

## Using Polymer Clay for Your Ship Model Ornamentation

You have probably marveled at the carving skills of 18th century masters when visiting a naval museum. I am sure you have admired the intricately carved details of A FIGUREHEAD. Some ship models have an abundance of finely carved and elegant scroll work. Sometimes these elements are gilded or painted or left in their natural state. One of the most intimidating aspects of ship modeling is how to approach carving these details. One alternative might be to sculpt these details rather than carve them. Sculpting a figurehead from polymer clay affords you the opportunity to continually tweak your work before curing it. When carving out of wood, a mistake can be much more difficult to fix. It usually requires that you start over rather than remedy the situation. Wood can easily split and crack and adding additional wood material to correct a deep gauge or misplaced cut would certainly show up on an unpainted figurehead.

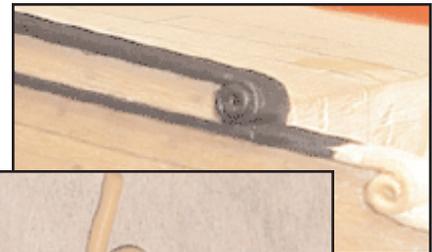
I recommend experimenting with some Polymer clay like SCULPEY or FIMO. These clays come in a variety of colors that can be mixed. Sculpey also comes in metallic colors like gold and bronze and after being baked the ornamentation would not need to be painted. The gilded effect is quite nice and the most intricate details are not lost by painting them. In the case of Sculpey there are several grades of clay that have a different sculpting texture and consistency. You should choose the right clay for your application on the ship model. I regularly use Super Sculpey or Sculpey III. Super Sculpey comes in a limited color palette but is great to use when very fine

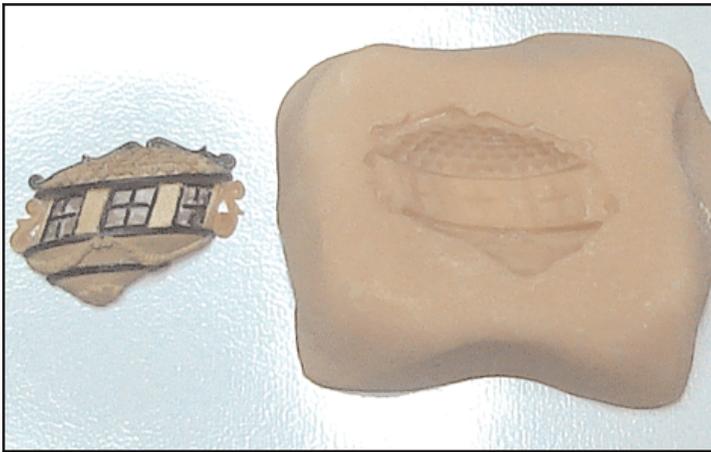
detailing is required. This clay is baked in the oven until it hardens. After it cools down the clay can be sanded, drilled and carved. It can be painted and accepts stain as well.

**SculpeyIII** – Comes in dozens of colors including metallic. Is less brittle after baking. However it captures less fine detail. Remains somewhat flexible after baking.

**Super Sculpey and Super Sculpey Firm** - Much better for fine detailing. More brittle after baking.

**Scrolls/volutes for my 3/16" scale model of the schooner Sultana**





Only comes in Flesh tone. But easily stained. The firm type only comes in dark green and is also brittle if baked to long or very thin pieces are made. Can be mixed with SculpeyIII to make it more flexible and easier to work with.

The tools needed to sculpt the ornamentation and figureheads for a model are no different than any other sculpting tools you might find in an art store. They just need to be smaller. Some folks will use dental tools to good effect on small miniature sculptures. Dentil picks with varying sized tips can be bought on EBAY very cheaply. Overall the tools are very inexpensive and many can be home made. Wooden dowels can be tapered and shaped to suit. Shown on the previous page are some typical tools. Those with the different shaped open loops are used to remove clay from your piece rather than push it around and texture the clay's surface.

Some people prefer softer clay to work with and there is a clay softener available from Sculpey. Just a drop or two on the clay while kneading it with your fingers will soften it up considerably. Softer clay will not hold details as well as firmer clay. If the clay begins to get sticky and difficult to work with simply dipping your tools into water will take care of it. Some sculpter's prefer to use corn starch much like a baker would use to prevent the clay from sticking to your tools. This will be important should you decide to create a push mold. You can quickly duplicate your carved pieces using one. Gun port wreaths and scrollwork can be precisely molded and dozens of copies produced.

To produce the push mold just prepare a piece of SculpeyIII a little larger and thicker than the piece to be duplicated. Coat the original with corn starch or brush it down with water to prevent sticking. The same should be done with the surface of the Sculpey you will be pressing the original into. Press the original into the clay firmly and then remove it. Be careful not to distort the unbaked mold while removing the master. Bake the mold to cure it. Just like anything else Sculpey can

burn if baked for too long so adjust the temperature and time according to the directions given by the manufacturer. With the mold completed it is a snap to create multiple copies of your original. Coat the mold as mentioned above with corn starch or water and then push some uncured Sculpey into it. Remove the Sculpey carefully and you have a perfectly formed duplicate. Trim off any excess clay and bake it.

This is the technique I used to create the quarter badges for my model of the US Brig Syren 1803. It was easier to fabricate the original with mixed media. Wood, wire, clay and whatever else I could find lying around was used to make the master shown in the photo provided. It doesn't look pretty because of the colors and textures on the original piece. So I took that master and created a push mold. The photograph on the right side shows the molded badge after it was stained several times. I used the same wood stain that was used on the hull planking. Super Sculpey was used. Its pink, fleshy color was a great undercoat and it took the stain pretty well. You will probably need to use many coats of stain to get the deeper shades you desire. The window panes were painted black afterwards. You can see the color does match the surrounding planking and the surface of the badge different than if you painted it

It would also be good to point out that polymer clay can be baked more than once. When creating larger or more complex pieces it is best to complete it a portion at a time. For example, if you were creating a figurehead you could sculpt the torso first and then bake it. This will prevent the torso from being damaged or altered. Then you can add the head and arms to the piece afterwards because the torso will now act as a strong foundation to build upon. Then bake it again. Then add some more details and bake it yet again. This stepped approach will give you some flexibility. The completed sections can still be sanded and carved if they need to be worked on. Preparing the figurehead in increments this way will alleviate the need for any wire framing to make it structurally stronger before baking it.



I have included some pictures of the Syren figurehead for my model illustrating this technique. The torso was actually rough shaped on the stem of the model. It was removed from the stem and then baked. I repositioned it back on the stem and the head was added. I used some clay softener on the joint between the cured torso and the uncured head. I applied it with a paint brush which made it easier to blend the two pieces together. Then I baked it again. The same methods were used to add the arms and then finally the mermaid's tail.

I hope after reading this introduction to polymer clay you might give it a try on your own ship model. There are a large number of websites and forums devoted to sculpting with polymer clay. A simple search on Google for the keywords "polymer clay tips and techniques" or "sculpting miniatures with Polymer clay" will yield hundreds of advanced techniques. Polymer clay is a very versatile and acceptable material for many of our ship modeling needs.

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