Backfill

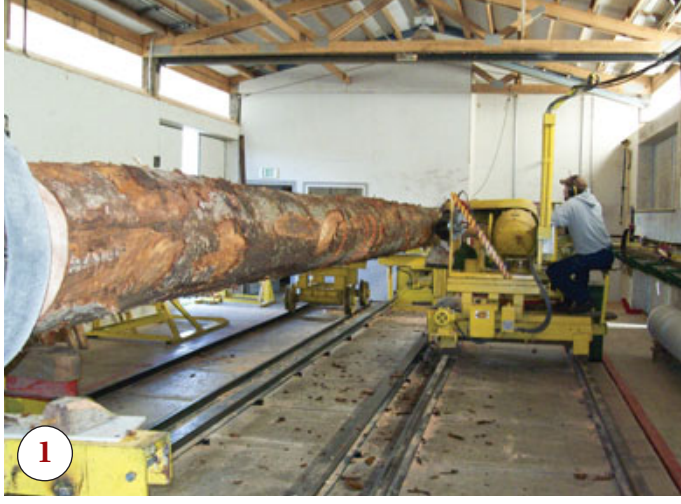
Masterful Columns

Suppose you wanted some wooden columns about 20 feet tall and custom-turned in one piece from straight tree trunks? There aren't too many places you could find such a thing. Virginia builder Tim Cox had that problem last year, while building a high-end custom home in the Appalachian foothills. His project called for 40 columns in a range of lengths to support the beams for a sloped roof. He turned to an unlikely source: The Spar Shop in Portland, Ore., which builds masts and spars for historic wooden ships. The shop's woodworking team uses a massive "tracer lathe" (1) that can turn wooden masts in lengths up to 122 feet.

The top and bottom diameters of all the columns in Cox's project had to match exactly, requiring a specific taper for each length — not an easy task for your average wood shop, but routine for the Spar Shop. "We went out and found the red cedar trees, turned them, and shipped them to him on the East Coast," says Spar Shop director Kent Wall. "We've done several projects like that."

Even with the posts in hand, the crew faced a few more unique challenges. The customer didn't want to see a mechanical connection between the posts and beams, so Cox had to devise a concealed stainless steel "knife connector" set into the end of each column (2, 3) and through-bolted to the wood (4), with matching plugs to hide the bolt heads (5). "Plowing the post ends with a chain mortiser was a delicate enough operation," Cox says, "but accurately drilling bolt holes through the sides of the columns to meet up with the machined holes in the steel plates was a real head-scratcher. We figured it out, but we were sweating."

As of this writing, the exterior is substantially completed (6), but the project continues. "We've been there for more than a year," Cox notes. "It's taking a long time." Meanwhile, the Spar Shop is back working on tall ships — for a Hollywood job, according to Wall. He can't share any details, but the movie's coming soon to a theater near you. — *Ted Cushman*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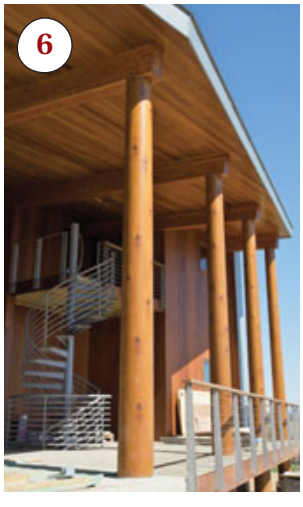
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