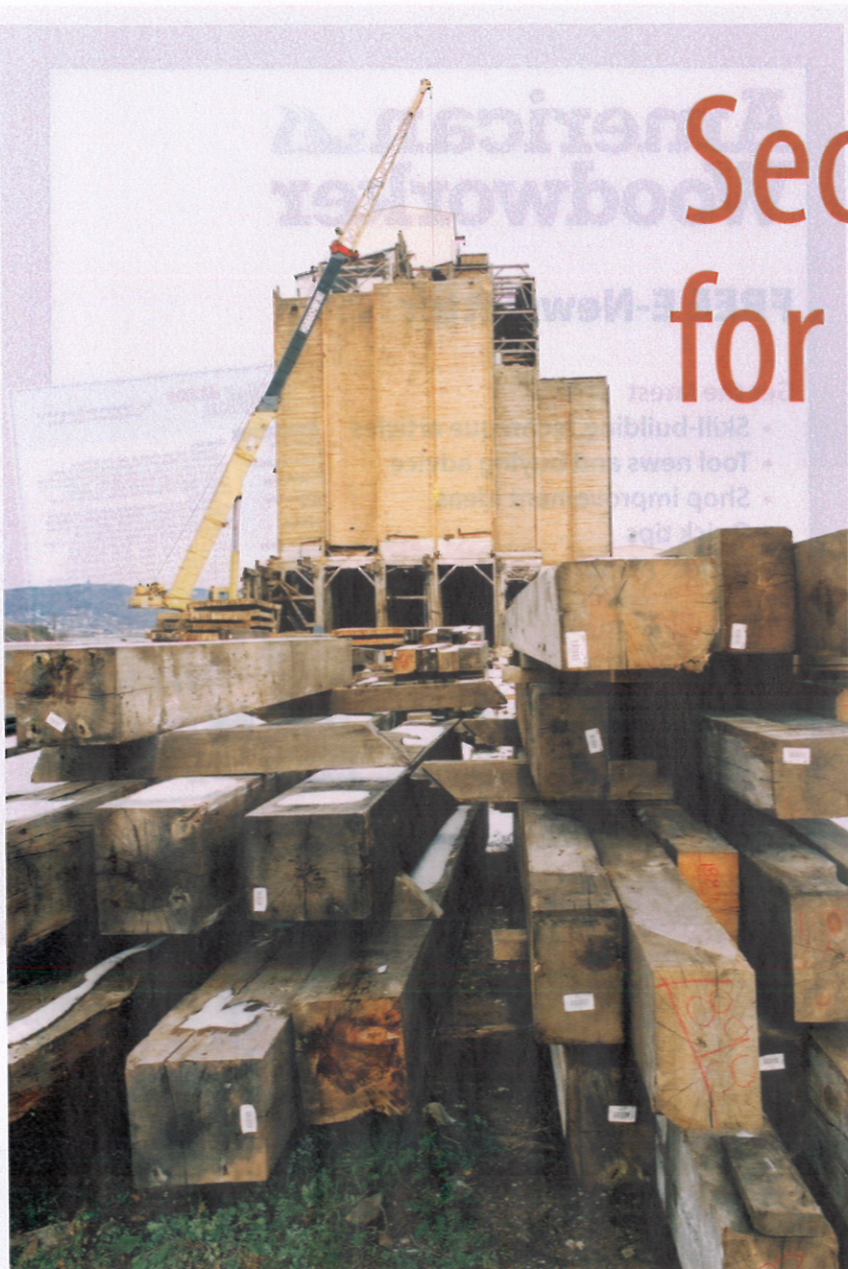


Second Life for Old Pine

Antiquated grain elevators yield millions of feet of vintage lumber

by Glenn Gordon

THE THREE GLOBE GRAIN ELEVATORS, in Superior, Wisconsin, across the harbor from Duluth, Minnesota, are some of the largest grain elevators ever built of wood. The biggest of the three, fifteen stories high, is comprised of more than two million board feet of lumber that has essentially been curing in these structures for 125 years (**Photo 1**). Built in 1887, mostly of white pine from the once vast north woods of Minnesota and Wisconsin, the Globe elevators are relics of an era when timber was an economical and plentiful material, an era that built massive railroad trestles entirely of walnut. After the



1 Some of the largest grain elevators ever built of wood were erected in 1887 in Superior, Wisconsin, near Duluth. The structures were made from old growth timber from the vast forests of the North Woods.

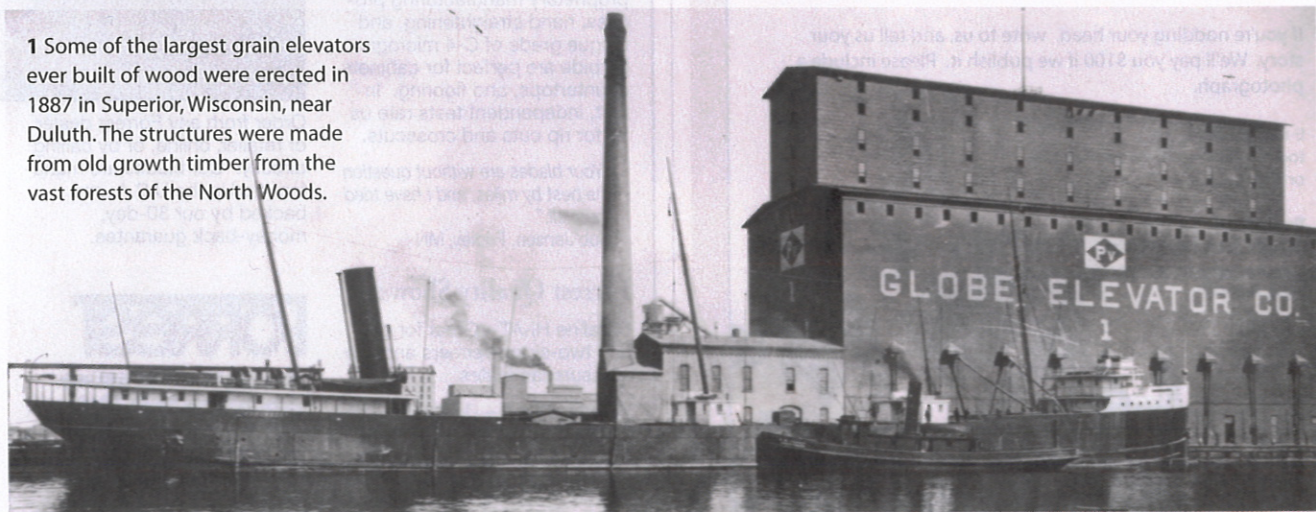


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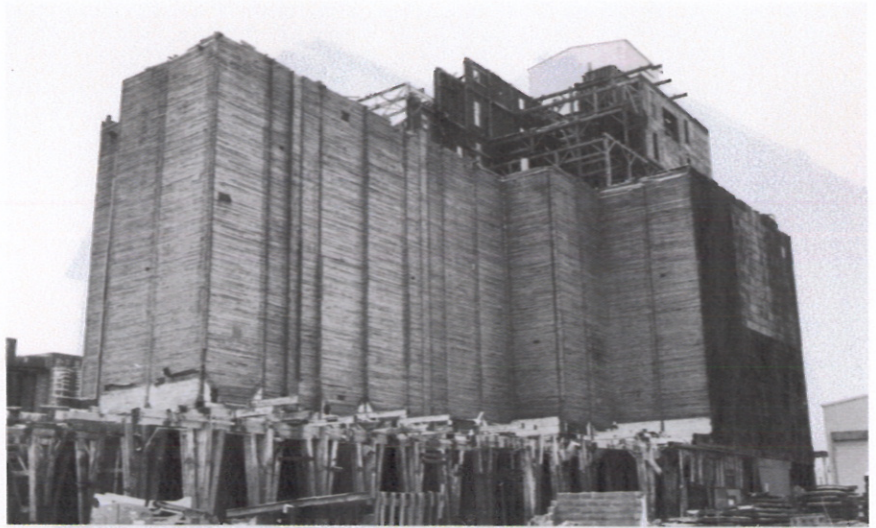
forests were depleted, it didn't take long for the wooden grain elevators and timber railway trestles of the 19th century to give way to cylindrical concrete grain elevators and bridges of steel.

The Globe's three wooden behemoths closed in 1997, but the weather-beaten buildings still stand, strung along a line a half a mile long next to an inlet of the Port of Duluth. Today, huge ships bound for ports all over the world come to load taconite from the Mesabi Iron Range and, at more modern grain elevators nearby, wheat, corn and soybeans from the plains of Minnesota and the Dakotas. Disused, the Globe complex was rescued from almost certain demolition and waste by the foresight of an entrepreneur named David Hozza, the founder and CEO of Wisconsin Woodchuck L.L.C., a company that salvages old-growth lumber.

What Hozza saw in these creaking old giants were not ramshackle dockside ruins but a resource worth preserving. Wisconsin Woodchuck is painstakingly dismantling the buildings (**Photos 2 through 4**). Its sister enterprise, The Old Globe Reclaimed Wood Company, directed by Tony Elvig, is selling the reclaimed lumber as certifiably antique material that tells a remarkable story. Most of the lumber is 2x6, 2x8, and 2x10 lengths of white pine that were spiked together face-to-face and staggered in such a way that the laminations formed continuous finger joints at the corners up and down the height of the elevators' hollow grain shafts (**Photo 5**).

The edges of the stacked planks that formed the interior surfaces of the shafts are beautifully eroded, like driftwood, from a century of flowing grain; the cataracts of corn, wheat, and barley acted abrasively on the wood like sandblasting (**Photo 6**). The bevel-ended 8x8's that you see in photo 4 are essentially giant washers for the iron tie rods that kept the walls of the hollow shafts from buckling outward under the pressure of tons and tons of grain.

During all the years they were in operation, the buildings were clad in corrugated iron, protecting the wood and its treasure of grain. The inside of the



2 Today, the Globe Grain elevators are slowly being dismantled to recover more than two million board feet of white pine lumber.



3 The ground and top floors of the elevator buildings were timber-framed with braced posts and beams.



4 This elevator has been stripped of the corrugated iron that sheathed the wood, protecting the wheat, corn, and barley from the fierce winters of Lake Superior.



5 A pair of crane-suspended "tuning forks" are used to grasp segments of the elevator walls so they can be cut with chain saws and lowered to the ground.

biggest building was an architectural wonder. The top floors housed ten enormous cast-iron pulley wheels, each weighing 4400 pounds. There were three huge grain distributors, each of which fed grain into an "octopus" that directed the grain into separate bins.

The job of dismantling the Globe Grain Elevators is expected to take several years (Photos 7 and 8). A small crew is working with a single crane to carefully cut, pry and lever manageable sections of

the shafts' walls apart before lowering them to the ground. Each member of the crew is rigged with a safety harness, as the gaping structures are pretty treacherous; a foot wrongly placed and someone could buy the farm.

The Old Globe Wood Reclaimed Wood Company is milling and resawing most of the 2" thick lumber into paneling and flooring for family cabins and lake homes in what Minnesotans call "Up North" (Photo 9). The faces of the planks are wire-brushed for texture. The lumber's black-oxidized holes left by the carpenters' old-fashioned square nails add even more to its character.

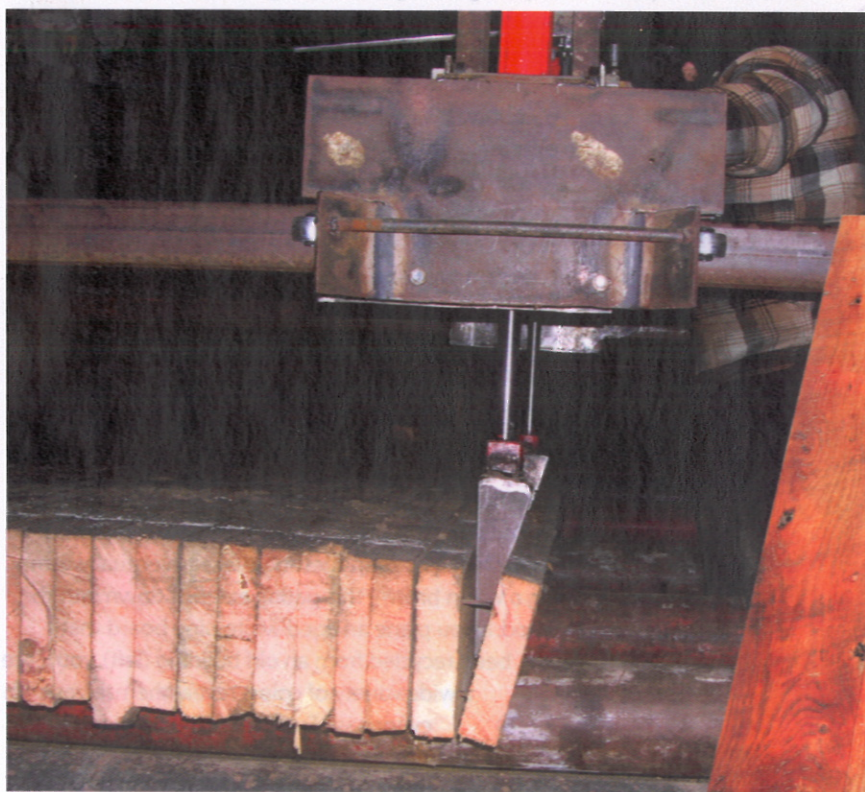
The heavy old-growth posts and beams that supported the Globe's elevators were mostly white pine, but oak and Douglas fir were also used. Old Globe sells lengths of these massive beams—mortises, tenons, holes and all—as material for fireplace mantles. Some of these fine old squared-up tree trunks were signed by the carpenters who built the elevators a hundred and twenty-five years ago, and a few were signed again by the sons of those carpenters working on the structures thirty years later. Their signatures dignify timbers the likes of which we'll never see again. 



6 The abrasive, sandblasting action of grain flowing through the elevators over 100 years sculpted the interior edges of the planks. These surfaces are being saved for their unusual character.



7 A small crew is working with a single crane to dismantle the three colossal elevators that made up the complex. The work is expected to take several years.



8 Segments are denailed using a custom-built set of hydraulic wedges to pry the planks apart.

SOURCES

- ◆ Wisconsin Woodchuck, www.wisconsinwoodchuck.net, (800) 853-8623.
- ◆ Old Globe Reclaimed Wood Company, www.oldglobewood.com, (218) 340-2056.



9 Cleared of nails, the wood is resawn and milled into boards for flooring and paneling.

The Magic of White Pine

by Tom Caspar

AAH, WHITE PINE. Just saying the name makes me smile. For a hand tool guy like me, it hardly gets any better; white pine is easy to plane, saw and pare. And the shavings smell so good, they transport me right back to the forest.

White pine (*Pinus strobus*) isn't your ordinary lumberyard pine. Construction lumber is usually a mixture of spruce, other types of pine, and fir (SPF, for short). These woods are denser and have a more uneven texture than white pine. SPF pieces are also likely to move a lot after they're sawn, for two reasons.

First, SPF is frequently sawn from small-diameter trees, so

boards often contain the pith. Second, construction lumber has a high moisture content (MC). It's only dried down to about 17 percent MC, so the wood has a ways to go before it stabilizes. White pine, on the other hand, is often cut from huge trees, far from the pith, and is usually available kiln-dried down to 7 to 9 percent MC, ready to be used in the woodshop.

Once dried, white pine is exceptionally stable and a pleasure to work. It shrinks and swells less than red oak or hard maple, for example, and is about on par with cherry. It has a uniform texture with inconspicuous growth rings, unlike construction lumber. You won't have the aggravation of catching an edge while planing or paring through alternating sections of soft earlywood and hard latewood. Your plane or chisel just glides right through the wood—except the knots, of course.

American woodworkers have always valued white pine. It was widely used in the colonial era for making everyday furniture because it was so plentiful and easy to work by hand. White pine's figure is fairly plain, so pieces were often stained or painted to brighten them up. White pine is pretty soft and easy to ding or scratch. It proudly bears its scars, though. All that old, humble furniture shows its history, and that's a big part of its charm. For fancier work, white pine was often used as a secondary wood. Many cabinetmakers used it for drawer sides and bottoms, cabinet backs, and as a ground for veneering.

White pine's appearance changes as it ages. Freshly cut, it's usually a pale straw color. Exposed to air and light, it turns a deeper yellow, like maple. But unlike maple, it keeps getting darker, eventually turning a warm brown. This patina extends down into the wood. If you plane an aged white pine board that's

been recycled from an old building (left), you'll see a wide variety of colors reveal themselves with every pass. Eventually, you'll get to the wood's original pale color, but the wood that's just under that old surface still has a lot to say: I'm an American classic, and I'm proud of it.