. The ancient Greeks made many warships and one of them being called Trireme. Trireme translated from Latin means " with three banks of oars" and that's because it had 3 rows of oars each manned with one man. The trireme was an ancient vessel and it was used by the Romans and Phoenicians, along with the Greeks. It was a development of an earlier warship called the Penteconter, which had 25 oars on each side. The materials from which the trireme was constructed were an important concept of its design. The three preferred timbers included were fir, pine, and cedar, but the choice in timber depended on where the construction took place. Another strong type of timber is oak, which was primarily used for the hulls of triereis to withstand the force of being hauled to shore. It was crucial to ride the triereis onto the shore because there was no time to anchor the ship during war and with their enemies surrounding them. The joints of the ship needed wood that was capable of absorbing water but not dried out to the point where no water could be absorbed. There would be gaps between the planks of the hull when the ship first sailed, but once they were submerged with water the planks would absorb the water and expand forming a watertight hull. The crew would normally consist of 200 men, 170 of them would be rowers who provided the ships manpower. The ship's captain was a wealthy Athenian citizen responsible for manning, fitting out

and maintaining the ship and the ship itself belonged to Athens. Although
the ship required a lot of maintenance and manpower it played a vital role in
the ancient Maritimes.

While shipbuilding consists of many different shipbuilding methods, traditions and industries. Shipyards, Tide docks and clocks were all a part of maintaining and navigating these vessels. A tide clock is a specially designed clock that keeps track of the Moon's apparent motion around the Earth. The Moon contributes the major part of the combined lunar and solar tides along many coastlines. The exact interval between tides is determined by the position of the Moon and Sun relative to the Earth and the specific location where the tide is being measured. For this reason tidal docks were created. The oldest known tidal dock in the world was built around 2500 BC during the Harappan civilization at Lothal which is near the present day Mangrol harbour on the Gujarat coast in India. The port connected the city to an ancient course on the Sabarmati river on thetrade routebetween Harappan cities in Sindh and the peninsula region of Saurashtra. This was when the surrounding Kutch desert of today was a part of the Arabian Sea. Ships from the harbour at these ancient port cities established trade with Mesopotamia which goes to indicate that Shipbuilding and boatmaking may have been prosperous industries in ancient India. Native labourers may have made use of and produced the fleet of boats used by Alexander the Great to navigate across the Hydaspes and even the Indus. The history of Indian shipbuilding started since the time of civilization of the groups of Harappa and Mohenjo-Daro. The documents and descriptions about the variously termed parts of a vessel are in one of the 4 Hindu holy books that are written in Sanskrit, the

oldest existing Indian language . Other detailing is also found in various types of ancient Indian folk-lore. Since the boats of that era were built of wood, there were strict specifications and protocols for the materials to be used. The shipbuilding industry in India was mainly carried on in the coastal territories like Bombay, Cochini and Cuddalore. The ships and shipyards that existed in Ancient India carried out and furthered the existing international trade with the European empires that existed at that time. The Indians also exported teak a type of timber for shipbuilding to ancient Persia.

China also had shipbuilding in the ancient time and the naval history of China dates back to the ancient Chinese Zhou Dynasty, which was between 722 BC and 481 BC. The Chinese built large rectangular barges known as " castle ships", which were essentially floating fortresses complete with guarded ramparts and multiple decks. They also built ramming vessels as in the Greek and Roman tradition. In the Mediterranean at a several hundred years BC the Malay people invented junk sails, which were made from woven mats reinforced with bamboo. They started building these ships in about 1st century AD because they were seafaring long ships which in English translates to "junk" ship. The term junk can be used to cover many kinds of boats, ocean-going, cargo-carrying, and pleasure boats. Seafaring jogs used two different types of sail in the building of their ships, the junk sail and Tanja sail. Classic junks were built of softwoods and the outside shape was built first and then the interior structure was built in with bamboo. The hull was a horseshoe-shaped stern supporting a high poop deck and the bottom was flat, so that the boat depends on a large rudder to prevent the boat from slipping sideways in the water. Ocean going ships have a curved hull and

have narrow water lines that account for their potential speed in such conditions. They all vary greatly in size and large ships were about 50-60 meters (164-197 ft) long, had 4-7 meters tall freeboard. They could carry provisions for a year and could 200-1000 people. This type of ship was much preferred by travelers

Taking a look at all the different types of ancient civilizations we can see how each of these have their own way of building ships and for different purposes. Some were created for the purpose of funeral rituals and symbolically as a way to show passage through the sky and heaven. Others were used to conquer lands and fight wars like in the Greek myths where Odysseus travelled to Troy or when Aeneas left Dildo to go found a new city. Each of these ships deferred in how they were made and how strong or powerful they were created. Some civilizations such as the Ancient Indians contributed with the first ever tide dock and other advancements of ships stemming from Alexander the great's fleet of ships, along with international trading of shipbuilding materials. All these designs and shipbuilding patterns and materials can still be seen in today's ships with the advancements and new technology humans have used.

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