



This Manheim area house, under construction, is a combination of conventional framing and timber framing.



An example of timber-framed construction is seen in this this great room.

Old becomes new

An ancient craft gains new appeal as it grows in efficiency

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For 20 years, Tony Zaya taught architectural drawing and wood shop.

Then, one day, "someone asked me to design a timber-frame structure," said Zaya, who was employed at Octorara High School at the time.

"It was so much fun to see it (the building) go up," he said, that he decided to change careers.

Zaya left teaching to become a timber framer and later started his own company, which now employs 11 people. "It was a natural transition," he insisted.

A co-owner of Lancaster County Timber Frames Inc., Lititz, which was founded five years ago, Zaya has seen the demand for timber-frame construction — an ancient building style that has been revived — gradually increase here and across the country.

While it's still expensive compared to conventional construction, more residential customers are discovering that timber framing is energy-efficient, long-lasting and uniquely attractive, Zaya said.

A timber frame is a structure made of horizontal, vertical and angled timbers, sized according to function and joined to one another to form a self-supporting unit.

A high level of craftsmanship is required, Zaya said. "It's like building a piece of furniture."

The terms timber frame and post-and-beam are not synonymous. All timber frames are post-and-beam, but not all post-and-beam, structures are timber frame.

In timber frames, mortise-and-tenon joints are cut into the actual timbers, while any method of connecting pieces can be used in post-and-beam.

Zaya, president of LCTF, said timber framing goes back many centuries. "The Pagoda in Japan was built in 640 A.D.," he said. Timber frame buildings in Europe date to around 1100 A.D., Zaya added.

He said timber framing was used in the early years of this country, but fell out of favor in the latter part of the 19th century because it was "too expensive, too labor-intensive

and not very energy-efficient."

A timber-frame revival started in the second half of the 20th century, thanks largely to the advent of structural insulated panels or SIP's, Zaya said, which were used for refrigeration.

"SIP's made timber framing very, very viable again" because of the increased energy-efficiency, Zaya said. "They make a great skin for timber framing."

He said multiple woods are employed. "For the first 10 years, we used oak," he said. "Pennsylvania has the best oak in the world."

"But it does shrink" so now LCTF relies on "a lot of recycled wood from warehouses out West," including cherry, walnut, mahogany and reharvested Douglas fir, Zaya explained.

LCTF has done projects in New Mexico, Tennessee (a church), New York and several other states. Its award-winning work has been featured in national magazines. "I even get a lot of inquiries from Alaska and Hawaii," Zaya said.

Locally, Zaya's company timber-framed the gift shop at Plain & Fancy Farm & Dining Room, Old Philadelphia Pike, and did work for Kinsey's Archery Products Inc., Mount Joy.

Right now, LCTF is building an 11,000-square-foot timber-framed house — using four different woods — in the Poconos. The client is a high-ranking executive with Goldman-Sachs.

Zaya also has a growing number of residential customers in Lancaster County. Some want the whole house timber-framed. "Others (about 50 percent) want a timber-framed great room or exposed trusses," he said.

Zaya said people like the beauty of timber framing. "It gives a feeling of strength and warmth."

The results of a recent survey of timber-frame customers surprised Zaya, he said. "When people were asked what they liked most, I would have guessed longevity. Instead, it was aesthetics. People like to look at it."

Zaya said LCTF's production has doubled in the past year, meaning timber framing is on a steady rise.

"Five years ago if you took the whole housing market and made it a pie chart, timber framing would have been a straight line," he said. "Now it's double that."

John Vastyan, who manages Stiegler, Wells & Brunswick Inc.'s Lancaster office, and his wife, Erika, chose to build a timber-frame great room in their new home near Manheim. They selected LCTF as the subcontractor.

Vastyan said his wife lived in Germany, so she's very familiar with timber-frame construction.

"We feel this brings age into the home," he said. "The Douglas fir beams are like those in a cathedral. It's just an incredible thing."

Kevin Hess, president of Elm Ridge Construction, Lititz, was the Vastyan's general contractor. Asked about the cost, he said a great room like the Vastyan's can add about \$20,000 more to the price of a home.

This is the first time he dealt with residential timber framing, Hess said. "It was a neat experience."

And it may reap dividends down the road. Hess said potential customers have toured the Vastyan house, "and we've actually had quite a bit of interest."

Well-known artist Bruce Johnson, an Annville resident, is another of Zaya's clients. He and his wife, Donna, are doubling the size of a lakeside cabin they own in the Poconos, in Pike County.

The timber-frame portion of the house was done in April. The home as a whole should be finished between Thanksgiving and Christmas, Johnson said.

The house includes a studio for Johnson, who is famous for his watercolor and pen-and-ink drawings, including the popular Penn State "Tailgating."

Watching the timber-framing process was amazing, Johnson said. "They needed to bring a crane in for the timber. It was incredible."

And he's just as thrilled with the result. "I'm delighted — absolutely delighted — with the work they did. I couldn't be happier," Johnson said.