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Joint Venture

*Human
compassion is
furthered when
a time-honored
construction
technique
brings together
the Timber
Framers Guild
of North
America and
Habitat for
Humanity.*



By Anthony F. Zaya



TOP: Hand raising a bent at the Habitat for Humanity site in Hanover, PA

On May 18, the Timber Framers Guild of North America will begin its Fifth Annual Conference. This year the conference will be held at Millersville University. Arriving with the Timber Framers will be more than 350 hand-carved oak and fir timbers from all points in the United States and Canada. Pieces are also being shipped from England, Japan, and West Germany.

Concurrently, more than 300 York Habitat for Humanity volunteers will be arriving at Hanover.

The Timber Framers will hand raise the frames of two houses and cover the frames with stress-skin. At this point, eight hours after the first two timbers were joined, York Habitat volunteers will take over and complete the houses.

The Timber Framers Guild is comprised of 750 members who are engaged in the craft of joining large wood structural members to one another with various mortise and tenon configurations, dovetails and scarfs to form the skeleton of a house, church or barn. Typically, the joints are held in place with 1" diameter hardwood pegs. The skeletal structure is then wrapped with stress-skin panels (a laminate of drywall, foam insulation, and plywood or oriented strand board). The heavy timbered skeleton yields an incredibly enduring structure; the stress-skin covering offers a super insulated, uninterrupted outer wall. The frame is fully exposed on the interior of the house.

York Habitat has as its basic premise that

everyone should have a decent, affordable place to live. While it is a nonprofit organization, it is neither a give-away program nor one which throws money at poverty. It is instead concerned with a broader vision. The dwellings are built or renovated using volunteer labor and as much donated material as possible. Capital comes from church, individual, and corporate donations as well as mortgage payments from those houses previously sold. The homeowners are required to complete 500 hours of work in the building of their own home and those of other prospective homeowners.

This spring, two separate and wholly distinct groups join together their skills and passions. Sixty-four hours after these two groups converge, two new houses will be ready for occupancy by limited income families.

Habitat families are chosen according to need, ability to pay, and character. Need is based on the condition of their current shelter. Ability is based on stability of income and character, on ability to handle the responsibilities of homeownership, and willingness to participate in the community of helping others.

Houses are sold at cost, but with a no interest mortgage held by Habitat. Typical payments are \$125 per month.

Neither race nor religion is any factor in determining who receives a Habitat home. Habitat in York, Lancaster, Philadelphia, or anyplace in the United States does not build temporary housing. They do build simple, comfortable, permanent homes.

Timber framed structures are long lived. The Pagoda and the Golden Temple in Japan are both timber framed and date back to the sixth century. Outstanding examples also abound in all parts of Europe in the



Above: President Jimmy Carter added his own input at Philadelphia Habitat for Humanity in the summer of 1988.

Top: A finished post is receiving a bent girl. The shouldered mortise and tenon is the primary joint used in framing.

form of churches, cathedrals, houses, and barns. In this country, New England boasts most of the examples of timber framing followed by other eastern states including Pennsylvania. Timber framing is very heavy work. The most common component is made of oak, a full eight inches square, up to sixteen feet long. Such a timber weighs up to 900 pounds. It is exacting work.

Tolerances are so close that pencil lines are not accurate enough. Layout lines must be drawn with blades and awls. It is complicated work. In a typical frame, up to 1000 joints converge not only at right angles, but often at compound angles. A single error in calculation can be devastating. Timber framing is labor intensive. While two good workers can frame a conventional stick built house in a matter of days, it would take two timber framers a month or more to reach the same point. It is honest work. The soul of the house is always visible. Unlike conventional stick framing where mistakes, miscalculations, and shoddy workmanship can be easily hidden behind drywall and paneling, the timber frame and its joints are exposed for all to see. The timber framed house is not inexpensive. Beauty, integrity, and energy efficiency do cost more per square foot, \$5-15 more than the conventional custom home. But, in contradiction, it can be stated that the timber frame is a very inexpensive house. Based on a very important consideration of longevity, mobile homes are the most expensive form of housing you can buy today and timber framing one of the least costly.

The typical Habitat employee earns from twelve to eighteen thousand dollars yearly – not a particularly heady salary. Habitat's feeling on such salaries is that paid will be better able to work and empathize with those they help. Those who support Habitat know that

almost all of their donation goes directly to help those for whom it was intended, not to large salaries, bonuses, or perks for the administrative staff.

York Habitat has two salaried employees, a part-time site supervisor, Bert Palmer, and a project coordinator, Jean Shipman. York Habitat has been in existence only four years. In fact, until last year when Ms. Shipman, a twenty-three-year-old University of Pittsburgh graduate, was hired, York Habitat had no full-time employee on its staff.

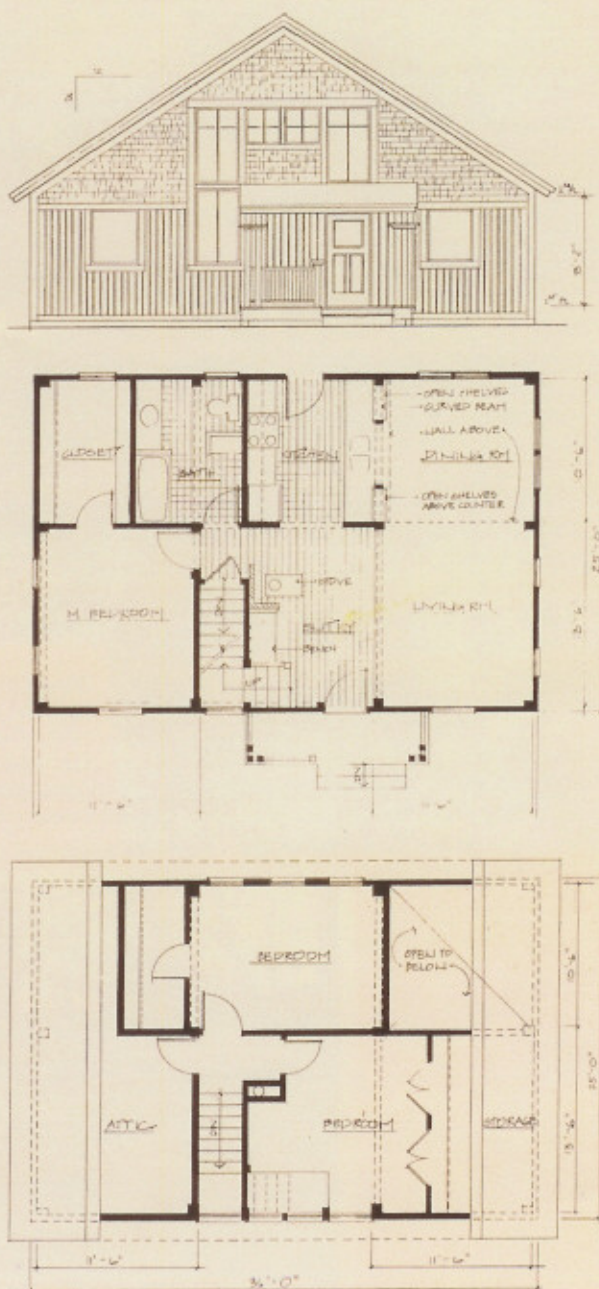
The Timber Framers Guild of North America has been in existence only five years. Tedd Benson, a former social worker, is a founding father of the Guild. Tedd became interested, or more exactly obsessed, with timber framing when he tried to take down a timber frame barn in New England. As he tried, at first in vain, with a series of progressively more powerful trucks to pull it down, he became more and more intrigued by its integral strength. By the time Tedd resorted to a chain saw, his journey into researching the joinery of such powerful structures was in full swing. His subsequent research led to two books, the first of which fostered a resurgence of timber framing and saw the number of timber framers grow from barely a handful in the early seventies to nearly 750 today.

Almost two years ago, the idea of having Guild members each donate a timber that would be integrated with others to yield a frame was conceived. The frame would be donated to a worthy cause. Habitat for Humanity, a grass-roots Christian movement which became visible when former president Jimmy Carter was found to be one of its volunteers, was suggested. Tedd sought out several Habitat affiliates. All were appreciative of the offer but declined due to complexity and magnitude of the effort required. Within a week of becoming project coordinator of York Habitat, Jean Shipman came across a memo outlining the offer. Having no knowledge of timber framing but equipped with raw enthusiasm, she



Habitat Designs Revised

Front elevation and floor plans of the Habitat house designed by Katherine Cartrette of Mulfinger, Susanka (Minneapolis). The facade has been simplified somewhat and the floor plans adjusted in part to take account of framing requirements and requests by Habitat. The object of the design is to achieve a house that is small, simple, pleasant and capable of interesting variations, particularly in the likely case the Guild produces two frames. Above, plan of the first floor. Below, the second floor.



Top: Pictured is a bent, one of several used in the profile of a structure. They are lifted by crane and joined to each other with connection girts and/or joists. The one-inch pegs are later cut flush and sanded.



contacted Tedd Benson. At a meeting set up by Tedd Benson, Jean convinced the Guild board that she was serious and her organization was capable of seeing the project to fruition. A classic case of inexperience coupled with vision being able to focus on outcome not obstacles, Jean impressed the Guild. Its members were canvassed to determine if there were enough willing to spend the time and energy necessary. The response was overwhelming. Enough interest was generated to build two frames.

Guild members submitted plans. Architect Katherine Cartrette of Minneapolis submitted the winning design. Guild volunteers were given designated timbers to carve. Jean handled her end by lining up volunteers to finish the houses after the Guild erected and enclosed the frames. There were permits to secure, foundations to be laid, plans to be made for the completion of the houses, support services to be secured, etc. While the project progressed, the media began to see the uniqueness of this event. Fine Homebuilding Magazine is going to cover the event. Country Journal has expressed interest as has CNN and "This Old House". The BBC is committed to covering the event.

The Guild members share, perhaps more than any other building group or organization in this country, some strong common denominators. Most entered the profession at an older age. Most are socially and environmentally concerned and involved. Most are college educated. To the majority, timber framing is not a job or even a profession, but a passion.

Habitat workers are underpaid. Few put in only forty hours a week. They are a dedicated lot who are doing their best to help the 2 to 3 million people in this country who have no shelter.

The Guild and Habitat. Two distinct groups. One dedicated to reviving and refining a craft millenniums old. The other, a humanistic group with a religious base; a concerned gathering offering not just shelter but homes; not just homes but hope. It is fitting that these two young groups mesh this spring.

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