There are many different approaches marine archaeologists use to interpret and understand a ship, whether it be on the bottom of the ocean or a model as we have in this case. Comparative analysis and historical records as presented in my last blog post give us a great background for the model, one we can use in combination with other methods to learn even more. One of the main approaches used by marine archaeologists is looking at the style in which the ship was constructed. While it is often hard to view a ship in its entirety through an underwater excavation, identifying specific features of the construction style can help us further answer a number of questions regarding the model. Information regarding observable structural details of the model can help to provide us with a clearer picture of the story behind this the boat this model represents. It is within the context of these specific structural details such as its base composition, fasteners, unique details and size that allow an updated claim to be made regarding the model: the boat appears to certainly be a localized, daily fishing vessel constructed and operating within either a single or multiple island community.

Within the context of looking at shipwrecks, marine archaeologists often struggle to identify key composition features due to the surrounding environment in which shipwrecks are located. Often searching for main construction features such as the keel, stem, and stern can be incredibly hard to find as a result of deterioration or features of the wreck being buried. It is with this respect, that we have it very lucky as the model is sandless, allowing us to observe specific features of its base composition. While many ships would have a more distinctive keel, the model’s entire lower half is comprised of a dugout tree canoe, which is then connected to vertical
planks to make up the remaining structure. As a result of this setup, we see the bottom of the boat to be more flat and having a shallower draft, meaning that the boat sits high in the water. This indicates that the boat was likely to encounter shallow waters and could easily be landed, pulled onto a beach effortlessly before returning to the sea. In regard to the main body structure of a vessel, marine archeologists often will look comparatively at the stem and stern of a boat for further information regarding the ship’s purpose. Within the model, the stem and stern are symmetrical on their attachment to the base, with their connecting planks making the stem marginally narrower. The boat is without a distinctive stem post, its front consisting of a narrow, wider plank compared to a traditional post-like timber. The slight narrowness of the stem compared to the stern is likely for added speed, but the lack of a stem post tells us that speed was not a primary concern to these specific sailors. Further, this flatter front (below) would have additionally aided in the beach landing process as the boat would slide over the sand as a modern day kayak would, rather than trying to dig in and cut through it.

While we were able to look at the base composition of this model, underwater excavations focus on smaller details as they are easier to collect and analyze. Fasteners, the method in which
the boat timbers are connected, is a popular source of interest for archeologists. From observations of our model, the fasteners of the main body appear to be made of string, sewing together the pieces of wood. This method represents a unique construction of boat, the sewn boat, in which pieces are either directly sewed together or connected through a mortise and tenon, Ikea-esque fashion in which a peg connects two holes. In this case, the joint is then secured in place with rope, keeping the pieces together. While models can in some cases differ from the boats they represent, this model deviates rarely, the fasteners appearing directly on the model (below) as well as in the archival records of similar boats.

![Photo By Author](image)

These fasteners indicate that the model represents a boat that could be fixed cheaply and by the crew. Further, the volatility of this construction technique suggests that the boat remained within the area it was built as the fasteners could not handle the roughness of the open sea.

As I touched on in my previous blog post, this model contains many unique elements from similar ships within its supposed geographic region. These unique structural elements can provide us with more information. The rudder (below), one that appears on the longer side for
the size of the boat, extends through a hole near the stern of the model rather than hanging off the back of the boat as others might.

As this limits maneuverability, this suggests that the boat did not have a high priority on steering, only needing general heading for its usage. The boat was propelled in tandem using a single sail and oars. This gave sailors a consistent, versatile means of sailing and allowed for the boat to be used regardless of the surrounding variable weather conditions. Another unique aspect of this model is its seemingly limited size. The main boat is on the narrower side, indicating it was likely worked from anywhere from two to four workers. The size also provides further evidence for the time sensitive nature of voyages. The limited space on board does not provide living conditions and the cargo space is almost none, suggesting that any provisions were minor and the ship could not sail for more than a day.

It is in looking at the construction style of this model that we begin to unveil the true story of the boat it is representing. While the picture is not fully clear yet, construction styles allow conclusions to be made that the boat was certainly a daily fishing vessel. The shallow draft and flat stem allow the boat to navigate shallow waters of the islands during the day, and ease in the beach landing necessary to sell the fish once the catch has concluded. As a result of this
beach landing and the general nature of fishing before sonar, the rudder’s capabilities only needed to put the boat in general directions, which explains its limited maneuverability. In terms of propulsion, the combination between oars and sails were significant in their ability to consistently allow for fishing, something needed for both fishermen and the economies of islands. Additionally, the fastener style meant that the boat was a daily, local vessel and would not leave the calm waters of the islands, an argument that was strengthen by the limited sizes of boats. This sizing, however also provides a counter argument, suggesting that the boat could not be a fishing vessel with such limited cargo space. However, upon looking into historical records, fishing vessels would often net their catches, keeping them tied to the side of the boat until they reached beaches where they could be pulled in by hand. The model actually represents this action, showing pieces of string tied to support for no structural advantage (below). As a result, it is almost certain that this model represents that of a fishing vessel located within a subset of islands somewhere in the Polynesian vicinity.
References:
