

PAINTING NAVAL MINIATURES FOR WARGAMES

by

Rich Sartore

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The following is not meant to be an exhaustive study but more of a guide illustrating some of the techniques I've developed and used during my twenty-some years of painting naval miniatures. It is limited to metal miniatures but some of the ideas and methods can easily be applied to other types of models as well. It is assumed that the reader is fairly proficient with their airbrush and is interested in devoting enough time to the process to produce a nicely painted miniature. Even so, it has been my experience in using this method that the resulting paint job is often more detailed than might be accomplished by hand-painting alone.

PRELIMINARIES

For many of us, this entails setting up a temporary area to perform a number of tasks, most of them involving paints and solvents, which are best accomplished either outdoors or in another well-ventilated area. Keep in



Photo 1: A simple plywood spray booth for airbrushing.

mind that airbrushing produces a very fine mist, which is likely to settle, sometimes permanently, on just about any surface nearby (including automobiles). Therefore use of a commercial or self-constructed "spray booth" is recommended as is keeping most objects twenty or more feet from the airbrushing activity. Since I work on an old desk near the door of my garage, a simple self-constructed plywood spray booth is all I use (but I do make sure the cars are parked in the driveway). One or two portable box fans are also a good idea and help to keep the air moving inside or direct spray and fumes outside. Also, make sure you have an ample supply of rags or paper towels to handle any spills.

If you're painting a few dozen or more ships during a session, you may want select the miniatures to be painted based on things like ship type, period or country. This is

particularly important if you intend to match historical colors so you'll probably want to keep all the ships having similar base colors together (i.e. all the ships you intend to paint using a British North Atlantic gray color, or a Victorian black and white livery, etc.).

If you have not done so already, open the packaging and make sure it contains all the models and/or parts as advertised. I usually like to keep the package, or at least a portion of the package that identifies the models it contained, while the ships are being painted. This is very helpful when trying to identify some of the small ships later on and, in the case of the 1:6000 models, keeping the right bases with the right ships. Of course, you can always pull out a reference book later on, but by planning ahead, you will probably be able to skip that step and save some time.

CLEANING AND PREPARATION

Once you've made certain that you have all the parts for each model, you should check to see that all the pieces fit together as designed. Quite often, imperfections result from the casting process and some basic trimming is needed to see if the pieces will "mate" when adhesive is applied. Clean away any flash with a pointed-blade hobby knife and re-drill any pre-cast holes to the appropriate size so that the mating piece (i.e. turrets, superstructure, masts, etc.) fits snugly. Straighten any superstructure, masts, gun barrels, etc. Also, straighten the model itself since both the cooling and packaging process can cause the model to "bow". You can check this by laying the model on a hard, flat surface and checking to see if both the bow and stern are in contact with the surface. Once straightened, running the hull across a flat file will ensure a truly flat bottom surface for the model.

The casting process often leaves certain residues which may result in some problems during the painting process; most importantly the failure of the paint to adhere properly to the model surface. While not always a major concern when a model is intended for display purposes, this can be a real problem when your ships are handled on a regular basis. In addition, these residues (and even the metal itself) often react with air, causing corrosion beneath the paint layer and ruining both the paint job and the model. This is especially important if you live near the coast or in an area of normally high humidity.

I've found Acetone to be about the best solvent to use for cleaning the bare metal miniatures prior to priming and painting. It removes any production residues or skin oils (that may have accumulated while you were cleaning the model) and dries almost instantly. It is also extremely damaging to any finished surface and most plastics so use caution when pouring or using it in the vicinity of anything that might be damaged by a splash or spill.

I use a small, shallow, heavy glass container filled with enough Acetone to cover the ship models completely and allow them to soak for about 30 minutes or so. The container itself is a general-purpose kitchen storage jar available from most variety stores and, most importantly, comes with a lid. I did have to remove the plastic ring from inside the lid (used to keep the container airtight) since Acetone destroys most plastics. That said, plastic containers of any kind cannot be used and I do not recommend using metal containers either.



Photo 2: Cleaning the miniatures with Acetone in a glass container.

Acetone also evaporates rapidly and is extremely flammable, so a cover is essential and this process should only be performed in a well-ventilated area. Also, repeated contact with the skin should be avoided since Acetone also acts as a solvent for oils produced by the human body. I normally use flat-nosed tweezers to pull the models out of the jar when the soaking is complete and place the models on scrap piece of wood covered with an absorbent surface (newspaper, blotter, paper towel, etc). Again, even concentrated fumes seeping through the wood can damage a finished surface beneath so be careful where you place the board while the models are drying.

One very big problem is always how to handle the miniatures during actual painting. Since this method requires that the airbrush be positioned at angles below the plane of the deck, laying the ships on a flat surface or even holding them between your fingers just won't work. To solve the problem, I constructed a painting jig fashioned out of plain wood lattice about 1.5" wide and ¼" thick. Two pieces are needed for each; one for the base (about 12" to 18" in length) and one for the vertical (about 18" to 24" in length). The pieces can be fastened together with wood glue or heavy-strength adhesive to form an inverted "T". A thin strip of heavy double-sided carpet tape is then attached along the top length in order to hold ship models in place during the airbrushing process. Note that using ¼" width lattice will work fine for some of the larger scale models down to 1:3000, but a much

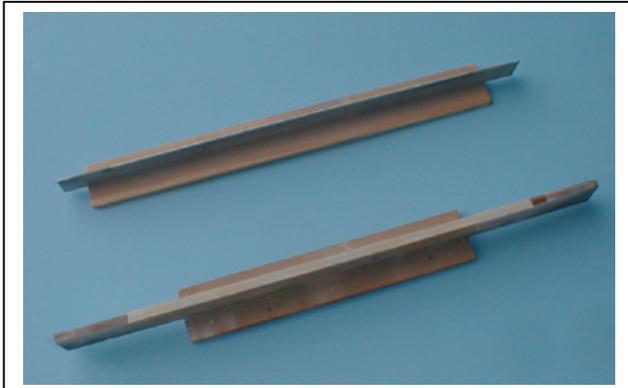


Photo 3: Painting jigs. Top jig uses the thin aluminum bar stock and bottom jig uses the 1/4" wood lattice.

thinner vertical piece is needed when airbrushing the 1:6000 models. For this scale (and some of the smaller fleet units in the larger scales), I use a piece of 1/16" aluminum flat bar (1" wide) attached to a wood lattice base. You'll have to cut a lengthwise slot in the wood base before gluing the aluminum bar to it with epoxy or construction adhesive. Again, a thin strip of heavy-duty carpet tape is used to hold the models in place while painting.

If you want a long-lasting and more durable paint job, the initial coat of paint must always be primer and should also be specific to the brand of paints being used. The primer coat should be applied to the entire model, including the underside. In addition to providing better protection, painting the underside will allow labels applied there to be more easily read. For the primer

coat, I usually use an oblong piece of scrap wood and airbrush the primer liberally to all surfaces, tipping the model on its side (after a few minutes drying time) to apply primer to the underside.

TO BAKE OR NOT TO BAKE

Another step, which will add durability to the paint job, is baking the model between coats. This is especially important after the primer coat. I've found that baking the models in an electric oven for 20 to 30 minutes at no higher than 200-degrees (F) produces excellent results. Higher temperatures are not recommended since different manufacturers use different proportions of metals in their products causing some castings to begin to melt or lose shape when exposed to temperatures above 200 degrees. However, be warned that the baking process will produce odors unlike those traditionally expected to emanate from a home kitchen. The odors will vary depending on the paint and thinner combinations used but some consider them objectionable to the point of discomfort while others readily tolerate and accept them.

Even though I have used baking tins and cookie sheets in the past, I think I prefer using clay saucers like the ones used beneath potted houseplants. The clay pottery tends to distribute the heat more evenly and the smaller saucer size provides an easier way to keep the models grouped during painting sessions that involve several dozens of ships so that one group can be baking while another is cooling and another being painted, etc.



Photo 4: Some 1:6000 miniatures ready for baking using a clay saucer.

However, if the commanding officer of your kitchen denies you access to the oven, then an alternative is to rig a small baking tin (about 10"x10") just above a clamp-on style light fixture with a 75 or 100 watt light bulb. The heat will readily conduct through the metal and result in the same effect overall. Just be careful to monitor the process since it is a bit harder to regulate the temperature using this method. Another useful method for speeding up the drying time without baking is a regular blow dryer.

APPLYING THE DECK COLORS

Once primed and baked, the next step is application of the deck color. Whatever deck color you choose, now is the time to decide whether you want teak or steel colors for the levels above the main deck. If you're going to stick with teak, then make sure you spray the decks at the higher deck levels and into any recessed areas as well. If you want to use steel deck colors above the main deck, then just make sure you have the desired main deck area painted. In both cases, don't worry about over-spray; that will be painted over later.

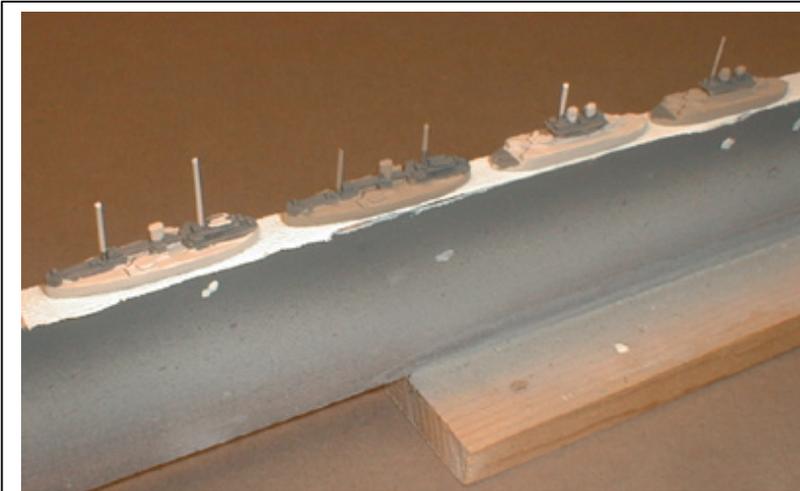


Photo 5: Several 1:3000 scale ships with both teak and metal decks painted are now ready for airbrushing the vertical surface color.

If you've opted to go with steel deck colors above the main deck, this is an extra step in the process and is best performed using a regular brush and after the airbrushed deck color has been applied and has dried. Again, you don't have to be too neat here; just make sure you've covered all the flat surfaces and don't slop over onto the portion of the main deck you want to remain teak in color. Regardless of how you've painted the decks, baking or sufficient drying time is recommended prior to moving on to the next step.

APPLYING THE OVERALL COLOR

Once the decks have been taken care of, the next step is painting the overall color for the vertical surfaces of the ship model. This is where the painting jig and airbrush combine to provide an easy method of applying the overall gray (or white) color chosen to match that of a particular ship during a particular era. After placing the ship models along the top portion of the jig and ensuring they are all level with respect to one another, the airbrushing can begin.

By holding the jig by the base in one hand and holding the airbrush in the other hand, you now have complete control over the angle at which the paint will contact the model surface, so that the angles of the model itself serve as a sort of "mask" and prevent the overall color being used for the vertical surfaces from hitting the deck surfaces (already painted). This is the key step in successfully applying this technique and may require a little practice at first. Luckily, the airbrushed paint layers are so thin that even if you have to re-paint, you won't be losing any of the model detail.

Start by spraying the broadside (90-degree angle from the model) areas first, concentrating on covering the hull and keeping the spray pattern well below the deck level so that only the hull and uppermost portions of the superstructure receive paint. Then,

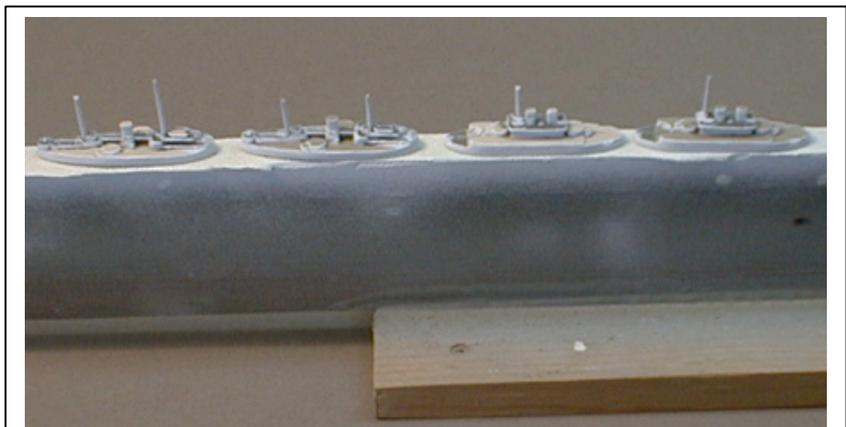


Photo 6: The same 1:3000 scale ships from Photo 5 after airbrushing the vertical surfaces and before detailing.

gradually decrease the angle by either tilting the jig or moving the airbrush until the spray pattern is nearly at the level of the deck, and all the broadside vertical surfaces have been painted. The fore and aft vertical surfaces are handled in a similar manner, the airbrush being held at about 20 to 40-degree angle to the model on the jig.

At this point, the model should have all its deck areas covered (in the teak or steel colors) and all the vertical surfaces painted right down to where they meet the deck. Depending on the sharpness of the casting and the pressure used during the airbrushing, you might not be able to get the color of the vertical surfaces all the way down to the deck without the process resulting in some overspray on the deck surfaces. If the overspray is fairly light, a light airbrushing of the deck surface using thinner only will often take care of the problem. Before proceeding on to the next step, which involves painting using a regular brush, either bake the model or allow the paint to dry thoroughly.



Photo 7: Illustrating the position of the airbrush relative to the ship model. Begin airbrushing the vertical surfaces by keeping the spray pattern of the airbrush below the level of the deck.

There are some instances where the hull color must differ from the superstructure and this is particularly true of the Victorian Era where

there were black hulls and white or buff superstructure above the main deck. In those cases, I usually paint the white (or lighter color) vertical surfaces during this step and hand paint the hull afterward using a regular brush.

FINAL DETAILING

All that remains to paint during this step are the horizontal surfaces of the model that are still covered by the original deck color such as tops of turrets and mounts, lifeboat covers, aircraft, funnel caps, masts or any other portion of the model deserving of a little detailing. Of course, the only way to accomplish this is by hand with a regular brush, but if the airbrushing steps were successful, you won't have to spend much time on this step. Again, a final baking at the end of this step is recommended.



Photo 8: 1:3000 scale ships labeled with thin parchment attached by varnish.

I usually do not apply a final coat of clear paint to the model since these tend to yellow the overall colors when baked. However, if you really want to apply a coat of clear paint, don't bake the model afterwards.

or parchment (about 12-lb.) printed with the ship name in 6 or 8-point type using a laser printer, works quite well. It can be attached to the underside of the model or base using a paintbrush and spar varnish thinned with mineral spirits.

If you're interested in labeling the model for identification purposes, I've found that thin paper

Comments and suggestions are always welcome and may be sent to me vial e-mail at admiral@seekrieg.com .