



STRICTLY COMMERCIAL

By Francis S. Lestingi

Francis Lestingi, a former physics professor, owns Signs of Gold Inc. (Williamsville, NY).

Roll Out the Scrolls

How to create and reproduce filigree-scroll appliquéés

Officials who represented the historic Village of Williamsville, NY (founded in 1800) commissioned my shop to produce a commemorative sign, which celebrated converting a segment of the legendary Lehigh Valley railroad tracks to a community walking and biking path. To add to the yesteryear flavor, we incorporated some decorative, handcarved filigree scrolls into the design.

Pleased with our work, the village ordered seven, similar signs to grace various Williamsville park locations. Faced with the monumental task of carving 14 scrolls, I used a technique that would allow unlimited scrolls very quickly.

Our *modus operandi* required handcarving a set of high-relief scrolls; making molds of these originals let us fabricate necessary copies by casting. We chose Extira® wood-composite over HDU and wood as our carving medium for several reasons: Extira, with impregnated rot- and pest-resistant compounds, doesn't require following an integral grain, which wood does, and won't crumble, which HDU does occasionally. I'll fabricate HDU appliquéés with rasps, files and sandpaper when projects require less detail. Because these scrolls required intricate work, I used Extira and carving tools.



Williamsville, NY's city fathers called upon Francis Lestingi, proprietor of Williamsville-based Signs of Gold, to create handcrafted, wood signs to commemorate the city's park-system expansion. He chose to incorporate elegant, filigree scrolls to provide rustic appeal.

The design scheme

After I conceived the 3-D scroll design using Adobe Illustrator, we printed the pattern on high-quality, drafting vellum with a laser printer. Using the carbon-based laser print, I transferred the pattern to 3/4-in.-thick Extira® using a heat-transfer tool. A household iron offers another option, but the transfer device provides more control. I used a saber saw with a narrow scroll blade to fabricate Extira cut-outs. The project required twin, symmetrical scrolls.

The scroll blade negotiated most of the curvature, but when it couldn't, I drilled a hole with an appropriate-diameter bit. After I'd cut out the scrolls, I sanded the edges and attached the scrolls to my workbench with double-sided-adhesive, carpet tape.

The flat scrolls were now ready for transformation into elegant, high-relief filigrees. To produce pleasing, prismatic curves, I used a curved, sweep gouge on concave curves, and a straight chisel on convex curves.



Lestingi cut the original filigree from Extira® wood-composite material. He used a scroll-blade saber saw and a drill to fashion them.



He carved the high-relief filigrees using a curved, sweep gouge and a straight chisel.



Before the casting process, he coated them with Sign Arts Products' Sign*Prime™ all-purpose primer.

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After priming the scrolls, he applied two coats of high-gloss, oil-based, bulletin enamels.

Making the mold

After having carved our model scrolls, we prepped them for the mold-making process by applying two coats of SignPrime® primer and 320-grit, sandpaper applications between coats. An extremely smooth finish was vital because we wanted the castings to have similar, glossy surfaces. Before forming the molds, I topcoated the primed scrolls with two coats of high-gloss,



After forming a liquid-silicone mold around the original, he poured in liquid-polyurethane resin, which formed a replica scrolls after 10 minutes of curing.

oil-based, Ronan bulletin paint.

The scrolls were now ready for moldmaking (see ST, May 2003, page 40, or www.signweb.com/fabrication). To summarize the technique, I boxed the model and secured it to the base with carpet tape. Then, I poured the liquid-silicone rubber, Smooth-On's Oomoo, onto the original. Because the rubber's formulation doesn't require a releasing agent, removing casts from the mold was



To attach the scrolls to the signface, he inserted 1/8-in., threaded-aluminum studs.

simple. After I allowed the mold to cure overnight, I removed the model. The process yielded an exact copy, and, from this, we could produce virtually unlimited replicas.

To create castings, I poured liquid-polyurethane resin (Smooth-On's Smooth Cast 300) and allowed 10 minutes for curing. Smooth-On now makes very intense casting dyes, called So-Strong®. This product eliminated the need to

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Using Smooth-On's dye, he coated the cast pieces before gilding.

handpaint the casting.

After curing, I removed the cast from the mold, which was immediately ready to produce another casting. Once I completed the initial casting piece, the process progressed rapidly.

Before gilding the scrolls, I prepared them for attachment with 1/8-in.-diameter, threaded-aluminum studs to the back of each scroll by first drilling a pilot hole with a 1/32-in. bit. I twisted each stud into the scroll



After a kaolin dusting and smooth-size application, 23 1/2k surface gold adds brilliant sheen.

with a vice-grip. This caused the studs to self-tap into the plastic, which produced a very strong bond. After I shortened the 1/8-in.-wide studs to 3/4 in. with a snipping tool, I used the studs' sharp edges to mark where I placed the scrolls on the substrate.

Solid gold

Using the marks as guides, I drilled 3/4-in.-deep holes with a 1/16-in. bit – in other words, a substrate hole



The filigree is nestled into pre-drilled, silicone-laden, signface holes.

that's approximately twice the studs' diameter. Later, I filled these holes with silicone and inserted the studded scrolls.

To prepare the scrolls for the sizing process, I dusted them completely with kaolin using an artist's mop brush. The ultra-fine kaolin powder deposits a miniscule layer that makes the black scroll look gray.

Next, I applied LeFranc Charbonnel's slow size to prepare

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the surface for goldleaf. The scrolls' surfaces were easily discernible because the size cut through the kaolin dust; its sheen resembles high-gloss, black paint. Rather than adding a dye or color indicator to the size, which could alter the size's physical and chemical properties, the kaolin-dusting procedure aids visibility and prevents gold from adhering to unsized surfaces.

I allowed the size to cure for 48 hours, which my experience has shown provides ideal surface tack. Next, I applied 23½k, surface gold-leaf with a gilder's tip. Before adhering the scrolls to the substrate, I removed unwanted kaolin residue with a damp paper towel.

Finally, I attached the scrolls to the substrate. I applied a small, silicone bead to the pre-drilled holes



The filigreed signs received such adulation that city officials ordered six additional park signs that feature Lestingi's distinctive filigree casts.

and inserted the scroll's underside into them. I didn't gild the scrolls' vertical sides, which created a sleek, black outline and provided a convenient place to handle the scroll while attaching it to the sign panel.

All seven of Williamsville's park signs feature a set of elegant,

graceful, yesteryear scrolls. They're handcrafted, yet speedily produced, thanks to ancient techniques and modern technologies. ■

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Equipment and Materials

Brushes: White and red sable brushes, mop brush available from art stores; lettering quills, available from Andrew Mack & Son Brush Co. (Jonesville, MD), (517) 849-9272 or www.mackbrush.com.

Casting: Smooth-On OOMOO-30 for moldmaking; SmoothCast 300 for casting; and So-Strong® color dyes, available from Smooth-On Inc. (Easton, PA), (800) 762-0744 or www.smoothon.com.

Coatings: SignPrime and Ronan Bulletin oil-based paint, available from Garston Sign Supply (Rochester, NY), (800) 966-9626 or www.garston.com.

Computer and Software: PowerMac G5, from Apple Inc. (Cupertino, CA), (408) 996-1010 or www.apple.com; Illustrator® software, from Adobe Inc. (San Jose, CA), (408) 536-6000 or www.adobe.com; and HP Laserjet 2200d laser printer, from Hewlett-Packard (Palo Alto, CA), (650) 857-1501 or www.hp.com.

Gilding: Slow size, from Lefranc Charbonnel (René, France), and; 23½k surface, ducate, double gold, available from Sepp Leaf Products (New York City) (800) 971-7377 or www.seppleaf.com; kaolin, available from Soapcrafters Inc. (Salt Lake City), (801) 484-5121 or www.soapcrafters.com.

Studs: Aluminum studs, available from Gemini Inc. (Cannon Falls, MN), 800-538-8377 or www.gemini.com.

Substrate: Extira® exterior-grade, wood-composite material, from CMI Inc. (Chicago), (800) 405-2233 or www.extira.com.

Tools: Saber Saw and scroll blade; heat-transfer tool; power drill and bits; Visegrip®, snippers; sandpaper and double-sticky carpet tape, all available at home-improvement stores; No. 1 straight chisels and No. 2 sweep gouges, available from Woodcraft (Parkersburg, WV), (800) 225-1153 or www.woodcraft.com; drafting and design vellum, available from Clearprint Paper (Emeryville, CA), (800) 766-7337 or www.clearprintpaperco.com.

More about Francis

A Queens, NY, native, Signs of Gold Inc. (Williamsville, NY) owner Francis Lestingi taught himself calligraphy and brush lettering during his youth, and created gilded, handlettered, storefront signs while in high school. After an academic career, as a physics, chemistry and theology instructor, he returned to his love of the lettering arts and opened his signshop in 1994.

During the past eight years, Lestingi has earned six first-place awards in *ST*'s and the United States Sign Council's (USSC) sign-industry competitions.

He's also conducted gilding and moldmaking workshop at several international Letterhead meets, as well as the USSC's Sign World tradeshow for the past five years. Lestingi has also earned the distinction of having his calligraphic font, Pierre, accepted for distribution through www.letterheadfonts.com.

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