Having it both ways



The sleek *Charles F. Adams*-class guided-missile destroyers had always been my choice for "most beautiful ship" in the U.S. Navy, and the USS *Semmes* (DDG-18) was very familiar to me. I had recently completed my military service as a medical officer on the Destroyer Squadron Six staff and still had pleasant memories of sea cruises and liberty calls, many of them aboard this ship. This was going to be a special project.

I was holding a newly carved wooden hull in my hands, turning it this direction and that, trying to visualize the finished model. The problem was that I saw two models rather than one.

The vision of the graceful hull with the sonar dome and bilge keels, **1**, as well as the screws and rudders, **2**, drew me toward the idea of a solid-hull ship model mounted on a varnished base in the classic tradition. But, I also saw an equally appealing image: a waterline diorama with the ship in its natural element and the crew going about its duties on deck.

I fancied the *Semmes* at anchor in a tropical lagoon with boat booms swung out and accommodation ladders extended, **3**. I could just imagine the liberty boats plying from ship to shore like water beetles and a small sailing craft pitching and bobbing alongside the ship with locals selling trinkets to the crew, **4**. All of the figures would be placed so that they would not be visible from the "solid-hull" side.

Into the water

Both visions drew me equally, so I decided they must be combined. I started with some scrap cardboard and through trial and error, cut a shape that would represent the water's surface for a diorama story. I fashioned it so that when I slipped it around the hull from below, it fit snugly at the waterline, surrounding the ship at the bow and stern. This shape also allowed for an open side, from which the ship's underwater details could be seen. I set the cardboard pattern onto a piece of 3⁄16" acrylic sheet, cut it to shape, and set it aside while I built the model.

Back aboard

My destroyer evolved from an old Ship Model Shop custom wood-ship kit. It contained the basic hull and superstructure shapes along with cast-metal fittings for the gun mounts, rocket launchers, gun director, and other small details.

I added a considerable amount of scratchbuilt detail to the wood shapes. The bridge was fabricated with a complete interior from styrene sheet. I vacuum-formed the stack caps and hollowed out the stacks. The most difficult part of the model was scratchbuilding the SPS-40 and SPS-52 radars, but I particularly enjoyed making the crew figures from copper-wire armatures filled out with putty.

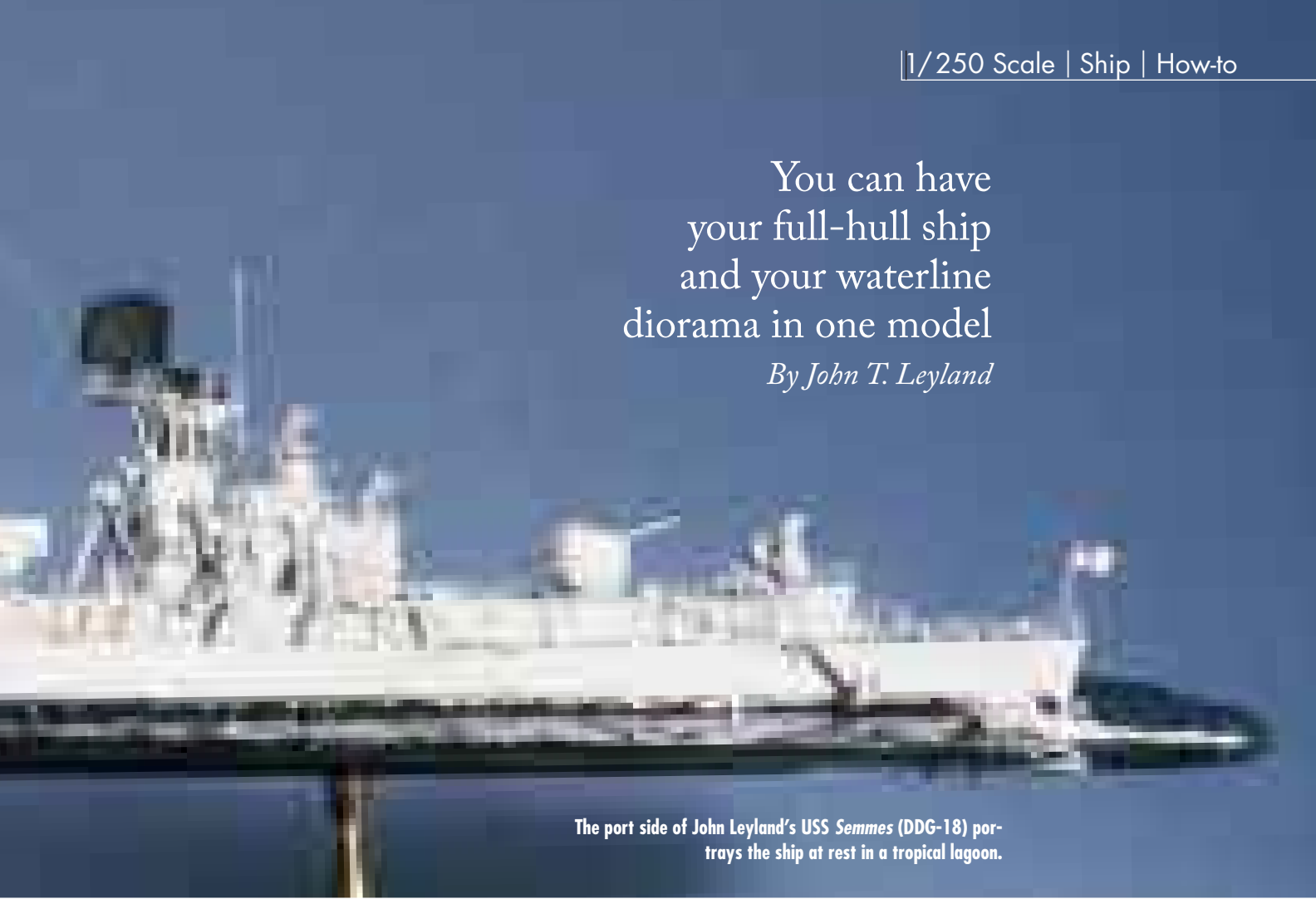
When my destroyer was painted and complete, except for the masts and rigging, I mounted it on a stained and varnished decoupage plaque. Brass finials found at a lighting-fixture store made up the pedestals. Then I went back to the water.

Another dip

The acrylic "water" was temporarily placed at the model's waterline, and four points were marked with a pencil, one at the bow and stern on each side. Then holes were drilled into the hull at

You can have your full-hull ship and your waterline diorama in one model

By John T. Leyland



The port side of John Leyland's USS *Semmes* (DDG-18) portrays the ship at rest in a tropical lagoon.

these points to receive small wire nails that support the acrylic sheet. I test-fitted the sheet, removed the pins, and slipped it off for painting.

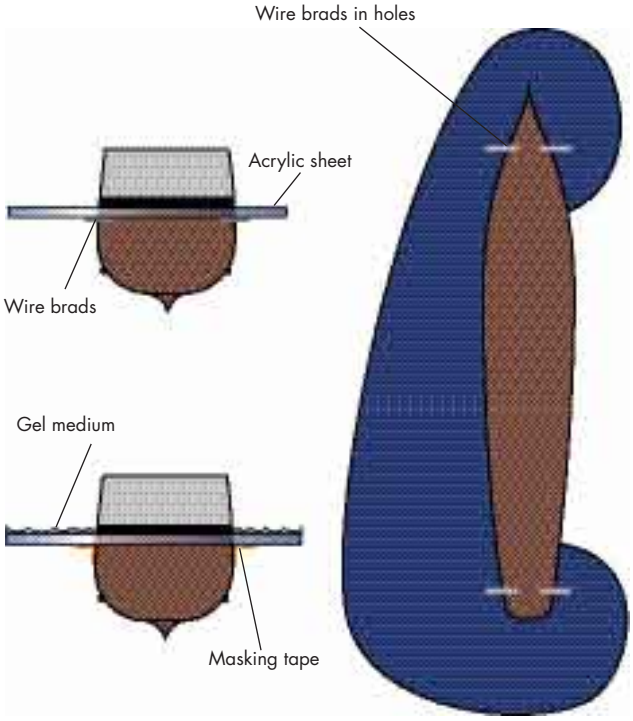
The upper surface of the acrylic sheet was airbrushed with two shades of blue-green in a random "splotch" pattern. When completely dry, the acrylic sheet supported by the pins was reinstalled on the model. I've used acrylic gel medium for water on several other diorama projects and have been pleased with the results, so I used it on this project as well. Acrylic gel medium comes out of the jar with the appearance and consistency of mayonnaise, but dries completely clear, giving a translucent appearance for the color beneath it.

I placed masking tape around the joint from below the ship's waterline so that no gel would run through the gap between the acrylic sheet and the hull. A layer of gel medium was spread over the "water" surface with an old kitchen knife. I was extremely careful not to stir any bubbles into the gel, because they would be visible later.

When I applied gel medium to the surface, it resembled a frosted cake with swirls and peaks. Starting at one end, I dipped an inexpensive 1" paint brush in water, and while it was dripping wet, I dabbed it on the gel to create realistic waves. The brush picked up "peaks" after two or three dabs in the gel, so I rinsed it regularly in water and kept dabbing. When the whole surface was finished, it had puddles of standing water all over it. After several days, when the gel was firmly set yet not completely dry, I removed the masking tape.

Next, I set the ship's boat and the outrigger canoe in place

Mounting the "water."





The *Semmes* displayed as a graceful solid-hull model reveals its sub-surface details including the sonar dome, bilge keels, and . . .



. . . screws and rudders.



The ship lies quietly at anchor with a local catamaran pitching and bobbing alongside and . . .



. . . boat booms swung out and accommodation ladders extended for liberty boats plying to and from shore.



John enjoys seeing the solid-hull view of the ship's starboard side.

and gently pushed them into the "water." After the surface was completely dry (at least a week), I dabbed on small drops of gel to shape the motorboat wake and the rippling of water against the ship's hull. I rippled the water just slightly because the ship is at anchor. When this dried, I painted ripples around the anchor chain and the hull with titanium-white acrylic paint.

My visions realized

The completed model is much more interesting than either of my two original ideas. Now when I admire it, I find myself turning the ship around to enjoy the other model for a while. **FSM**



Dr. John T. Leyland is an anesthesiologist. Away from his workbench, John enjoys sailing, hiking, and reading. He and his wife Marilyn live in Peoria, Ill.