Hawaiian Outrigger Canoe

My partner Nick Bunn and I studied a boat model at the Peabody Museum last week. The only information that was listed about the model was that it was of Hawaiian origin. I took many pictures of the model, some of which are attached at the end of this report. I also found more information about the model on the card that documented the arrival of the model at the Peabody Museum. The model was donated by Dr. L. Cabot Briggs in 1951; Briggs’ father acquired the model in 1882 in Honolulu. After further research I was able to draw several conclusions about the ship that the model is based on. The ship was likely 20 – 30 feet long, and was used primarily for deep-sea fishing but could also be used for short voyages to nearby islands.

More than two thousand years ago the Polynesians had an advanced sailing culture; they were the most accomplished sailors in the world at the time. They were able to sail across vast swathes of the Pacific using celestial navigation (Dodd 50). Polynesians sailed across the Pacific in large double hull voyaging canoes, some more than one hundred feet long. It is most commonly believed that Polynesians from the Marquesas Islands arrived in Hawaii in these voyaging canoes around 500 A.D. (Dodd 165). Polynesians also built massive double hull war canoes, Cook measured one in Tahiti to be 108 feet long (71).

Although the twin hull canoes have been the most thoroughly studied, the single hull outrigger canoe was the workhorse of Polynesian society. Our canoe is an example of the single hull outrigger design; it had a very narrow beam, with barely wide enough for one person. It was
not meant for overnight voyages, it had no sleeping area and was lightly built. The outrigger made the canoe much more seaworthy. It was able to provide stabilization that prevents the boat from capsizing. The boat also had a mast and sail, the mast stood in the main hull next to the forward outrigger brace. The boat also had two paddles, indicating that it could be effectively paddled if it was becalmed. Therefore, the boat was large and sturdy enough to brave the open ocean, but only for short periods of time. It was likely used as a fishing boat, and perhaps for transport around the Hawaiian Archipelago.

The main hull of the boat is constructed in two main sections. The bottom inch of the model represents a dugout hull. The bottom of the hull was a single tree hollowed out, the scraping from the hollowing out process is visible in the interior of the model. The top of the hull is made of planking. This method of canoe construction is uniquely associated with the Polynesians (Anderson 760). The canoe also had two outrigger struts on the starboard side. On each strut there is wrap of braid. This braid was likely where the lines supporting the mast were led to in order to give the mast lateral stability. Oddly, there is no projection outside the main hull on the port side. In all of the pictures of single hull outrigger canoes in Dodd’s book the canoes have the outrigger struts on one side, and a smaller strut on the other. The purpose of this strut was to provide another support point to run a line to the top of the mast.

There were no nails or bolts on the boat, everything was lashed together. These lashings were made of sennit braid (Hornell 225). The lashing holes were then covered with breadfruit pitch in order to minimize leakage. Feinberg suggests that skilled Polynesian craftsman on the island of Anuta drilled holes that did not go all the way through each plank. They then used these holes to fasten the hull together, this method results in less leakage than drilling all the way through each plank (40).
In our model it appears that all of the holes were drilled all the way through each plank. However, it is unclear if this was the case for the real boat. Because of the small size of the model it would have been impossible for the builder to fasten the planks together without drilling all the way through the planks. Hornell suggests that models of other Polynesian canoes have been unreliable. They were often made to be toys or to entertain visitors, rather than to preserve the historical record of the ship inn question (225). Because of this uncertainty, the drawings presented in Dodd’s book are probably the most accurate representations of what our boat was actually like.

It is impossible to provide much specificity as to the date of our ship. Polynesian shipbuilding methods did not change very much, and that is especially true for small ships such as ours. All we know for certain is that the ship was built after the settlement of Hawaii in 500 A.D. and before 1881.
Works Cited


