



Workers help Lancaster County Timber Frames erect a barn at the Plain & Fancy restaurant in Bird-in-Hand.

Framers find joy in form, function

Bird-in-Hand gift shop built almost entirely-by hand

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It's the way a lot of buildings around here used to be built.

Wood joined to wood. No nails. The most intricate angles cut by hand saw and chiseled to a perfect match.

Tony Zaya had taught for 20 years in Octorara when, just because he wanted to, he designed a timber frame structure.

"I watched it being put up," he says, "and I knew that was it. I had to do it."

Wednesday, he watches workers from his Lancaster County Timber Frames balance on the skeleton of a barn which will become a gift shop for Plain & Fancy in Bird-in-Hand.

Wednesday was wet. But it was still a big improvement from Monday, when the workers for Lancaster County Timber Frames and general contractor Paul Risk Associates Inc. were hit by snow.

Amish workers from another timber framing company clamber around on top. On the ground, someone from a Berks County timber framer lifts wood next to an acquaintance of Zaya.

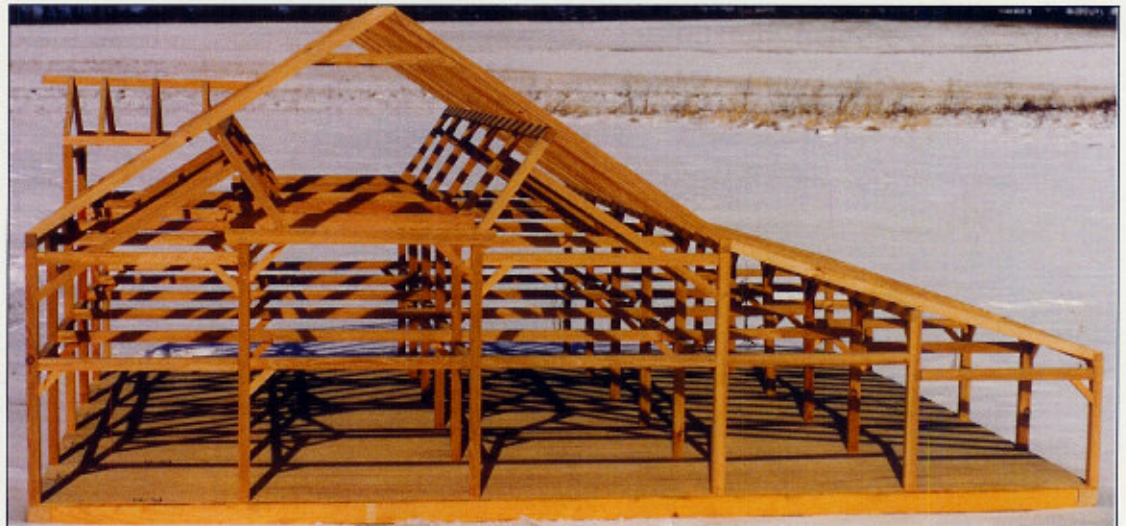
A huge yellow crane swings beams from the ground up to the roof. It isn't a typical Amish barnraising, Zaya says.

Between Zaya and his partners, Dale Kretzing, Joe McCarthy and Bruce Cowie, they've built about 150 timber frames. Only once, in a Habitat for Humanity project, has the building been raised by hand.

"You need too many friends — at least 100, to do it that way."

Still, some of this week's labor has been provided by workers from other timber framing companies, helping out one of their own. Others, says Zaya, are "timber frame junkies. There are just six or seven guys who just love it, and they'll show up if you need some help."

The building's design incorporates elements found in this county's typical barn. It



has a canted purlin roof system, and is, in barn architecture lingo, a "six bent posted four bay."

Each major profile, or dividing line of the barn, is a bent. The stall, or bay, is the space between each bent.

Everything is held together by pegged mortise and tenon joinery.

Even today, says Zaya, the traditions hold.

"The bay area typically is between 14 and 16 feet. That's the space needed for two oxen."

The whole structure is made of hemlock from northern Pennsylvania. It isn't as strong as oak, but hemlock will shrink less as time passes.

In the barn's center, a valley system is used where two differently angled roofs come together in a mighty web. Easy 90- and 45-degree angles aren't anywhere to be found here. This, says Zaya, "is where you

have to check your math three or four times."

Everything has been designed, measured, checked and "carved," or cut, at Lancaster County Timber Frames' shop outside Lititz. The puzzle is put together on site.

There are 500 pieces in the 70-by-70-foot frame. An average of four joints to a piece. Two thousand joints in all which have to be angled and carved. It took seven weeks.

That, says Zaya, is why he likes to find workers with backgrounds in engineering, architecture and cabinetmaking.

"They need to be used to fine detail work," he says.

"And the math in this is scary. You have to have a real strong liking of geometry."

There is still a market for these skills. The next project for Lancaster County Timber Frames is a home in Santa Fe, N.M.

Much of their work is outside of the county, Zaya says. That's something he would like to see change.

"I mean, this is how we used to do it. Until maybe 60, 70 years ago it was much more common."

The timber framing on Plain & Fancy's new barn is scheduled for completion today. Time tables call for the entire structure to be complete in April, and open to the public May 1.