Finding (Captain) Nemo



Building Disney's classic "20,000 Leagues" *Nautilus*

By Phillip Gore

In 1954, Walt Disney Pictures launched its big-screen adaptation of Jules Verne's classic adventure novel, *20,000 Leagues Under the Sea*. The landmark film was Disney's first full-length, live-action feature, and starred Hollywood heavyweights Kirk Douglas, Peter Lorre, and James Mason. The classic adventure film was a commercial success and claimed two Academy Awards.

Even 50 years after its release, Disney's "20,000 Leagues Under the Sea" is visually stunning. The centerpiece of its special-effects crown is undoubtedly Captain Nemo's menacing *Nautilus* submarine, designed by Harper Goff. For years I've wanted to add a model of Disney's *Nautilus* to my model collection, and I was thrilled to find a multimedia kit in Sci-Fi Matters' online store (www.scifimatters.com). The impressive resin-and-white metal kit is 1/70 scale, and a little more than 30" long.

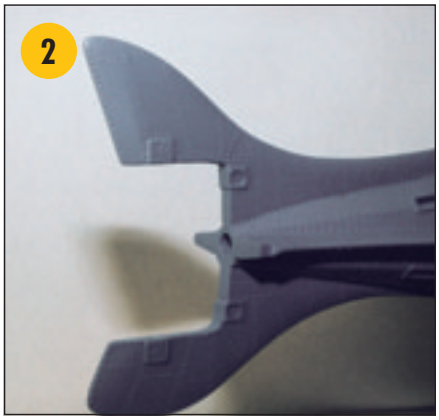
The hull

The model has 19 cast-resin, 44 white-metal, and 22 clear vacuum-formed parts. The two largest parts are the resin upper and lower hull halves. Although the surface detail on the hull halves is amazing, a fair amount of "elbow grease" is required to correct many small imperfections. Several areas had deep scratches that required repair with gap-filling super glue. Sanding away the excess glue also removed much of the model's prominent rivet detail. Every place a rivet was removed, I drilled a small hole and added a new rivet using five-minute epoxy. A large number of rivets were lost around the outer edge of the side keels and had to be replaced, **1**. All in all, I replaced nearly 1,300 rivets on the upper and lower hull.





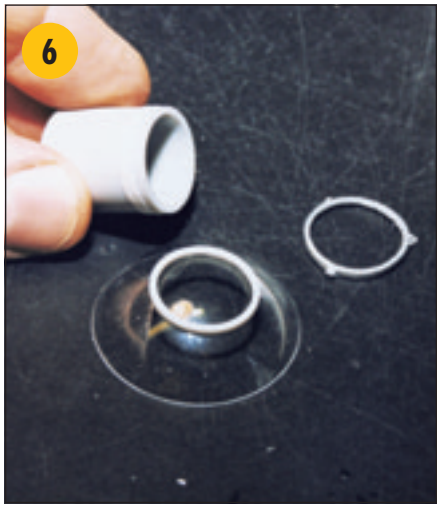
Filling and sanding during construction removed a lot of the model's rivet detail.



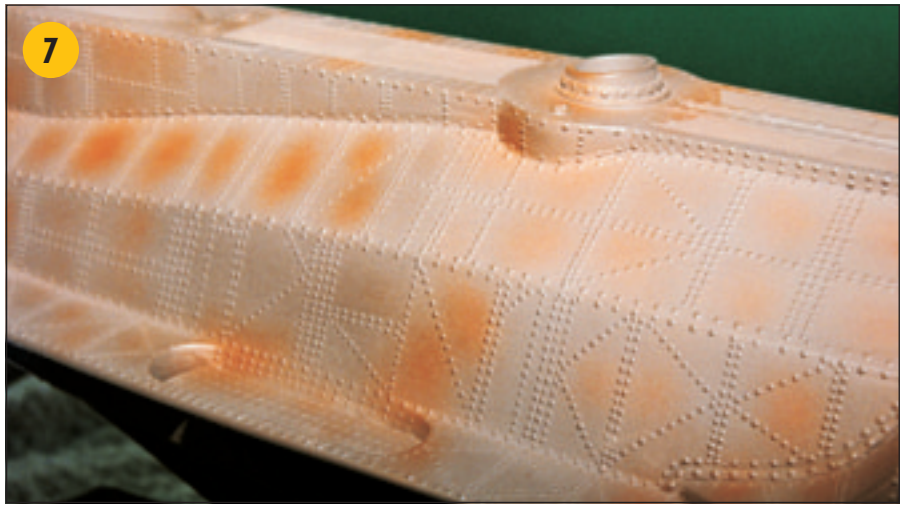
Considerable filler was required at the rear of the hull near the propeller shaft.



Small-diameter brass wire made great-looking ladder rungs on the bridge.



Phillip cut the prominent salon-window parts from a styrene cylinder.



A lightened coat of rust applied to the model breaks up its monochromatic paint scheme.





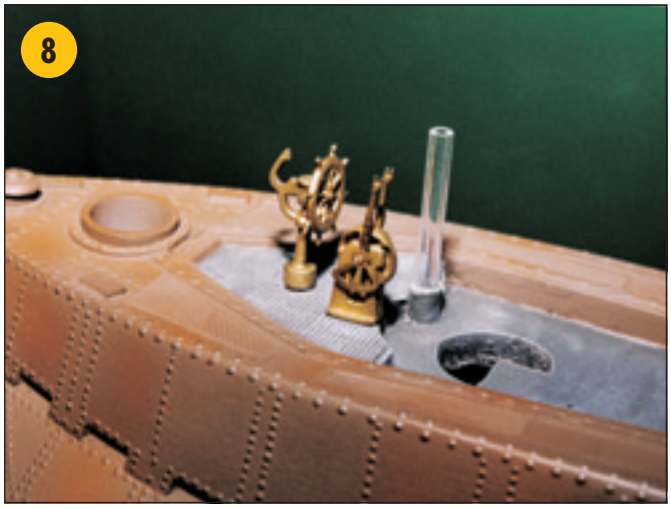
Black pastel powder helped bring out the model's prominent rivet detail.



The kit's white-metal detail parts needed clean-up work.



A little extra effort turned the rough detail parts into gems.



The bridge interior parts are clearly visible through the ship's "eyes" and are worth the extra work.



Many of the kit's smaller detail parts required cleanup before installation.

Once the upper and lower hulls were mated, I added the salon window frames and the white-metal bow ram. A lot of sanding and shaping was required around the propeller shaft area to create a seamless joint, **2**. After this was complete, I gave the entire hull a heavy coat of Testor Model Master primer. I usually don't prime the models I build, but it did make it easier to detect small flaws and helped smooth the surface finish.

Bridge duty

The main section of the bridge is an impressive casting, although test-fitting it to the hull revealed a slight warp along the bottom edge. I corrected things by placing the bridge in boiling water for 10 seconds, then pressing it on a flat surface until the resin cooled. Next I airbrushed the inside of the bridge and the two interior side-panel parts with Model Master metallic gray. A little dry-brushing with Model Master light ghost gray helped accent the delicate molded-in detail. I installed the bridge "scales" with five-minute epoxy. I gave the assembly a heavy coat of Model Master primer, then added ladder rungs I made from small-diameter brass rod, **3**.

Nearly all of the white-metal parts required some measure of filling and sanding to improve their appearance and fit, **4**. A little extra effort made them turn out really well, **5**. The only kit parts I replaced with scratchbuilt parts were the four tie-down bitts and the two salon-window outer frames. I made the round centers of the salon-window outer frames by cutting thin sections from a plastic cylinder, **6**. I made the three outer braces from thin Evergreen styrene strip, after the vacuum-formed domes were installed.

The color of rust

The whole exterior of the model should be rust colored. Simulating rust with paint is more difficult than it sounds, since rust generally isn't a single-tone color. I realized from the start that the final paint job would make the difference between a good model and a great model. I started the paint job by apply-



Phillip's methodical painting and weathering work gave his model a realistically weathered finish.



Vacuum-formed "craft eyes" provided a variety of clear-plastic bubbles for the bridge and salon.



Phillip used white glue to attach the delicate clear-plastic windows.

ing a base color. The kit instructions recommended a mixture of Model Master European I gray, rust, and black, which produces a dark chocolate color. The next step was to randomly apply a lightened rust overspray, **7**. I painted and installed the bridge's interior parts (handwheel, elevators, and float tube) so I could attach the bridge permanently, **8**. Other hull details (the dorsal fin, rudder, and front raker) were cleaned up and modified, too, **9**.

To finish the exterior, I used a soft-bristle brush to apply black pastel chalk powder over the rivets, **10**, **11**. I rubbed the entire model down with a well-worn T-shirt. Both of these steps were critical in producing a realistically weathered metallic finish. Adding the pastel chalk gave depth to the detail areas, and the soft-cloth rubdown helped soften the appearance and make the effect more subtle. The surface details were highlighted with a careful dry-brushing with Model Master dark ghost gray and light ghost gray, **12**.

Final assembly

Now I added the remaining detail parts, including the shaft, propeller, propeller guards/supports, speed screw, hatches, cleats, bollards, rudder, dorsal fin, and skiff. Adding these items wasn't that difficult, since I'd taken great care to make sure they would fit before painting. Next I cut the four main vacuum-formed bubble windows from their backing sheet and attached them to the salon and bridge with white glue. I made all of the smaller windows around the salon/bridge area using "craft eyes," commonly used on dolls or stuffed animals, **13**. After I cut open the eyes and test-fitted them to the model, I painted the inside of each lens bright yellow. This simulates interior lighting and brings a little color to the model, too, **14**.

The display base consists of two support braces attached to a stained wood plaque with hidden set screws.

After so many years, I finally had a Disney *Nautilus* in my collection. I think Disney's Harper Goff and the special-effects technicians who worked on the film would be proud to know their creation still brings joy and inspires modelers nearly 50 years later. **FSM**



Although Sci-Fi Matters' kit is no longer in produciton, copies can still be found on online auction sites and at swap meets.