

Restoring Minutely Detailed Frames

Many factors determine the correct action to consider. There is not a "one mold fits all" solution, and it would be wise to study molding techniques prior to the process.

By DiAnna Tindell

Ornately designed frames require special processing during restoration. For instance, the pattern of a border that allows open areas within its structure is often referred to as reticulated. This type of pattern might also be called open weave, lattice or even waffled.

Why do these become a challenge during restoration? First, the type of design structure tends to be more fragile and delicate than other kinds of patterns. With various holes created within the open design, the frame's border is weaker and normally doesn't support weight as well as a solid frame. Often, the design will include extended areas of leaves, flowers or other design curvatures that have a tendency to break and become lost.

In a process to restore the missing parts of a reticulated frame design, molds can be made from a repeated pattern of another portion of the frame that's intact. The mold can be removed from the copied area and then placed in the missing area for the casting of a new section. Normally, a mold material that is flexible picks up fine details and can be easily removed should be selected to copy a delicate reticulated area.

Most frame designs include deep cut decor with fine detail. They often include an overlapping looped area, such as tiny vines. That way, the mold material can allow for easy removal to prevent breakage of the intact section being copied. The duplication is sometimes better when separate, smaller mold cast sections about 2" square are used until the total area needed is covered. By creating the molds in smaller subsections, there will be more control.

Many reticulated designs are not perfectly geometrical or precise in repetition, so the use of smaller segmented molds can allow variances in alignment to fit as needed. In



Old "Union Case" with burnished hinges, manufacturer S. Peck & Co. Only one side of hinged photo frame shown. Missing corner section of frame requires a mold/cast for new part.



Same frame with corner indicated as damaged. Small round container holds black pigmented thermal dental casting material to be poured into mold and form new corner.



addition, smaller molds are easier to handle because less casting material is needed within each section to cure a new part.

Depending on the size of the frame and what it may support inside (i.e., mirror, oil painting, tile), the strength of the material used to make new parts for the frame will vary. The best solution is a casting material that will provide strength while duplicating all the fine details.

There are many strong casting materials, but most lack the ability to cast fine details. For example, a strong material might capture the overall shape of a leaf but fail to capture the minute details of veining.

Normally, a lean liquid pour casting material works well to allow absorption of the fine details before it cures (such as veining within the mold). Some dental industry products provide liquid pours for fine detail and great strength. Information about casting materials can be found on some restoration websites.

If the coloration of the frame is one even hue, a liquid thermal casting material can be pigmented to create a new section. For instance, a minutely detailed plastic, resin, bakelite, ivory or other unusual body type frame may contain color that absorbs and reflects light. This coloration exists throughout the mass of the frame.

This look is different than many standard frames with applied coatings of paint, gold, faux finish, stain, etc., layered on an outer surface of its composition. The use of dry or liquid color pigments blended into a white or clear thermal liquid base casting material can cure with a permanent match to many frame types.

The mold product selected to copy a part should be compatible to the casting material. If a thermal material is poured into a mold that can't withstand heat generation, the mold will dissolve before the part is formed. It would be helpful if the mold is somewhat transparent, to monitor that all areas are well filled.

Same frame with the inside of blue mold showing "details" to be duplicated when cast with black thermal fill.



Same frame with the new corner section just removed from the blue mold cast. May require some additional sanding and airbrushing for final finishing touches.



A close-up of a blue molding compound placed in an area "intact" to duplicate and create a cast of a few missing corners for the same reticulated frame.

It is usually best to create molds for frames as open, one-sided forms. In other words, the mold will capture the shapes of the outer designs in a flat section. This enables the casting material to be loaded into the mold from an easy, open area for attachment to the flat back side of most frames.

If a frame has dimension, and the back side of the design is detailed, the mold may be required to capture more than just the design on the front. To accomplish this, one option is to cast mold material over an area, like the placement of a glove to be rolled off. Another option would be to cast the front as one open mold and the back as a separate open mold to be filled, as two halves bonded together.

Many factors determine the correct action to consider. There is not a "one mold fits all" solution, and it would be wise to study molding techniques prior to the process. It is always a great idea to "test" any techniques on a dummy piece before attempting it on the original.

The color thermal fill is a great solution for many newly created parts, but it doesn't always offer the right final finish. Some surfaces require multiple processes of layering to achieve the proper patina. The use of an airbrushing paint system can allow layering with special effects.

The problem that reticulated frames create is their open areas or "holes." When the paint is airbrushed on the front design, it can easily pass through the open sections to rest on the other side as drips, ridges, streaks, runs, etc.

It takes a lot of practice to master the airbrushing techniques to finally get the smooth finish results needed on both sides of a reticulated frame. This is mostly a problem when the detail of the frame border is visible throughout. Most painted frames look best if airbrushed first and then handpainted with a brush (if required) for a special faux finish surface.

If a frame contains minute relief design detail, the painting



A close-up photo with mold displayed above one of the areas created with use of a pourable thermal strong dental casting material with simultaneous adhesive capabilities.



A close-up of the detail results after further restoration processing of applied final faux finishes.



An overall view of the completely restored reticulated frame. The damage consisted of areas needing

can also be a challenge. Sometimes it is better to allow the creation of a new part to have an overexaggerated cut within the minute design. This allows for the leveling and/or filling of the applied paint(s). The raw part takes on different shapes as layering of colorations are applied. This variable should be considered prior to or during their applications.

replacement.

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Visit her website at www.TindellsRestorationSchools.com. Oil Painting & Frame Workshops are scheduled for July 9-11 and July 20, 2003. Send mail to P.O. Box 292633, Nashville, TN 37229-2633.

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