

Conference Report:

The Timber Framers' Guild

Fancy joinery galore, but few conclusions from the stress-skin-panel panel

by Paul Hanke

The Timber Framers' Guild of North America is a nonprofit association of about 250 timber framers from the U.S. and Canada. From May 30 to June 1, about 300 people gathered for the Guild's second annual meeting in Marlboro, Vt., to hear reports, share information and view examples of each other's work.

Many attendees were from New England, which seems to have more than its share of modern-day framers: Tedd Benson, Jack Sobon, Ed Levin and Wayne Kondor come to mind. Other U.S. participants came from as far away as Michigan, Montana, Tennessee, and even Louisiana and Florida. The international contingent included framers from several Canadian provinces, a German tool manufacturer's rep, and English restorationist Peter McCurdy, one of the keynote speakers. Although most Guild members cut new frames, according to a conference spokeswoman, "at least 20" reconstruct and repair historic buildings here in the U.S.

The conference began on Friday with a trade show that featured various foam-panel products, examples of different joints, a computer-aided-design drafting demonstration, and a monstrous, 130-pound circular saw from Germany.

I joined a packed audience on Saturday morning to hear Peter McCurdy's lengthy presentation on his restoration work in England. McCurdy showed slides of both on-site repair work and of dismantling a frame to take to the workshop. The first half of his talk was an overview of buildings from the 14th to 18th centuries, including a 186-foot-long barn and a cluster of 17th- and 18th-century farm buildings—complete

with moat—that McCurdy saved for his own workshop.

McCurdy tries to preserve as much of the original material as possible in his work, but he also uses modern materials when necessary to make a repair. Slides of repair and reconstruction techniques from one particular on-site job showed "face patches" (a let-in patch bolted and epoxy-glued to the old timber; McCurdy even chisels away some material to match existing wane), scissors splices, and a sawing method to follow the camber of a timber for fitch-plate inserts.

Following McCurdy's presentation and a leisurely lunch, we reassembled for a lively talk by a conference favorite, Ben Brungaber, a University of Connecticut engineer with a special interest in heavy-timber construction. A popular repeat from last year's conference was Brungaber's test-to-failure demonstrations on samples of pegged mortise-and-tenon joints. An apparatus he brought pulled steadily on the joint while the audience watched a digital readout of the force required to induce failure. Brungaber's research has been reported in *Joiner's Quarterly* (\$5 per year from Fox Maple Press, Snowville Road, West Brownfield, Maine 04010). His thesis and computer software for joint design are also available.

After busting several joints, the enthusiastic Brungaber went on to show slides of a covered-bridge restoration for which he was hired as both foreman and engineer. These dual roles, he quipped, "never get along—

I expected fireworks from the panel committee's report on the controversial subject of stress-skin panels. But the report and the audience response were mild.

even when they're the same person." Characteristic of the humor that made him a highlight of the conference, he later noted that "just because something lasts a long time doesn't mean it was done right."

The rest of Saturday afternoon was devoted to the "Panel Panel," a committee report on the controversial subject of stress-skin foam panels. Apparently tempers flared so much over the subject last year that Tedd Benson introduced the session with an appeal to "avoid emotional outbursts and stick to the issues." I expected fireworks or at least something that would lend itself to a sensational headline for this article (perhaps "Melee Disrupts Timber-Frame Gathering"). However, both the report and the audience response were mildness itself.

The committee opened its report by listing the factors to look for in a foam panel, including structural strength, moisture permeability, flame spread, toxicity during combustion, outgassing, aged R-value, and skin type (plywood, chipboard, oriented-strand board or drywall). The major choice in panels seems to be between beadboard cores or urethane and its relatives. (Phenolics and extruded polystyrene are not available in panel form at this time.)

The choice between competing core materials apparently is where the controversy lies, with each camp having strong loyalties to the "Fords" and "Chevys" of the indus-



Ancient art joins modern technology in many timber-frame homes, such as this one, which combines hand-worked oak timbers with urethane-core stress-skin panels. The house was built by panel maker Bud Couto of Atlas Industries in Lunenburg, Mass.

try. Interestingly, no one spoke on alternatives to stress-skin panels, a fact noted by my tablemate at dinner, who said the firm he works for in Maine stays competitive without using the panels.

The main thing I learned from the presentation was that urethane is made with many different and complex chemical formulations. A change in any one of these may affect one or more of the important properties described. You can't tell how the final

of the frame. However, when NEB's Alex Wilson and I questioned him further during a break, it turned out that the house, which is located in snowy Vermont, had single glazing on the windows, and the fellow we spoke to "didn't know" whether a poly vapor barrier lay under the slab floor in the basement (an important item in moisture control). My conclusion was that there is much more to house building than a good frame, which seemed to be overlooked by some of those present.

The evening slides were by far the highlight of the conference for me. In this popular repeat event, those who wish to can present 10 slides of their work and talk briefly. High points were the finely embellished work of Pagoda Frames; a contemporary house from Iowa (departing from the more traditional work that derives from our New England forebears); and an intricately carved Eastern Orthodox chapel.

Other presentations that caught my eye were Jack Sobon's use of natural tree crotches for posts in his own house, a slide tour of German half-timber houses, and a reproduction of a French chateau with five levels and 96-foot-long ells. In the last case, the builder noted that "the architect, in his wisdom" (a phrase heard several times during the day) had added a two-inch-thick concrete floor to one of the upper levels, which was not part of the original plan. As a result, two concrete piers in the foundation were crushed, but the frame itself was undamaged (more audience applause).

Perhaps my favorite building of the evening was a wonderful hexagonal Catholic church in Canada. To my eye, the frame was exquisite, but the finished building suffered from its exterior cladding and articulation, and from an unfortunate attached gambrel structure. This example reinforced my view that a little "architect's wisdom" can actually help in some cases, and that there definitely is more to good architecture and building than a good frame, which perhaps should be acknowledged in future conferences and individual projects.

Still, the conference was interesting and enjoyable, and I would go again, even though I'm not involved with timber framing on a daily basis. More information can be obtained from the Timber Framers' Guild of North America, R R 1, Box 207, Alstead, N.H. 03602. ■



A hefty oak post, end girt and knee brace mortised and tenoned and pegged for a rugged and attractive joint.