A Journey to Bombé

Online Extra
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Veteran woodworker Dan Faia plunges into the project of a lifetime

BY THOMAS McKENNA

On the surface, a bombé chest is a beautiful piece, with friendly curves on every side. But woodworkers know it's really a wolf in sheep's clothing. Those drastic swells confound traditional construction, creating a conundrum of surfaces that stymie every step of the way, from shaping the sides and drawer fronts to fitting the drawers. Even the hardware has to be shaped to fit.

As you might guess, not many craftsmen are willing to embark on this quest. But it's not just the technical aspects of the project; it's also the cost of the lumber. To achieve the carefully matched grain patterns on the sides and front, you need to

Photos: Thomas McKenna

Staggering amount of stock removal

Cutting and milling the rough stock was the most physically demanding part of the entire project. The 12/4 board, from which Faia took all the case parts, weighed close to 350 lb. and was too big for a jointer or planer, so he did all of the flattening by hand. Luckily, he said, "I enjoy handwork, so it didn't feel too much like hard labor."

Kerfs guide the work. *Faia laid out the side profiles on the thick blank, then cut a series of tablesaw kerfs that would guide the sculpting to come.*

Chop to the lines. *Faia chipped away the bulk of the waste using a wide chisel and mallet. He followed with a travisher (inset) to rough in the curves.*

sculpt the parts from monstrous slabs of solid mahogany.

So I was thrilled when longtime *FWW* contributor Dan Faia told me he was commissioned to build a bombé for a local client. It is hard to imagine anyone better suited for the job. Faia has strong Boston roots, as does the American bombé, and possesses terrific technical skills with an attentive eye for detail. He also happens to run the Cabinet and Furniture Making program at Boston's North Bennet Street School.

It was a perfect storm for *Fine Woodworking*. We had a once-in-a-lifetime piece being built by one of the best period furniture makers in the country. So we decided to go along for the ride. This is a

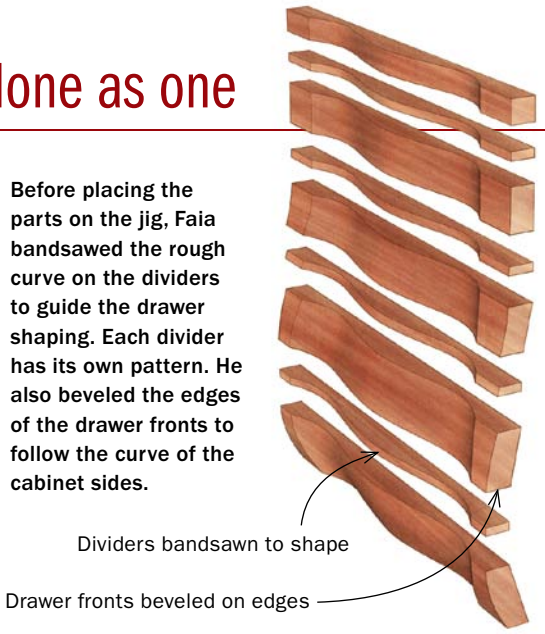
Smoothing the rough spots. *As the work became more refined, Faia faired the curves using a smoothing plane and a card scraper. At this point, the bull's-eye grain pattern really started to pop.*

These dogs pinch. *Faia spot-glued and clamped the parts, in sequence, on top of the supports and used pinch dogs to hold the components tightly together for shaping.*

Drawers and dividers done as one

To ensure fair curves on the front of the chest, Faia shaped all the parts at the same time: drawer fronts, dividers, even the fretwork molding at the top. He sandwiched the pieces on a pair of curved supports—shaped to match the curve of the sides—which later served as the rear supports for the drawer runners. He learned this clever technique from Lance Patterson, a colleague at North Bennet Street School.

Before placing the parts on the jig, Faia bandsawed the rough curve on the dividers to guide the drawer shaping. Each divider has its own pattern. He also beveled the edges of the drawer fronts to follow the curve of the cabinet sides.



Heavy handwork. *As with the case sides, waste material was hogged away with hand tools. The arsenal included a drawknife, chisels, a travisher, spokeshaves, and other handplanes. He started with the flatter sections at the outside of the drawer fronts.*

brief account, in pictures, of Faia's long journey—so long you can see his beard come and go in the photos.

American bombés have Boston roots

"Many furniture makers are fixated on making their piece mimic the original," said Faia. "But I did not want to simply recreate a piece that had already been done." Fortunately, his client gave him broad freedom to explore different options. But, he said, "it was important that I keep the details—and the construction—authentic to the period."

He pored over historical examples—in books and in museums—searching for elements that he could incorporate, and trying to piece together the steps. It was like "CSI Boston."

Bombé furniture didn't originate in America, but the form was refined and perfected in Boston in the late 1700s. Many scholars believe it first appeared in the states in the Brattle Square Church.

Drawings: John Hartman

3-D pattern has multiple uses. *Once the end sections of the drawers were flush with the dividers, Faia used a 3-D pattern to mark where the serpentine shape begins (inset). The same pattern was used to mark the shape on the ends of the drawers and to lay out the front of each case side. Faia followed those lines as he sculpted the front of the case (right).*

The church had a number of wealthy and politically influential members, such as John Adams and John Hancock. When the church was rebuilt in the late 1700s, its most prominent architectural element was the pulpit, which exhibited the iconic serpentine shapes of the bombé form.

Wealthy church members, eager to showcase their cultural status, commissioned local cabinetmakers to build pieces based on the pulpit's design. One of the most notable of these makers was John Cogswell, whose signature adorns many of the original bombé chests and desks still in existence.

Cogswell and other makers stepped away from the European take on bombé

Bull's-eye. *As the shaping neared the end, the telltale bull's-eye grain pattern on the case front was revealed. A scraper handled the final fairing.*

Crazy curves complicate assembly

Once the shaping was done, Faia cut all of the carcase joinery. The bottom is joined to the sides with half-blind dovetails. The top and dividers connect to the sides with sliding dovetails. The fretwork molding is mitered into the case, while the lower egg-and-dart molding in front of the pine bottom is dovetailed. Before glue-up, he carved the fretwork pattern into the sides.

Does it fit? *Before shaping the top, Faia dry-assembled the case to make sure all the joinery was perfect (above). Then he bandsawed the top to shape and used the router table to cut the edge profile. He used custom scrapers to give the routed shapes a handcut look and feel.*

Time for glue. *The top and bottom were glued to the sides first. Then Faia installed the drawer dividers (left). Last to go on was the fretwork molding (below; for more on that detail, see p. 74).*

pieces, where the swelled case sides were shaped from narrow boards that were coopered together and then covered with veneer. American makers, in a nod to the wealth and prosperity of their clients, built their chests out of solid, thick slabs of plentiful mahogany. They adorned the pieces with opulent hardware and occasionally incorporated fine carvings, such as ball-and-claw feet and leafage motifs.

Building drawers to fit these curvy cases was perhaps the greatest challenge, and makers came up with a number of solutions. Some made vertical sides, with the

pocket blocked out, or angled the sides inside the pocket. In both cases, the front was shaped to fit the curves. More complex designs featured drawers whose sides and fronts were shaped individually to fit the case. That approach was a hallmark of later Cogswell pieces.

No repeats

Faia began with a number of sketches. He wanted to incorporate period-perfect details, but the mix had to be right. "My intention was to replicate the very best elements of the very best period examples," he said.

His piece has roots in the original Cogswell chests. He sculpted the sides and the front parts (drawers, dividers) from solid mahogany. He shaped the drawer sides and front to fit the inside curves of the case. And he added ball-and-claw feet and leafage patterns carved on the knees and transitions.

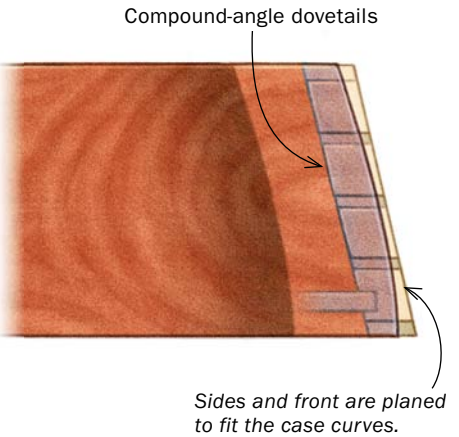
But that wasn't enough. "To make my bombé different," he said, "I also incorporated a number of unique carving details, such as

Devilish drawers are tricky to fit

With compound-angle dovetails and rounded sides, the drawers were one of the most challenging parts of the piece. To top it off, each one has a different shape, requiring a different set of compound angles. After cutting the joinery, Faia shaped each drawer to fit its opening, one at a time.

Never-ending array of curves. *Each of the dovetailed drawers has a different shape on the ends, requiring compound-angle joinery and meticulous hand-shaping and fitting on the sides.*

Shaping needs a heavy hand. *Faia used a smoothing plane to shape the drawer sides to fit the curved pocket. He started with heavy cuts and finished with light, smoothing cuts to refine the curve. He checked the fit often.*



Worth fretting over. *The fretwork molding at the top was a period-correct twist to Faia's bombé. The front is a separate molding, mitered into the case. The side patterns were hand-carved into the carcase.*

Fretwork adds pizzazz

During his research, Faia had seen a few bombé secretaries and chest-on-chests with fretwork molding around their midsection and sometimes at the cornice. He liked the idea of fretwork at the top of the low bombé, but for this smaller piece he had to scale it down.

In the zone. *While carving, Faia followed a pattern marked from a full-size template. "It looks like a daunting job," he said, "but I find carving to be very meditative."*

Knockout punches. *To create the texture in the recesses of the fretwork, Faia used a series of custom punches he made using flat and triangular files.*

Floor-level details are fantastic

Many original bombé chests had spare bases, with simple moldings and feet. Perhaps the makers believed the voluptuous shape and fancy hardware were enough decoration. But Faia loaded up on hand-carved details at the base to take his bombé to another level.

Creative corner. *Eighteenth-century cabinetmakers often subbed out carving jobs to specialty shops. But Faia was a one-man show, handling both jobs with superb skill. The base carvings are a testament to that.*

Boston ball and claw. *With the side toes raking back, Boston feet are unique to the region. Faia borrowed the leafage pattern on the knees and transition blocks from an original piece at the Museum of Fine Arts Boston.*

How do you like your eggs? *Faia carved the egg-and-dart molding so that the corners would meet perfectly in the center of an egg. "It was time consuming," he said, "but in a piece of this magnitude, the details are everything."*

the fretwork at the top of the case and the egg-and-dart base molding."

Having settled on his savory stew of traditional details, Faia's next challenge was figuring out the steps. "The project required the greatest amount of planning of any piece I have ever made," he said. "Work sequences had to be well-timed for everything to come together right. I knew a mistake at any stage would be devastating."

Faia figured it all out, and when he was finished, he was as understated as always. He didn't jump for joy. He wasn't interested in a high-five or a flying chest bump. He said, "I'm happy with it. It came out pretty good." □

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Even the hardware has curves

Pulls must be shaped to the case. *Faia had to shape the brass hardware to fit the front. He placed each piece on a curved pine block and tapped it into shape using a deadblow mallet. And the pilot holes had to be perpendicular to the curve at each location, or the screw heads wouldn't sit flush.*